

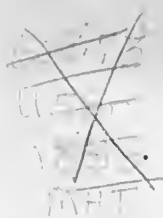






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# ANNUAL REPORT



OF THE

# COMMISSIONER OF PATENTS

FOR

THE YEAR 1888.



WASHINGTON:  
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1889.



ANNUAL REPORT  
OF THE  
COMMISSIONER OF PATENTS  
TO CONGRESS,  
FOR THE YEAR ENDING DECEMBER 31, 1888.

Laid before the House of Representatives by the Speaker, January 31, 1889, referred to the Committee on Patents, and ordered to be printed.

DEPARTMENT OF THE INTERIOR,  
UNITED STATES PATENT OFFICE,  
Washington, D. C., January 31, 1889.

*To the Senate and House of Representatives of the  
United States of America in Congress assembled:*

It is provided by section 494 of the Revised Statutes that—

The Commissioner of Patents shall lay before Congress in the month of January, annually, a report giving a detailed statement of all moneys received for patents, for copies of records or drawings, or from any other source whatever; a detailed statement of all expenditures for contingent and miscellaneous expenses; a list of all patents which were granted during the preceding year, designating under proper heads the subjects of such patents; an alphabetical list of all the patentees, with their places of residence; a list of all patents which have been extended during the year; and such other information of the condition of the Patent Office as may be useful to Congress or the public.

Since the date of my last report there has been little or no change in the conditions under which this Bureau existed. The country has passed through an exciting Presidential election, which, together with the consideration of political and economical questions involved, invariably attracts not only the attention of the people, but Congress itself, for months before as well as after the event, from matters of serious import in relation to many matters of public importance. Such appears to have been the result with reference to many needs of the Patent Office in relation to its business affairs as well as changes and modifications in the patent laws. The suggestions I then made were deemed pertinent to the condition of the Office, and as the conditions have changed only in becoming more pressing and urgent, I feel authorized in renewing them.

There are certain subjects which I regard as of paramount importance, to which the attention of Congress should be directed in order that appropriate legislation may be enacted, with a view to improving the law applicable to patent property and the condition of the Patent Office for the commodious and expeditious transaction of the public business.

ROOM IN THE PATENT OFFICE.

For several years past the annual reports of my predecessors have called the attention of Congress to the utter inadequacy of room and facilities for conducting the business of the Patent Office. This building, I am advised, was constructed from the fund of the Patent Office—a fund which was not raised by taxation upon the people, but was an accumulation

from fees paid in by the inventors of the country, and it may not be inappropriate to say that the inventors themselves, as well as their representatives, attorneys, and others, are properly insisting upon the idea that this building ought to be at least so far devoted to the business of the Patent Office that ample room will be provided for its conduct, and facilities afforded which will secure the consideration of applications for patents and the issuance of the same without unnecessary delay, expense, or inconvenience. But the building is now occupied by the Secretary of the Interior, the Commissioner of the General Land Office, and the Commissioner of Patents. The result is, owing to the increase in business of the Government in each of these various branches, that neither the Secretary of the Interior, the Commissioner of the General Land Office, nor the Commissioner of Patents has sufficient room to conduct the business with the dispatch and promptness which the public is entitled to expect. The various divisions of the Patent Office are crowded into narrow, inconvenient, and, in many instances, unhealthy limits. The records and drawings and other material, which should be conveniently arranged and made accessible in proper rooms, are stored in corridors and by-way places, where classification is almost impossible, and where access can only be had to the particular subjects desired after long search and delay. Not only this, but great quantities of valuable records, descriptions, specifications, and drawings are constantly exposed to the danger of conflagrations involving the safety of the entire building. It needs only an examination or investigation to demonstrate the absolute necessity that exists for making some change in the arrangement between the bureaus occupying this building in order that each shall have proper room and facilities to discharge its respective functions. The force under the control of the Commissioner of Patents is scattered and located in remote parts of the building on different floors to such an extent that in order to communicate with the various divisions, transfer records back and forth, and conduct the business, much more time and a greater amount of labor are required than would otherwise be involved. If some arrangement could be made by which the force could be located conveniently and compactly, in my judgment almost if not quite enough could be saved in the curtailment of expenses and saving of time to provide for the rental of another

building which would meet the demands of either one of the other bureaus mentioned.

The Commissioner of Patents is not possessed of sufficient information to suggest what arrangement should be made, or whether it would be advisable for the Government to rent other buildings in which to locate any one of the bureaus, or whether such bureau should be transferred to some other of the public buildings; but the fact is pointed out that the Commissioner of Patents ought at least to be furnished in a building constructed out of the patent fund with sufficient room to conduct the business of the Patent Office conveniently, expeditiously, and without delay to its patrons.

I most urgently call the attention of Congress to this subject and request consideration.

#### OFFICIAL GAZETTE.

Under the present statute the Patent Office publishes 6,500 copies of the OFFICIAL GAZETTE, of which 2,265 copies are sold and delivered upon subscription at the price of \$5 per year. Under the provisions of the act of May 18, 1872, 3,221 copies are distributed to public libraries, members of Congress, and public officers. This publication is one of the most useful and complete of the kind which has ever been published. Its usefulness and importance are well known to Congress, and need not be dwelt upon. It will not be inappropriate, however, to call attention to the mechanical features of the publication, the requirements involved for photolithography, and the method of printing the same. This work contains a complete illustrated and defined history of art, so far as covered by patents, in the United States, from the time of its first publication down to the present day. As is well known, the drawings which accompany every application for a patent are necessarily required to be reproduced and made a part of the patent itself when it is issued. Under the present system this photolithographic copy of the drawing, reduced in size, is published by the Office to meet a demand for copies coming from all parts of the United States and from foreign countries. It is not within my power at present to state the number of copies of patents, specifications, and drawings which are called for; but the demand is great, and the charges made for these copies furnish an important source of revenue to the Office. In order to meet this demand it is necessary, as just stated, that the drawing be reproduced of a size requisite to be made a part of the patent and to be conveniently sent to persons requiring copies. This involves the necessity of employing photolithography. It may not be generally known that the OFFICIAL GAZETTE, excepting the front and closing pages, containing opinions and decisions of the courts and the Commissioner and the index, is a purely photolithographic production. The pages containing the drawings and the claims in type are photolithographed.

For several years Congress has appropriated about one hundred and thirty thousand dollars per year to provide for the production of copies of patents, designs, trade-marks, pending applications, and for the reproduction of exhausted copies. This photolithography is required by statute to be done by contract. On several occasions experiments have been made to

have this work done elsewhere than in the city of Washington; but in every instance of which I am aware the experiment proved a failure, the work either not being up to the required standard of excellence or being so delayed as to practically interfere with the work of the Office and prevent the prompt issuing of patents. The inconvenience attending these experiments has been so serious that for several years Congress has inserted in the appropriation bills the requirement found in the act approved March 3, 1885, as follows:

Said photolithography or otherwise producing plates and copies referred to in this and the two preceding paragraphs to be done under the supervision of the Commissioner of Patents, and in the city of Washington, if it can be there done at reasonable rates; and the Commissioner of Patents, under the direction of the Secretary of the Interior, shall be authorized to make contracts therefor.

The contracts entered into for the performance of this work have generally been made to run from the beginning to the expiration of the fiscal year. Prior to the 30th of June, 1887, the present Commissioner directed an inquiry to be made, and sent an agent to the principal Eastern cities to ascertain at what rates work of this character could be done in those cities, and received what is believed to be entirely reliable and satisfactory information that the rates fixed by the present contract for doing this work are below those which would be demanded elsewhere.

To explain in greater detail the usefulness and manner of conducting this photolithographic work, I quote from the report of my immediate predecessor:

Under the practice which now obtains in this Office, on Friday morning of each week preparations are begun for the patenting of all applications which have been allowed and in which the final Government fee has been paid during the week next preceding. To secure a proper reproduction of such cases, it is necessary that the original drawings be transmitted to the Office where the work of photolithography is performed. On each Friday morning the drawings which are ready are sent to the photolithographer, where the proof-sheets are prepared. At noon of the same day these are returned to this Office and another lot of drawings taken. About four o'clock of the same day proof-sheets of these last-mentioned drawings are returned, and other drawings again taken; and so this work of photolithography continues day by day. Upon the return of the proof-sheets to this Office careful comparison with the original drawing must be made by the employees here, and imperfect sheets (which amount to about five per cent. of the whole) must be corrected and returned without delay.

From the fact that the original drawings must be sent to the photolithographer for reproduction, and when it is considered that these drawings constitute the only illustrated record in the Patent Office of the inventions involved—as under the present rules of the Office models are dispensed with—it is apparent that any loss or damage thereto would not only greatly embarrass the Office, but result in serious injury to inventors. Doubtless, in view of these considerations, a requirement was inserted in the present contract that the original drawings and corrected proofs must be returned to the Patent Office within one and one-half day from the delivery to the contractor of such original drawings.

It is not absolutely impracticable that the work of preparing the OFFICIAL GAZETTE be performed elsewhere than in this city, provided the place be not too remote. This undoubtedly would be attended at times with serious inconvenience. For manifest reasons, however, the work of preparing the current issues of patents must be done in this city, and the proper reproduction elsewhere is simply impracticable, if not impossible. Inasmuch as proof-sheets of the photolithographs of the current issues are used in the preparation of the OFFICIAL GAZETTE, it need hardly be said that this work *entire* can probably be more cheaply performed by one firm than by several independent firms or contractors.

I have no doubt that all this work should and will in time be done by the Patent Office itself. It should not be dependent upon contractors. When the patent system is revised, corrected, and improved, as it probably should and doubtless will be in the not distant future, this important subject will be at least carefully considered.

The appropriation of Congress for the present fiscal year was—

For OFFICIAL GAZETTE.....	\$44,000
For copies of patents, designs, trade-marks, exhausted copies, &c.....	90,000

#### LABORATORY.

The attention of Congress has been in former reports



of the Commissioners of Patents repeatedly called to the need in this Bureau of a laboratory containing the necessary apparatus for testing inventions relating to electricity, and to conduct experiments pertaining to processes and products involving chemical results. This necessity is one which scarcely needs illustration or explanation when it is considered that many of the most important and valuable inventions relate to these two classes of art. Electrical processes and apparatus—such as the telephone and improvements in telegraphy—are so well recognized in importance and value as to require no comment, and yet the determination of whether a new invention has been made in these arts, or an improvement involving novelty and utility, can be reached only by means of proper testing apparatus. This is also especially true in the field of chemistry—processes for the treatment of iron, producing by chemical means new qualities, and resolving crude iron into fine steel. Such subjects are being continually presented, and the examiner in charge is called upon to determine whether these results are accomplished by the processes claimed. The assertions of the applicants are supported by affidavits of parties in interest and by statements which appear to be reliable, and yet, in the absence of some means of testing the truth of the facts claimed, it is impossible for the Office to determine with that degree of certainty which should exist whether the invention is novel and useful and should be covered by a patent.

I recommend that some reasonable appropriation be made to provide for the purchase, from time to time, of apparatus and material suitable for a laboratory for these purposes.

#### EMPLOYÉS.

The business of the Patent Office is constantly increasing. Occasionally there is a slight falling off in the number of applications for patents; but this continues for a time only, when the increase begins again. The number of patents issued, however, is not an accurate criterion of the amount of business done in the Office. The examination of an application for a patent involves an examination of the state of the art for the entire world. The issuance of patents, as well as other publications, constitute *prima facie* a bar to an application the same as the issuance of a patent for the same invention in this country does. Consequently the mass of matter to be examined by the examiner in each class of art is increased each year by the patents and publications of the year. The field to be investigated and examined grows in extent year by year, increasing the time and labor requisite for a proper examination of an application for a patent. Besides this, the demands upon the Office for certified copies of records and drawings and for copies of patents are constantly increasing. The number of assignments and other instruments sent to the Office for record is also increasing, and the correspondence is accordingly increased. The number of applications requiring examination which were received during the last year was 41,351, which, in round numbers, averages 800 per week. The number of patents and certificates of registration of labels and trade-marks during the same period was 21,892, averaging 421 per week, showing a percentage of not quite fifty per centum of rejected

applications. It is evident that the number of applications will hereafter increase, as well as the general business of the Office. To transact this large and important business requires the necessary force and the requisite room and facilities. I have already referred to the crowded condition of the force in the Patent Office. The model-room, which originated in the suggestions of Thomas Jefferson, who insisted that the Government should establish a museum showing and illustrating the progress and advance of art from the beginning of the Government, has been curtailed and limited by the construction of rooms for examiners. The scientific library is packed and crowded within such narrow limits that its usefulness is greatly impaired. By the last appropriation made by Congress for the Patent Office the Commissioner was authorized to appoint two additional Principal Examiners to enable the organization of new divisions in the Office. It was not until the latter part of November that a room could be secured for carrying into effect this provision.

In my last annual report, resting under the confident expectation that the Bureau of the Land Office would be removed and additional room and facilities extended to the Patent Office, I expressed the belief that, with the increased advantages, the present force would be competent to transact the business and keep up the work; but the changes contemplated did not occur, and to-day the conditions are less favorable than before. The necessity for largely-increased room is not limited alone to the business, but the health and ordinary comfort of the employés are seriously involved. As heretofore stated, a great number of the rooms occupied by the employés are poorly ventilated, unhealthy, and are only adapted for storage.

#### LEGISLATION.

Attention was called in the Commissioner's last report to Congress to certain changes and modifications of the statutes relating to patents. Since such time experience has only confirmed me in the propriety of my former suggestions, and I herewith renew them in connection with others.

##### 1. *Date of the patent.*

Section 4885 Revised Statutes provides—

Every patent shall bear date as of a day not later than six months from the time at which it was passed and allowed and notice thereof was sent to the applicant or his agent; and if the final fee is not paid within that period the patent shall be withheld.

This provision enables an applicant who fails to pay the final fee within six months after the allowance of his application to prolong the monopoly of his patent the period of six months, and it not infrequently occurs that parties having what they regard to be valuable inventions permit their applications to forfeit in order that they may avail themselves of section 4897, which allows them to make a renewal application for the same invention upon the payment of a new fee, but without filing any new papers, the original application, specification, and drawings being used. A new allowance is thus obtained of an application for the same invention, and this allowance may remain for six months after the expiration of the intervening two years before the party takes out his patent. The result of this practice is that, unless the

application is barred by a public use which may intervene, an applicant has it in his power under these statutes to prolong the term of the patent which he may secure for an almost indefinite period.

I respectfully suggest that section 4885 be amended so as to require that the term of the patent when issued shall begin with the date on which the application was passed and allowed, and notice thereof sent to the applicant or his agent, applicant of course being allowed six months within which to pay the final fee and take out his patent, and that all renewals authorized in case of a forfeiture for non-payment of final fee be limited to the same claims, except in case of inadvertence or mistake, and that when so renewed the term of the patent begin with the date of the original allowance. The justice of this provision, as well as its wisdom, will be apparent from a consideration of the fact that in issuing the patent there arises by implication a contract between the Government on the one hand and the patentee on the other that the latter shall have the exclusive enjoyment of the patented property for a definite period, at the expiration of which period the property becomes that of the public. The United States extends to patentees more liberal protection and for a longer time than any other Government—17 years—and it is neither just nor right to the public which is thus liberal and generous that there shall be found under this legislation methods by which the inventor can defeat the provisions which contemplate a termination of the monopoly, and be able to prolong its enjoyment for many years beyond the period contemplated by law.

## 2. *Limitation of term of United States patent by foreign patent.*

Section 4887, after declaring that no person shall be debarred from receiving a patent in this country for his invention or discovery, nor shall any patent be declared invalid by reason of the invention having been first patented or caused to be patented in a foreign country, provides—

But every patent granted for an invention which has been previously patented in a foreign country shall be so limited as to expire at the same time with the foreign patent, or, if there be more than one, at the same time with the one having the shortest term, and in no case shall it be in force more than seventeen years.

It is understood that the object of this legislation originally was to prevent an inventor from allowing the people of foreign nations to come into the free enjoyment of his invention at an earlier period than was permitted the people of our country, which earlier enjoyment resulted from the fact that the term of American patents, as just stated, is much longer than any allowed by foreign governments, so that it was impossible for an American inventor to take out a foreign patent without disclosing and making public his invention after the expiration of the shorter term in such foreign country. In the meantime the American people were excluded from the free enjoyment of the invention during the period intervening between the expiration of the foreign patent and the American patent. But I believe those conversant with the subject have never seen any wisdom in this provision of the law. A great deal of trouble and annoyance have resulted from it to inventors, both

American and foreign, without, so far as is known, advantaging any one.

It is evident that the American patentee is entitled to 17 years of protection under the patent granted him by this Government. There ought to be no distinction between an American inventor who takes out a patent at home but none abroad and one who takes out patents in both his own and some other country. Yet the American patentee who omits to take out a patent abroad makes his invention public and free in all the countries of the world during the entire period, because his American patent becomes a publication which discloses the invention and prevents him from taking out any patents in foreign countries under the systems existing there, so that in such cases the people of foreign countries acquire the free use of an invention from the date of its publication in America, while the people of America submit to the monopoly enjoyed by the patentee during the entire period of 17 years. The consequence of these conditions is that if the American patentee takes out his foreign patent first his domestic patent is limited in term to the short duration of the patent abroad. If, on the other hand, he takes out his American patent first, he is barred from taking out any patent under the foreign systems, which provide that any publication of a patent shall bar a patent in those countries. This inequity of the law has forced inventors both in America and abroad, at much trouble and expense, to arrange, wherever it was possible, to have their foreign and domestic patents issue on the same day, so that neither of the conditions alluded to could attach.

It is also suggested, in view of the fact that the number of Americans taking out patents abroad very largely exceeds the number of foreigners who take out patents in this country, that these conditions of law have operated much more disadvantageously to Americans than to foreigners, and that therefore there should be some modification in the law.

These difficulties and others which need not be elaborated in this connection have become so well recognized, for they not only exist between Americans and foreigners, but between the different nations of Europe as well, that for some years past representatives of various governments have met together for the purpose of adopting and establishing articles of an International Union for the Protection of Industrial Property. Conventions were held in Rome and at Paris, and finally articles of a union were adopted on the 20th of March, 1883, acceded to by Belgium, Brazil, Spain, France, Guatemala, Italy, the Netherlands, Portugal, Salvador, Servia, and Switzerland, the latter state being assigned the position of intermediary, through whom those adhering to the Union were to communicate with other States in relation to its objects. Subsequently other states gave their adhesion and became members of the Union, viz: Great Britain, Tunis, Norway, Sweden, the Dominican Republic, and the United States. (A copy of the articles and protocols constituting this Union is attached to the last annual report of the Commissioner of Patents to Congress.)

The adhesion of the United States to this Union was ratified on March 29, 1887. The purpose of this Union is to provide that persons who have made applications

for patents in one of the States of the Union shall have a definite period thereafter within which to file their applications in other countries as of the same date at which their original applications were filed, and that no publication or use of the invention during that period can deprive the applicants of their right of priority in all the States in which such applications were filed. It will be seen that this provision was intended to meet one of the very difficulties existing under section 4887 of the Revised Statutes, and which was heightened by the requirement that the term of the American patent should be limited by any patent issued to the patentee in foreign countries.

The advantages to American citizens under this Union are set forth in Article 4 of the Convention, to the effect that any person who has filed an application for a patent, or who has applied for the registration of a Trade-Mark in the United States, shall be entitled to priority in other countries of the Union as against persons making similar applications within a period defined. A person having applied for a patent in this country is entitled to have his case considered, if filed in another country, the same as if filed simultaneously with the application here.

There is great advantage in this in all countries where the patent is granted to the first applicant, which is generally the case in Continental Europe and England; but it unfortunately happens under section 4887 that every patent granted in this country for an invention which has been previously patented in a foreign country is limited to expire with the foreign patent having the shortest term. It is well known that under the American system an examination of all applications must be made before the patent issues, and generally five, six, or seven months elapse after an application is filed before patent issues. The result is that the American inventor who desires to avail himself of the advantages of the treaty is in danger of having his foreign patent granted first, for the reason, as just stated, that such foreign patent issues almost immediately after the application is filed, and therefore necessarily the term of his domestic patent is abridged by it.

This is the manner in which this condition of things affects the American inventor; but the foreign inventor who comes to this country for a patent is not thus injuriously affected, because there is no provision under the European system that their patents shall be limited by the duration of an American patent; and if there were such, it would produce no limitation, because the American term, as already stated, is generally much longer than the terms provided by most of the European States. In my opinion, there is no reason for continuing this limitation contained in the last clause of section 4887. While it stands it is almost a complete bar to the enjoyment of the privileges of this Union between the various States named and the United States. The repeal of this clause has been suggested in the reports of the Commissioners heretofore. It is a source of much vexation to the inventors and of trouble to the Patent Office; it is out of harmony with the spirit of our patent law, and, in my judgment, it ought to be repealed.

### 3. *Caveats.*

Under section 4902 of the Revised Statutes, relating to caveats, it is provided that any citizen of the United

States may file a caveat; also, that "an alien shall have the privilege herein granted if he has resided in the United States one year next preceding the filing of his caveat, and has made oath of his intention to become a citizen." Here is a denial by implication of the right of an alien who has not been a resident and made oath to file a caveat. But under the treaty or International Union, above mentioned, there is an express provision giving to citizens and subjects of foreign States the same rights and privileges with respect to industrial property that are by such foreign States, members of the Union, extended to the citizens of other States members thereof. It may well be doubted whether this treaty can effectuate itself as a law and authorize the citizen of one of these foreign States who has not resided here one year and made the oath to file a caveat, although by the law of such foreign State the privilege is freely extended to an American citizen. I recommend that section 4902 be so amended as to provide that so long as the United States remains a party to said International Union and said provision remains in force citizens of the States members of said Union which extend the same privilege to American citizens may be allowed to file caveats in the Patent Office without regard to residence or oath.

### 4. *Assignments of patents.*

Section 4898 provides that an assignment, grant, or conveyance shall be void as against any subsequent purchaser or mortgagee for a valuable consideration without notice unless such instrument be recorded in the Patent Office within three months from the date thereof. In my opinion, this requirement operates unjustly in providing that an assignment, if recorded after three months from the date thereof, shall have no effect as constructive notice to a subsequent purchaser or mortgagee for a valuable consideration. This provision, in my judgment, should be modified so as to declare that while the assignment should be valid without recording for the period of three months from and after its date, thereafter it should be void against any subsequent purchaser or mortgagee for a valuable consideration without notice, unless it be recorded in the Patent Office prior to the date of such subsequent purchase or mortgage, so that should the assignee fail through forgetfulness or accident to file his instrument of assignment within three months he might still file it for record at a subsequent period, and it should then give constructive notice from the date of its actual filing.

### 5. *Money paid into the Treasury by mistake.*

Section 4935 provides for the payment of fees to the Commissioner of Patents, or to the Treasurer, or any of the Assistant Treasurers of the United States, or to any of the designated depositories, national banks, &c. All moneys received at the Patent Office from every source whatever are required to be paid into the Treasury as received, without any deduction for any purpose. Section 4936 provides that the Treasurer of the United States is authorized to pay back any sum or sums of money to any person who has through mistake paid the same into the Treasury or to any receiver or depository to the credit of the Treasury, as for fees accruing at the Patent Office, &c.

The Commissioner of Patents has the unquestioned

authority to correct a mistake occurring in his Office, and to refund to any individual who has paid money to the financial clerk through mistake or accident if such correction be made before the money has been covered into the Treasury or placed in a depository of the Treasury. Such corrections are occurring constantly by reason of mistakes in making change and from demands made on account of applications which either are not filed or are withdrawn on account of some impropriety or irregularity in their presentment; but when the money has been covered into the Treasury the Commissioner of Patents no longer has the power to correct such mistakes, and as it frequently occurs that the mistake is not discovered until after the money has been covered into the Treasury the party in interest is required to go through the somewhat tedious process of applying to the Treasury and furnishing proofs before he can obtain the correction of the mistake. Generally all evidence of the mistake is disclosed by the records of the Patent Office, and the Secretary of the Treasury is uniformly required to make examination and reference of the matter to this Office before acting on the application. The Patent Office is thus put to the same trouble of inquiry and examination as it would be were the whole matter in the hands of the Commissioner of Patents. The amounts involved are always small sums—either the first filing-fee of \$15 or the \$20 final fee, or some small sum involved in making change. I can see no reason why the Commissioner of Patents should not be authorized to make all corrections of mistakes of this character which occur in his Office and to refund the money, and I recommend that authority be given for that purpose.

#### 6. *The attorneys' fund.*

In this connection I desire to call attention to what may be regarded as equitable claims on behalf of a number of patent attorneys against the Patent Office resulting from a defalcation on the part of the late financial clerk, Mr. Levi Bacon. The claims grew out of the following facts and practice formerly prevailing in this Office: The statutes of the United States require that all payments to be made into the Patent Office for copies, records, or work to be done, shall be tendered in advance or simultaneously with the delivery of the copies, records, or work; but persons were constantly sending for such copies of records from remote parts of the country, not knowing what the cost would be, and the Office had been in the habit of responding to such requests with an estimated cost of the work. Thus the delivery of the copies or other work desired was considerably delayed. On the other hand, many parties were in the habit of remitting a larger sum of money than would be required, and directing the Office to furnish the copies of records immediately and return the change. There grew up in the Office, in consequence of the difficulties attending this method of transacting the business, the practice of extending a credit to patent attorneys in good standing and requiring them to remit the amount of their accounts once each month; but after some years' experience considerable sums of money were lost in consequence of the death, disappearance, or inability of the attorneys to pay. In 1878 Mr. Commissioner Spear issued

an order authorizing persons dealing with the Office to deposit with the financial clerk a special fund, to be drawn against as they saw proper. After the issuance of this order it was the practice of the financial clerk to receive the money thus deposited and place it in envelopes, upon the back of which was kept the account between the Office and the attorney. This fund was regarded as a private fund, at all times the property of the attorney, no part of which went into the public funds or into the Treasury except as it was drawn against, and the sum then so drawn was applied and paid over into the Treasury. The balance on hand was always regarded as the money of the individual, subject to his order and liable to be withdrawn at any time he might desire to have it returned. On the death of the financial clerk, Mr. Bacon, in June, 1887, it was found that the various balances which should have been in these envelopes were gone, and that no account could be given of this so-called "attorneys' fund," or "miscellaneous fund," as it was sometimes termed. At the same time it appeared that the Office had these various attorneys charged with copies, records, and other material furnished which should have been, and but for the defalcation would have been, paid for by the sums of money in the various envelopes to the credit of the parties in interest; but the money not being found, these accounts were regarded as just and valid claims against attorneys, and it was held that the fact that each at some previous time had had in the hands of the financial clerk sufficient money to provide for the payment of these accounts could not be regarded as liquidating the same. The Commissioner of Patents entertained the view that an officer of the Government could not incur a liability without the express provision of law, and that he had no authority to receive private deposits and make the Government liable for them, or to secure such deposits either by the money of the Government or by their equivalent in work, copies, &c. In his opinion the case was very much the same as though the attorneys had come to the financial clerk with a bill of large denomination, and, instead of tendering the exact sum which was due, intrusted him with the bill, allowing him to make change, and upon his failure to return the change should attempt to hold the Government liable for the difference. No doubt there were a number of these attorneys who deposited their money without much consideration. They find themselves now indebted in small sums of money to the Office, and they naturally insist that they understood they were dealing with the Government, and that the Government ought to indemnify them for their loss. These claims have certainly strong equitable features. The practice grew up out of the order of Commissioner Spear, the money deposited by the attorneys was always made payable to the Commissioner of Patents, and all the correspondence, receipts, &c., were conducted in the name of the Commissioner. In my judgment, Congress should authorize the Commissioner of Patents to adjust these claims, subject to the approval of the Secretary of the Interior, and to pay them by the recognition of orders for copies, records, assignments, &c. This would restore the parties to all their rights without the payment of any cash by simply supplying these

attorneys with what it was originally contemplated they should receive. The amount involved is about five thousand dollars.

It will not be improper in this connection to call attention to the fact that since the defalcation alluded to was discovered the Commissioner has taken careful steps to guard against any possible misappropriation of the public moneys. All money deposited by attorneys or others is now required to be at once transferred to the Treasury and placed beyond the control of the Patent Office. When this defalcation was disclosed, it was also ascertained that during the long period of Mr. Bacon's possession of the office, though millions of dollars had passed through his hands, there had never been a settlement of his accounts. The practice now prevails of requiring a quarterly and annual adjustment of the accounts of the financial clerk. In addition, an entirely new system of receiving and accounting for the funds received has been adopted, with checks and counter-checks, so that it is believed to be now practically impossible for any mistake or misappropriation to occur without being at once detected. The importance of the subject will be seen when the fact is considered that the daily receipts average about three thousand dollars.

#### 7. *Delay in prosecuting applications.*

I desire to call especial attention to the subject of the delays which occur in the Patent Office on the part of applicants in the prosecution of their applications for patents.

Section 4894 provides—

All applications for patents shall be completed and prepared for examination within two years after the filing of the application, and in default thereof, or upon failure of the applicant to prosecute the same within two years after any action therein, of which notice shall have been given to the applicant, they shall be regarded as abandoned by the parties thereto, unless it be shown to the satisfaction of the Commissioner of Patents that such delay was unavoidable.

Under this section applicants who desire to prolong their applications and postpone action therein have an ample opportunity to do so. There are two classes of persons who apply for patents—one composed of those who are exceedingly anxious to obtain their patents at the earliest practicable moment, the *other*, of those who desire to prolong the issue of their patents and to keep the application pending in the Patent Office to the very latest date possible. The second class embraces the more powerful, rich, and influential parties, who are either the inventors or the assignees of the inventors. This section of the statute enables the second class of persons to keep their applications pending in the Office for years before their patents issue. In the meantime they are engaged in manufacturing and putting upon the market the article or improvement, but warning the public that the patent is applied for, the effect of which is to give them the absolute control and monopoly of the invention and to deter all other inventors from entering upon the same field of invention and from manufacturing the article. The manner in which this delay is effected may be briefly explained: The applicant files his application and is allowed 2 years within which to complete or perfect it. Any action of the Office requiring change or modification or some formal correction can be followed under this section by a further delay of 2 years before the applicant is required to take any action in

response. At the expiration of the two years he perhaps makes some amendment or change in the character of his claims. This involves a corresponding action on the part of the Office, and however prompt and speedy this action may be the applicant is permitted another 2 years before any responsive action can be compelled from him. And so the matter may be continued. There are applications now in the Office which have been kept alive nine or ten years, and the Office is powerless to compel speedier or earlier action on the part of the applicants.

These repeated actions and these long-continued delays cannot fail to suggest that a great deal of useless and unnecessary labor and consumption of time in the Patent Office are involved. Every application stands in its proper place upon the calendar of the Office, and when reached in its order it must be examined carefully to see whether any action has been had since the last-recorded action of the Office, so that a case which has remained for 2 years without responsive action from the applicant may probably be examined twenty or thirty times simply to ascertain that nothing has been done. When it is considered that this labor is multiplied by the number of applications which are thus delayed, the amount of useless and unnecessary labor expended can be appreciated.

While calling attention to the fact that this 2 years' period in the case of original applications is too long, it will be a matter of surprise to know that in applications for reissues Congress has omitted to fix any period (except the duration of the original patent) within which they become abandoned for want of prosecution. A reissue application is always alive, and the applicant may file an amendment 10 years after it was required by the Office to be made and be entitled to have it considered and acted upon.

I earnestly recommend that section 4894 be so modified that there shall be vested in the Commissioner of Patents a discretion to declare any application forfeited for want of prosecution whenever he shall be satisfied that such order should be entered. This power is possessed by all tribunals who have the control of litigation and matters of this character. Of course the exercise of this power should be guarded by proper restrictions, so that injury or wrong cannot be done, and no order of this kind should be made by the Commissioner until ample notice had been given to the applicant to show cause why his application should not be declared forfeited. The power to reinstate a case after it had been declared abandoned should and would be preserved under section 4894 whenever, in case of death, insanity, or other good and sufficient cause, it should be made to appear to the satisfaction of the Commissioner that the want of prosecution was unavoidable, and that the party was incapable of showing cause why the case should not be declared abandoned.

#### 8. *Renewal application where case was forfeited for non-payment of final fee.*

Section 4885 provides that after the Office has passed and allowed an application and nothing remains but the payment of the final fee to complete the issuance of a patent, if the fee be not paid within the period of 6 months the patent shall be withheld. I have al-



ready called attention to the fact that very frequently the payment of this final fee is purposely omitted in order to permit the applicant to extend the period of his monopoly; but of course this is not always the case. The provision of section 4897, which enables a party who has failed to make such payment to file a renewed application within two years from the date of the allowance of the original application and obtain his patent, is a wise and just provision; but there is very much doubt and uncertainty as to the meaning of this section, in so far as it requires that "such second application must be made within two years after the allowance of the original application." It has been held by high authority that the effect of this provision is by construction to bar the *invention* as well as the *application* if the renewed application be not filed within 2 years. On the other hand, there is also high authority that such is not the effect, and that even if 2 years have elapsed after the allowance of the original application the new application may be made and may go to patent, notwithstanding the existence of the original application, its allowance, and its forfeiture for non-payment of the final fee. This section should be amended to remove this uncertainty. I am of the opinion that the limitation should be to the invention; and not only this, but that when an application for a patent has been allowed by the Office and the applicant has failed to pay the final fee within 6 months, and has also failed to renew the application within 2 years, the invention should be made public and become public property as of the date of the original allowance. I think this should be the result from a proper consideration of the relations between the Government and the inventor. The inventor has conceived and presented a new invention. He comes into the Office for the purpose of donating that invention to the public after he shall have first enjoyed its exclusive use for the period provided by law. The Office has made a careful and thorough examination, has discharged all its part of the contract, and extended to the applicant the right to take out his patent upon paying the charges required. The public from this moment is entitled to its part of the consideration of the contract, and ought not to be deprived of it upon the failure of the inventor to fulfill his. The invention has become so far public as to be made known to the Patent Office. The law extends to the applicant the full period of 2 years within which to avail himself of all his rights and to enjoy his property. Failing in this, he ought not to have it in his power to conceal the invention as a lost art and to deprive the public of it. On the other hand, other inventors may invent the same thing and come into the Office, and by patenting the invention deprive the public of what they have already acquired the right to by virtue of the allowance of the first application. In other words, when an invention has been made and disclosed to the Office, and the application has been passed to issue, that invention should be taken out of the field of patentability as to all future inventors, and ought not to be regarded as a concealed or abandoned invention. I therefore recommend the modification of the statute so as to provide that such second application must be filed within 2 years after the allowance of the original application, and if not

so filed the invention shall be regarded as abandoned to and as the property of the public.

#### 9. *Joint inventors.*

Under the present statutes a patent may issue to a sole inventor or joint inventors, to an inventor and his assignee of a part interest, or to the assignee or assignees of the entire interest. Every patent issued to a sole inventor or to an inventor and his assignee of an undivided part, or to the assignees of the whole interest, is beyond challenge so far as an improper union of persons as patentees is concerned—that is to say, the law authorizes the patent to issue to the inventor or to any person or persons to whom he desires that it shall issue, and this is the principle which underlies the statute authorizing the assignment, grant, or conveyance, either of the original invention before patent has been granted or of the patent after it is issued; but while there is no express provision of law declaring that a patent issued to joint inventors is void, should it appear that they were not joint inventors, yet that is the well-settled law as announced by the courts. The statute also requires that the assignees of the inventor shall be such by virtue of a written formal legal assignment; but in the case of a patent to joint inventors, when it turns out that by mistake or error of law one of them was not a joint inventor, but the sole inventor, the other does not become a patentee as an assignee under a formal legal assignment, although he does become one of the joint patentees with the full consent and wish of his co-patentee. Inasmuch as it is often one of the most perplexing and difficult questions coming before the Office or before the courts to determine whether an invention is actually a sole invention or a joint invention which two or more persons contributed, there seems no reason why a patent which is thus issued to persons who supposed themselves to be joint inventors should be invalid. Under all other systems within my knowledge the patent is allowed to issue in the name of those persons who demand it in whatever capacity or relation they may make the demand, and it is only requisite that one or more of the patentees shall have been the true inventor. I am aware of no reason why such should not be the law in the United States; and when there is taken into consideration the amount of time, labor, and trouble involved in investigating the question as to whether there was or was not an actual joint invention, and other incidental questions which are constantly arising, as well as the injustice to the patentees themselves of having their patents declared void, I find ample reason for recommending a provision of law expressly providing that patents shall not be held to be invalid by reason of the fact that the persons described as joint inventors were not joint inventors, provided that either one of them thus described was in fact the true and sole inventor.

#### 10. *Examination of applications.*

There is no occasion to refer at any length to the distinctions between the English patent system and the American. The principal and important difference consists in the examination given to an application filed in this Office to ascertain the novelty and utility of the alleged invention, the object being to secure to the inventor for a limited period the precise

subject-matter—no more and no less—of his invention, and also to protect the public against fraud and imposition which may be practiced in imposing upon them worthless and invalid patents, and in securing them against vexatious and oppressive litigation founded upon that class of patents. A patent issued under the American system gives to the inventor and the public an assurance as to its validity which cannot be secured under any other system. In the courts the patent constitutes the highest *prima facie* evidence. The Patent Office contains a vast collection of information on the state of the art which is inaccessible and unattainable elsewhere. Resort must be had to this establishment whether the examination be had before or after the patent is granted. The applicant secures this examination and the issuance of his patent for \$35. It is not required that he shall be represented by attorney, though in all complicated inventions, and especially valuable ones, prudence would suggest such representation.

Under the British system the English Patent Office is little more than a registration office. The patent when issued is but a certification, and is of no value as property. No one would invest in it until it should be submitted to learned and skilled experts, who, outside of the office, bear the same relation to the merits of inventions as the examiners of this Bureau sustain. Such examinations and opinions based upon them by English lawyers are far less safe and reliable and much more expensive to the inventor than the procedure in the United States Patent Office. When it is called to mind how easily associations and corporations can be formed to promote the introduction of patent property and to foist the same upon the public, and how easily legal opinions can be secured urging and supporting the validity of the patents involved in the scheme, the danger and disadvantages of the system become apparent, so that it is beneficial neither to the inventor nor to the public. The disadvantages are not so great to a compact people occupying a limited territory like England as to our own people. A patent granted in this country without examination would be practically valueless to the inventor. He could never introduce his invention or place it on the market. The opinion of eminent counsel at Washington would not be accepted in Chicago; that of New York attorneys would not avail in San Francisco. The inventor would need a fortune to begin with in order to secure the opinions or "examination" of counsel known and recognized in every district and locality before he could succeed in availing himself of the value of his patent. However, it is believed the system is too well established and too thoroughly understood and appreciated to be shaken by any objections that can be urged against it.

It may not be out of place to call attention to the practice in the Office relating to the subject of these examinations, for there appears to exist no little misapprehension relative to it. An impression prevails that the questions of utility and novelty of an invention are passed upon and finally determined by the various assistant examiners who make the preliminary search and examination. This is erroneous. There are 30 examining divisions in the Office, to each of which are assigned certain classes of invention and

art. Each division is presided over by a Principal Examiner, selected and retained in view of his long experience and supposed capacity. Under him are a certain number of assistant examiners, to whom he distributes the applications assigned to the division under his charge. These assistants make the examination and report the result to the chief. All actions affecting an application, whether of rejections, allowance, or the requirement for amendments, are submitted to the Principal Examiner for his supervision and approval, and whatever action is had is that of the head of the division. If he allows the application, it goes to patent. From his requirement for amendment, or other action relating to the form of the application, an appeal lies to the Commissioner in person, without fee. If he rejects the application, an appeal lies to the Board of Examiners-in-Chief—a board composed of three experienced persons—and they review the rejection. Should they affirm the decision of the examiner, an appeal lies to the Commissioner, and thence to the Supreme Court of the District of Columbia. Cases are argued in full before these appellate tribunals, whose action is not in any sense perfunctory. The records will show reversals by the appellate tribunals in the Office to occur with greater relative frequency than in the courts of law and equity.

It must be confessed that great power is lodged in the hands of the Principal Examiner. If he allows the patent, it issues without further question. It is certainly true, however, that the inventor, as a general rule, secures the benefit of this exercise of power. As already stated, ample provision is made for appeal if the rejected applicant feels aggrieved and believes his application has merits; but the unlimited power of the examiner is in the direction of allowing patents. If there should be any restriction, it should be in guarding against its improper or irregular use. This might be done by organizing a board of review, to revise and inspect the allowed applications, with the view of preventing the issuance of improper patents.

#### 11. Compensation of Examiners.

There is no doubt that the compensation allowed the corps of examiners is insufficient. Promotions are not rapid, and there is little temptation for examiners to remain in the service after mastering the practice and business of the Office. With this acquisition a bright active man can at once secure business or employment elsewhere which is much more remunerative. The members of the examining corps who have secured promotion, as a general rule, are men of education and high attainments, especially in the requisite knowledge of the sciences and the arts. In my judgment, the public interest, as well as justice to this class of employes, would be well subserved by increasing their salaries, so that they shall be commensurate with the character of their services and the responsibilities of their duties. Such an increase would tend to secure and retain men possessing high qualifications.

#### 12. Interference proceedings.

There is some reasonable ground for complaint against the present system of interferences as it exists and is conducted under the statutes and Rules of

Practice of the Patent Office. An interference necessarily occasions delay, for such a proceeding is not instituted until the question of patentability has been favorably determined. In the Patent Office, just as in the courts, poor and uninfluential suitors are frequently confronted by the powerful and rich. There are the same opportunities for procuring false evidence, corruption, and exercising other evil influences which exist in other departments and in the courts. Such conditions can hardly be said to be defects, however, in the American patent system. All that can be said is that there are 30 organized divisions in the Office composed of a body of assistant examiners and clerks presided over by a principal, and consequently in the examination, allowance, and rejection of applications, or in the declaration of interferences, there are more persons who may be approached and affected by such influences. But the requirement and necessity for the number of divisions depend upon our patent system. The vast number of applications that are presented and the labor and research involved in their examination make necessary the number. These conditions are essential, or else the system itself must be abandoned. Not only this, but so long as this system is retained there must exist as incidental to it some procedure of interference. When there are pending in the Office two applications for patents for the same invention, what must be done? The very purpose of an examination is to prevent two patents being granted for the same invention, or the issuance of a patent for that which is old in the arts. Not only this, but in the supposed case, if a patent issue to the applicant who first filed his application and is denied to the later one, absolute injustice may be done. The first may have pirated the invention from the other. So, also, if an applicant is confronted by a patent already issued, he may insist that he was the first original inventor, or that the patentee stole the invention. Without some reliable mode of determining the question the later applicant would be remediless. If a remedy were to be provided which would enable him to go into courts of equity and file a bill against the patentee, vacate the patent, and then renew his rejected application and obtain a patent, this would impose hardships as great as, if not greater than, those now endured. The rejected applicant might have to prosecute his bill in equity in Maine or California—the defendant's home—while, himself a poor man, he might have to contest with powerful corporations. In the meantime the invention is made public and an opportunity afforded for the patentee, as well as others, to make a case, and the chances for fraudulent evidence, antedating his invention, and defeating him, would be greatly increased.

In every interference there are necessarily two or more persons, each claiming to be the original inventor. Their claims may be false or fraudulent, but each is entitled to the same treatment and consideration until the facts are established. Each is in the sense of the law an "inventor," and entitled to equal consideration, even though one of them may have secured the aid of a corporation or powerful assignee. Precisely the same conditions would arise if the contest were in the courts. It is doubtful if any system can be devised that would be more friendly and bene-

ficial to poor inventors than the present. The truth is, the present system of declaring and conducting interferences, with all the objections to it and defects in it, is not the creation of any one mind, but it has been evolved from years of actual and practical experience. It is always the case in such matters that it is much easier to criticise and point out defects, selecting the rare and exceptional cases where the system has miscarried, and ignoring the infinite multitude of cases where it has succeeded, than to present a remedy or propose a better system.

It has been suggested by some who are eminent for their familiarity with procedure in the Office that instead of retaining the present interference system, which proceeds, as far as is possible, according to contested proceedings in the courts, upon pleadings and evidence, subject to cross examination, the *ex parte* procedure of the Patent Office be extended to this subject; that each applicant be required when he files his application to deposit with it his preliminary statement, under seal, not to be opened or inspected unless his application shall be put in interference; the form of the preliminary statement to be prescribed by the Office calling for a full and exact account of the applicant's conception of the invention, disclosure to others, names, places, dates, models, experiments, reduction to practice, &c. All such preliminary statements should be lodged with a single officer and kept unopened in the secret archives until called for in consequence of the declaration of an interference. Such proceedings when declared would go, as now; to be tried and determined by the Examiner of Interferences upon the preliminary statements filed by the parties, no preliminary statement to be amended except when the issue of the interference was so framed that the original statement was insufficient or not specific, when amended, to be so amended by answers to interrogatories propounded by the Examiner of Interferences and not otherwise. The decision of the Examiner of Interferences would be made without any hearing of parties, but reserving to them the right of appeal to the Board of Examiners in Chief and the Commissioner, and of full argument and hearing, and also reserving to the defeated party the right within a reasonable time to file a bill in equity in such United States court as might be indicated, to establish that he was the first, true, and original inventor, annul the patent issued by the Patent Office, and secure a decree adjudging him entitled to the patent. This suggestion is submitted, not recommended, as coming from persons of great experience. But here evidently while some of the defects of the present system might be obviated it would compel the serious contests to be carried into the courts and subject the inventor to all the expense, annoyance, vexatious delays, and anxieties that attend litigations in the courts.

### 13. Trade-Marks and interstate commerce.

After the decision of the Supreme Court of the United States in the Trade-Mark cases, (100 U. S., 82,) which held that the acts of Congress approved July 8, 1870, and August 14, 1876, were unconstitutional, and that Congress had no power to legislate upon the subject of Trade-Marks *per se*, the act of March 3, 1881, was enacted under the provisions of the Constitution



conferring upon Congress the power to regulate commerce. That power, it is conceded, extends to commerce with foreign nations, commerce with the Indian tribes, and interstate commerce; but for some cause not apparent in the enactment approved March 3, 1881, Congress saw proper to authorize the registration of only such Trade-Marks as were used in commerce with foreign nations or with the Indian tribes and left Trade-Marks which might be used in commerce between the States wholly unprovided for. If there be any reason why the latter class of Trade-Marks should be excluded from the protection of Federal legislation, or left to the regulations prescribed by the States, or wholly omitted, it is not apparent. The attention of Congress has been called to this subject by my predecessors, and I respectfully renew the suggestion that the provisions of that act be enlarged so as to cover Trade-Marks used in interstate commerce. This question has become more important in view of the union hereinbefore referred to for the protection of industrial property. Some additional legislation by Congress is necessary in view of the new situation resulting from this treaty. Article 6 of the Convention declares that "every trade or commercial mark deposited in the country of origin shall be admitted to deposit and so protected in all other countries of the Union." It is evident from this declaration that if the article were to be fully carried out in this country it would probably admit to registration Trade-Marks which otherwise would not be admissible under the existing laws of Congress. In other words, the provision is more liberal than the act of March 3, 1881. It is more liberal than was the common law, because under each there were limitations which excluded Trade-Marks, which were not regarded as lawful in some sense and which were calculated to mislead or were regarded as in contravention of religious ideas, morals, &c. The definition of a Trade-Mark is substantially the same in all commercial countries, but practice varies in the application of these definitions and in respect to the character of marks which may be protected. For instance, the usage in southern Europe in respect to the employment of sacred names and symbols warrants their adoption as Trade-Marks in relations which would be offensive and perhaps sacrilegious to much of the American sentiment. In a case where a representation of the Virgin Mary was claimed for soap this Office held that its use in such a connection was offensive to a great proportion of the people of the United States, and therefore that it was not entitled to protection; yet it is actually protected in France, where a different sentiment prevails. Instances of this kind are rare; but the statute should be framed to cover all cases likely to arise. If Congress, therefore, is inclined to make the law of Trade-Marks conform to the provision of the Convention, the act of March 3, 1881, should be amended so as to admit to registration any Trade-Mark already lawfully registered in any of the countries of the International Union, subject, of course, to the conditions which require preliminary examination as to prior use and employment in the class of commerce over which the legislation of Congress extends.

Another question in connection with Trade-Marks which will suggest appropriate legislation relates to

the coercive features of the provisions of the treaty intended to give Trade-Mark property a protection which would be unknown to the common law or to the statutes of this country. These provisions will be found in articles 9 and 10 of the Convention, and may be briefly stated to include seizure upon importation of any article of merchandise bearing an illicit Trade-Mark or a false or fraudulent intimation of origin. Of course, it is to be understood that the practical operation of such legislation would apply in this country to goods imported from abroad, and would authorize the seizure in this country of such goods. The act of August 14, 1876, provided for the seizure by United States marshals of all appliances used for counterfeiting or the fraudulent imitation of registered Trade-Marks. Section 2496 of the Revised Statutes, as amended March 3, 1883, refuses entry at the custom-house to foreign goods bearing simulations of the Trade-Marks of domestic manufactures. Those two acts contain all the protection afforded by the United States statutes to our citizens so far as coercive measures are concerned. Of course, the common law and statutes afford a simple remedy for infringement; but in view of the fact that as between the owner of a Trade-Mark in one country and the infringer of it in another the civil remedy is so expensive it practically constitutes no protection. Every country seems to have felt the necessity of employing coercive measures to prevent fraud of this character. No act of Congress has ever contemplated the seizure of merchandise bearing counterfeit or simulated Trade-Marks, and under the present laws the courts of Federal jurisdiction have no jurisdiction to enforce such seizures. Whether such legislation should be made is submitted to the consideration of Congress.

Under Article 6 of the Constitution of the United States this Convention is now a part of the supreme law of the land. The Government may withdraw from it when inclined to do so; but until such withdrawal its provisions must be recognized, and ought to be enforced by appropriate legislation empowering the proper officers to make the required seizures and determining the due proceedings in our courts which are necessary to enforce the provisions of the treaty and protect the rights of individuals. It is true that under the general provisions of this treaty, as set forth in article 2, there is only contemplated giving to the citizens and subjects of foreign States the same protection that our own citizens enjoy; but it is to be apprehended that while it is not expected the same procedure and method will be employed, yet the same ample protection will be afforded to citizens of foreign countries which would be demanded for our own citizens.

#### 14. *Restriction of some of the evils of the patent system.*

The growth and development of the patent system of the United States, and of inventive genius stimulated by the rewards and prospects of rewards growing out of that system, are the subjects of constant comment and public consideration. That this system has been useful and beneficial is beyond question; but it is impossible that it should not be accompanied by greater or less evils. The attention of the public has been for

years constantly called to the fact that the inventor himself rarely secures the real reward of his invention. This undoubtedly proceeds from the fact that quite as much genius is required to develop a property or manufacture and place it advantageously upon the market in so great a country as this, and to make it remunerative, as is required to make the invention, and it is the misfortune of inventors, as a general rule, not to be possessed of business habits and business faculties. The result has been that nearly all the great and most useful inventions of modern times have fallen into the hands of men of capital or corporations, who alone have the means to bring them before the public, develop their useful qualities, and enable the people directly to see that they are useful and can be produced at prices which remunerate. This condition of things cannot be remedied, and perhaps ought not to be. There should be no legislation which interferes with the right of property which is vested in the inventor from the moment he has created a new subject of invention. The entire system and theory of patent property rest upon the idea that that which a man invents, in the sense of its being a new and novel creation, is his individual property, which he owns by the right of creation and discovery. It is not the theory of the patent law that when the Government grants a patent to an inventor it confers upon him any such property as it does in the case of a patent for land, which, belonging to the Government at one moment, becomes the property of the patentee upon the execution of the instrument. But the patent in the former case recognizes the existence of the property in the individual; but in consequence of its intangible and incorporeal nature it is incapable of protection from invasion by other persons, unless some distinct and specific remedy is afforded the inventor against such invasion and infringement. Letters Patent are mere evidence of the fact that, in the opinion of the Government, the patentee has invented a new, useful, and original invention, and the Government undertakes to protect him in the exclusive enjoyment of that property for a definite term. Now, any legislation which departs from this theory and proceeds upon the idea that the patentee should not be entitled to full protection is a mistake. Many suggestions have been made as to the best method of protecting the inventor and enabling him to realize as far as possible the value of his invention, and at the same time protecting the public against vast and powerful corporations in patent property exacting greater values than can be justified upon any fair or reasonable consideration, and which by buying in all the succeeding improvements in a certain line of invention are enabled for generations to perpetuate a monopoly which ought to have more reasonable limits. It must be understood that a monopoly which erects and locates itself all over the country in every business center under the provisions of a patent is able in nearly all cases to prolong its life after the patent expires by reason of the possession which it has taken of the market. New manufactures are unable for years after the expiration of the patent to come into the market and compete with an organization which thus has such complete possession of the field of manufacture.

It has been recommended that some legislation

should be had looking toward the restriction of the extension of patents and patented property. In this direction I suggest for the consideration of Congress the propriety of providing that all patents hereafter issuing shall contain a condition that they may be extinguished by the Government at any time upon the payment to the owners of the property, whether the patentee or his assigns, of a reasonable sum of money, such sum to be determined by arbitration or otherwise, as may seem appropriate to Congress. It is probably safe and accurate to say that patent property as a rule is not as valuable as is popularly estimated. The profits which are enjoyed by the owners of property of this character are rather the result of having control of the market and being everywhere firmly established in the business of manufacturing the patented article. It is well known that the licensees under patents make enormous profits in the manufacture of such articles as the barb-wire, after having paid the royalty to the patentee, and it is probably true of all the great concerns engaged in manufacturing patented articles that they would still be able to conduct a large and profitable business were the patent to be extinguished. In view of the fact already suggested that in rare instances only do the original patentees obtain any adequate remuneration for their inventions, it seems entirely proper that the Government at any time should have the power in its discretion to extinguish the patent by paying such sum as would be a reasonable consideration for the appropriation of private property for public purposes. Of course, but few inventions would be extinguished in this way, as their importance generally is not such as to justify interference by the Government.

#### 15. *Abridgment of patents.*

I desire to call the attention of Congress to the necessity of making provision for the compilation and publication of a classified abridgment of patents. The necessity for this publication has been earnestly set forth in the annual reports of this office since 1848, when Mr. Commissioner Ewbank first called the attention of Congress to the subject. Year by year the need and demand for such a work are more and more forcibly felt. Each field of invention broadens, and the necessary examination to determine the utility, novelty, and usefulness of the invention presented becomes more intricate and difficult. No better illustration need to be cited to show that such an abridgment is almost indispensable than the publication of patents relating to electricity. Copies of all patents on this subject from the year 1790 to July, 1880, were compiled and bound for the Electrical Congress, held at Paris in 1880. This publication has since been continued. It is doubtful whether the work of the Office could keep pace with the vast number of applications which have been filed since the impetus given to inventive genius by the electric light and telephone, were it not for these volumes, whereby examinations are facilitated and accuracy secured. In 1881 Congress appropriated \$10,000 to begin this work. Fourteen thousand patents relating to agricultural implements were abridged and the briefs made ready for publication. The appropriation, however, was not continued, and the material was boxed and stored

away. An appropriation of not less than \$20,000 will be required to continue the work of abridging patents and to publish the material already prepared. The ready sale to manufacturers and inventors of such an abridgment would speedily reimburse the Government for all moneys expended in compiling and publishing such a work, and it is believed that the revenues resulting from such sales would largely increase the receipts of the Office.

#### 16. *Exchange of publications.*

Some provision should be made by Congress by which this Office can be furnished for publication in the OFFICIAL GAZETTE with certified copies of all decrees, decisions, and judgments made by the Federal courts in patent cases. I recommend that authority be conferred upon the Commissioner of Patents to furnish the OFFICIAL GAZETTE to the clerk of any Federal court, or to the library belonging to the court, in exchange for the decisions rendered by such Federal court.

I further recommend that the Commissioner be invested with authority to exchange the OFFICIAL GAZETTE for any publication of a scientific or useful character published in this or any foreign country, which, in his judgment, would be desirable and valuable to the scientific library of the Patent Office.

#### 17. *Charge for certified copies.*

I recommend that paragraph 12 of section 4934 of the Revised Statutes be amended so as to read:

For certified copies of patents and other papers when written copies are required, 10 cents per 100 words; but when certified printed copies of patents are required, 25 cents for the printed copy and 25 cents for the certificate thereof.

The Office now sells a printed copy of a patent at the rate of 25 cents for one copy and 10 cents each, if twenty or more are purchased at one time. There does not appear any reason why the addition of a certificate should increase the expense to the patrons of the Office, except so far as the cost of the certificate increased it.

#### BUSINESS OF THE PATENT OFFICE.

The following statements exhibit in detail the business received and transacted by the Office during the last calendar year:

##### RECEIPTS.

*Detailed statement of all moneys received for patents, for copies of records or drawings, or from any source whatever.\**

Applications:	
Cash received.....	\$962,026 13
Cash refunded.....	5,068 80
Net cash.....	956,957 33
Certificates of deposit.....	41,239 00
Total cash and certificates.....	1,001,196 33
Copies:	
Cash received.....	81,112 62
Cash refunded.....	2,190 18
Net cash.....	78,922 44
Certificates of deposit.....	366 40
Total cash and certificates.....	79,318 84

\*A large number of copies of patents are furnished to co-ordinate branches of the Government for which no charge is made. The receipts would be considerably increased if the Office received payment for these copies.

Recording assignments:	
Cash received.....	20,729 28
Cash refunded.....	1,518 06
Net cash.....	19,211 22
Certificates of deposit.....	271 00
Total cash and certificates.....	19,482 22
Subscription to Official Gazette:	
Cash received.....	15,577 23
Cash refunded.....	96 72
Net cash.....	15,480 51
Certificates of deposit.....	153 70
Total cash and certificates.....	15,634 21
Registration of labels:	
Cash received.....	4,392 00
Cash refunded.....	1,591 50
Net cash.....	2,800 50
Certificates of deposit.....	84 00
Total cash and certificates.....	2,884 50
<i>Aggregates.</i>	
Cash received.....	\$1,083,867 26
Cash refunded.....	10,465 26
Net cash.....	1,073,402 00
Certificates of deposit.....	45,114 10
Total cash and certificates.....	1,118,516 10

##### EXPENDITURES.

*Amount expended by this Office under the several appropriations from January 1, 1888, to December 31, 1888.*

Salaries.....	\$635,309 28
Official Gazette.....	42,271 20
Photolithographing.....	72,856 59
Scientific library.....	2,336 53
Transportation of publications to foreign governments.....	380 80
Total.....	753,154 50

*Approximate amount expended by the Department of the Interior on account of this Office from January 1, 1888, to December 31, 1888.\**

Stationery.....	\$8,872 44
Postage on foreign matter.....	1,049 00
Printing and binding.....	185,921 21
Watch force.....	16,690 00
Furniture.....	2,139 84
Carpets.....	510 69
Ice.....	536 67
Telephones.....	468 00
Washing towels.....	142 71
Sundries.....	3,623 72
Total.....	219,954 28
Aggregate amount of expenditures.....	973,108 78

##### RECEIPTS OVER EXPENDITURES.

Total receipts.....	\$1,118,516 10
Total expenditures.....	973,108 78

Receipts over expenditures..... 145,407 32

*Statement of balance in the Treasury of the United States on account of the Patent fund.*

Amount to the credit of the fund January 1, 1888..	\$3,257,490 91
Amount of receipts during the year 1888.....	1,118,516 10

Total.....	4,376,007 01
Deduct expenditures for the year 1888.....	973,108 78

Balance January 1, 1889..... 3,402,898 23

\*A literal compliance with the provisions of the statute requiring "a detailed statement of all expenditures for contingent and miscellaneous expenses" is not possible, for the reason that the contingent fund for the several bureaus of this Department was consolidated by the act of March 3, 1883, and hence no part of that fund is disbursed by the Patent Office, and I am furnished only with an approximate sum, expended on behalf of the Patent Office.

## SUMMARY OF THE BUSINESS OF THE PATENT OFFICE.

Number of applications for patents for inventions.....	34,713
Number of applications for patents for designs.....	971
Number of applications for reissues of patents.....	113
<b>Total number of applications relating to patents..</b>	<b>35,797</b>
Number of caveats filed.....	2,251
Number of applications for registration of trade-marks.....	1,314
Number of applications for registration of labels.....	729
Number of disclaimers filed.....	8
Number of appeals on the merits.....	1,252
<b>Total.....</b>	<b>5,554</b>
<b>Total number of applications requiring investigation and action.....</b>	<b>41,351</b>
Number of patents issued, including designs.....	20,430
Number of patents reissued.....	86
Number of trade-marks registered.....	1,059
Number of labels registered.....	327
<b>Total.....</b>	<b>21,802</b>
Number of patents expired during the year.....	11,687
Number of patents withheld for non-payment of final fee.....	2,881

## PATENTS ISSUED.

*Patents issued to citizens of the United States, with the ratio of population to each patent granted.*

States and Territories.	Patents and designs.	One to every—
Alabama.....	61	19,726
Arizona Territory.....	10	4,044
Arkansas.....	69	11,630
California.....	445	1,943
Colorado.....	153	1,270
Connecticut.....	759	820
Dakota Territory.....	89	1,518
Delaware.....	33	4,442
District of Columbia.....	214	830
Florida.....	39	6,910
Georgia.....	122	12,640
Idaho Territory.....	12	2,717
Illinois.....	1,661	1,853
Indian Territory.....	5	.....
Indiana.....	494	4,001
Iowa.....	368	4,414
Kansas.....	330	3,018
Kentucky.....	218	7,562
Louisiana.....	98	9,591
Maine.....	152	4,269
Maryland.....	243	3,303
Massachusetts.....	1,887	944
Michigan.....	693	2,362
Minnesota.....	277	2,818
Mississippi.....	48	23,574
Missouri.....	647	3,351
Montana Territory.....	31	1,263
Nebraska.....	137	3,302
Nevada.....	17	3,662
New Hampshire.....	141	2,460
New Jersey.....	863	1,310
New Mexico Territory.....	23	5,198
New York.....	3,634	1,398
North Carolina.....	53	25,450
Ohio.....	1,353	2,363
Oregon.....	66	2,648
Pennsylvania.....	1,990	2,152
Rhode Island.....	209	1,323
South Carolina.....	42	23,704
Tennessee.....	131	11,773
Texas.....	239	6,660
Utah Territory.....	21	6,855
Vermont.....	89	3,733
Virginia.....	97	15,593
Washington Territory.....	26	2,889
West Virginia.....	62	9,975
Wisconsin.....	461	2,853
Wyoming Territory.....	6	3,464
United States Army.....	9	.....
United States Navy.....	12	.....
<b>Total.....</b>	<b>18,884</b>	.....

## Patents issued to citizens of foreign countries.

Austria-Hungary.....	30
Belgium.....	20
Brazil.....	1
Canada.....	281
Canary Islands.....	1
Central America.....	3
China.....	1
Colombia, United States of.....	2
Cuba.....	5
Denmark.....	8
England.....	523
France.....	131
Germany.....	355
Hawaii.....	2
Ireland.....	12
Italy.....	4
Mexico.....	7
Netherlands.....	4
Newfoundland.....	1
New South Wales.....	6
New Zealand.....	5
Norway.....	6
Queensland.....	1
Russia.....	18
Scotland.....	33
South Australia.....	4
Spain.....	2
Sweden.....	13
Switzerland.....	44
Turkey.....	1
Victoria.....	11
Wales.....	1
<b>Total.....</b>	<b>1,536</b>

## Comparative statement of the business of the Office from 1837 to 1888, inclusive.

Year.	Applications.	Caveats filed.	Patents and reissues.	Cash received.	Cash expended.	Surplus.
1837.....	.....	.....	436	\$29,289 08	\$33,506 98	.....
1838.....	.....	.....	520	42,123 54	37,403 10	\$4,721 44
1839.....	.....	.....	325	37,260 00	34,543 51	2,716 49
1840.....	735	228	473	38,056 51	39,030 67	.....
1841.....	847	312	495	40,413 01	52,666 87	.....
1842.....	761	391	517	36,505 68	31,241 48	5,264 20
1843.....	819	315	510	35,315 81	30,776 96	4,538 85
1844.....	1,045	380	495	42,509 26	36,244 73	6,264 53
1845.....	1,246	452	504	51,076 14	39,395 65	11,680 49
1846.....	1,272	448	638	50,264 16	46,158 71	4,105 45
1847.....	1,531	553	569	63,111 19	41,878 35	21,232 84
1848.....	1,628	607	652	67,576 69	58,905 84	8,670 85
1849.....	1,955	595	1,068	80,752 98	77,716 44	3,036 54
1850.....	2,193	602	993	86,927 05	80,100 95	6,826 10
1851.....	2,258	760	872	95,738 61	86,916 93	8,821 68
1852.....	2,639	996	1,019	112,656 34	95,916 91	16,739 43
1853.....	2,673	901	961	121,527 45	132,869 83	.....
1854.....	3,328	868	1,844	163,789 84	167,146 32	.....
1855.....	4,435	906	2,012	216,459 35	179,540 33	36,919 02
1856.....	4,960	1,024	2,506	192,588 02	199,931 02	.....
1857.....	4,771	1,010	2,896	196,132 01	211,582 09	.....
1858.....	5,364	934	3,695	203,716 16	193,193 74	10,522 42
1859.....	6,225	1,097	4,504	245,942 15	210,278 41	35,663 74
1860.....	7,653	1,084	4,778	250,352 59	252,820 80	3,531 79
1861.....	4,643	700	3,329	137,354 44	221,491 91	.....
1862.....	5,038	824	3,532	215,754 99	182,810 39	32,944 60
1863.....	6,014	787	4,184	195,593 29	189,414 14	6,179 15
1864.....	6,932	1,063	5,025	340,919 78	229,868 00	11,051 98
1865.....	10,664	1,937	6,616	348,791 84	274,199 34	74,592 50
1866.....	15,269	2,723	9,458	495,665 38	361,724 28	133,941 10
1867.....	21,276	3,597	13,026	646,581 92	639,263 32	7,318 60
1868.....	20,420	3,705	13,110	681,565 86	628,679 77	52,886 09
1869.....	19,271	3,624	13,997	693,145 81	486,430 78	206,715 03
1870.....	19,171	3,273	13,333	669,456 76	557,149 19	112,307 57
1871.....	19,472	3,366	13,056	678,716 46	560,595 08	118,121 38
1872.....	18,246	3,090	13,613	699,726 39	665,591 36	34,135 03
1873.....	20,414	3,248	12,864	703,191 77	691,178 98	12,012 79
1874.....	21,602	3,181	13,599	738,278 17	679,288 41	58,989 76
1875.....	21,638	3,094	14,837	743,453 36	721,657 71	21,795 65
1876.....	21,425	2,697	15,595	757,987 65	652,542 60	105,445 05
1877.....	20,308	2,809	14,187	732,312 85	613,152 62	119,190 23
1878.....	20,260	2,755	13,444	725,375 55	593,082 89	132,292 66
1879.....	20,059	2,620	13,213	703,931 47	529,938 97	174,292 50
1880.....	23,012	2,490	13,947	749,685 32	538,865 17	210,820 15
1881.....	26,059	2,406	16,584	853,665 89	605,173 28	248,492 61
1882.....	31,522	2,553	19,267	1,009,219 45	683,867 67	325,351 78
1883.....	35,577	2,741	22,383	1,146,240 00	675,234 86	471,005 14
1884.....	35,600	2,582	20,413	1,075,798 80	970,579 76	105,219 04
1885.....	35,717	2,552	24,223	1,188,098 15	1,024,378 85	163,719 30
1886.....	35,968	2,513	22,508	1,154,551 40	992,503 40	162,047 95
1887.....	35,613	2,622	21,477	1,144,509 60	994,472 22	150,037 38
1888.....	35,797	2,251	20,420	1,118,576 10	973,108 78	145,467 32

*Statement showing the number of the first patent, Design patent, and reissued patent, and the number of the first certificate of registration of a Trade-Mark and a Label issued in each calendar year since July 28, 1836, when the present series of numbers of Letters Patent commenced, together with the total number of each issued during the year.*

[The number of patents granted prior to the commencement of this series of numbering (July 28, 1836) was 9,957.]

Year.	Number of first patent and certificate issued in each calendar year.					Number of patents and certificates of registration issued during each calendar year.						
	Patents.	Designs.	Reissues.	Trade-Marks.	Labels.	Patents.	Designs.	Reissues.	Total patents.	Trade-Marks.	Labels.	Total certificates.
1836 (July 28) . . . . .	1					109						
1837 . . . . .	110					436						
1838 . . . . .	516					515		6				
1839 . . . . .	1,061		1			404		13				
1840 . . . . .	1,465		7			458		10				
1841 . . . . .	1,923		20			490		6				
1842 . . . . .	2,413		30			488		13				
1843 . . . . .	2,901		36			491		14	519			
1844 . . . . .	3,395	1	49			477	12	7	496			
1845 . . . . .	3,872	15	60			476	17	11	504			
1846 . . . . .	4,348	27	67			566	59	13	638			
1847 . . . . .	4,914	44	78			495	60	14	569			
1848 . . . . .	5,409	103	91			583	46	23	652			
1849 . . . . .	5,992	163	105			989	49	30	1,068			
1850 . . . . .	6,981	209	128			884	83	26	993			
1851 . . . . .	7,865	258	158			757	90	25	872			
1852 . . . . .	8,632	341	184			890	109	20	1,019			
1853 . . . . .	9,512	431	209			846	86	29	961			
1854 . . . . .	10,358	540	229			1,759	57	28	1,844			
1855 . . . . .	12,117	626	253			1,891	70	51	2,012			
1856 . . . . .	14,008	683	286			2,316	107	83	2,506			
1857 . . . . .	16,321	753	337			2,686	113	97	2,896			
1858 . . . . .	19,010	860	420			3,467	142	126	3,695			
1859 . . . . .	22,477	973	517			4,165	168	231	4,504			
1860 . . . . .	26,642	1,075	613			4,363	183	232	4,778			
1861 . . . . .	31,005	1,183	874			3,040	142	147	3,329			
1862 . . . . .	34,045	1,366	1,106			3,221	195	116	3,532			
1863 . . . . .	37,266	1,503	1,253			3,781	176	227	4,184			
1864 . . . . .	41,047	1,703	1,369			4,638	199	248	5,025			
1865 . . . . .	45,685	1,879	1,596			6,099	221	296	6,616			
1866 . . . . .	51,784	2,018	1,844			8,874	294	290	9,458			
1867 . . . . .	60,658	2,239	2,140			12,301	325	400	13,026			
1868 . . . . .	72,959	2,533	2,430			12,544	446	420	13,410			
1869 . . . . .	85,593	2,858	2,830			12,957	506	534	13,997			
1870 . . . . .	98,460	3,304	3,250			12,157	737	439	13,333			
1871 . . . . .	110,617	3,810	3,784		1	11,687	905	464	13,056	121		121
1872 . . . . .	122,304	4,547	4,223		122	12,300	884	529	13,613	486		486
1873 . . . . .	134,504	5,442	4,687		608	11,616	747	501	12,864	491		491
1874 . . . . .	146,120	6,336	5,216		1,099	12,220	843	501	13,590	492		492
1875 . . . . .	158,350	7,083	5,717		1,591	13,291	915	631	14,837	550	232	791
1876 . . . . .	171,641	7,969	6,200		2,150	14,172	803	621	15,595	1,138	232	1,370
1877 . . . . .	185,813	8,884	6,831		2,388	12,920	699	563	14,187	1,455	392	1,608
1878 . . . . .	198,733	9,686	7,452		2,427	12,345	590	500	13,441	1,216	392	1,947
1879 . . . . .	211,078	10,385	8,920		2,563	12,133	592	488	13,213	1,455	492	1,947
1880 . . . . .	223,211	10,975	8,529		2,618	12,926	515	506	13,947	1,872	355	2,227
1881 . . . . .	236,137	11,567	9,017		2,790	15,548	565	471	16,584	2,003	340	2,343
1882 . . . . .	251,685	12,082	9,523		2,939	18,133	661	471	19,267	2,202	304	2,506
1883 . . . . .	269,820	12,647	9,994		3,073	21,196	767	471	22,434	2,581	304	2,885
1884 . . . . .	291,016	13,508	10,265		3,285	19,147	1,030	565	20,413	2,883	902	3,085
1885 . . . . .	310,463	14,528	10,492		3,791	23,321	1,150	593	25,064	1,021	513	3,534
1886 . . . . .	333,494	15,678	10,548		4,304	21,797	773	129	24,299	1,067	391	3,558
1887 . . . . .	355,291	16,451	10,677		4,695	20,429	949	99	21,477	1,029	378	3,107
1888 . . . . .	375,720	17,046	10,793		5,073	19,585	835	86	20,506	1,133	380	3,513
1889 . . . . .	395,305	17,935	10,892		5,453					1,059	327	1,386
		18,830	10,978		5,780							

Herewith accompanying this report are lists or indexes, arranged in yearly form, of all patents granted during the calendar year 1888, properly classified under subjects of invention, and alphabetical lists of all

patentees, with their places of residence. No patents were extended during the year.

Very respectfully, your obedient servant,

BENTON J. HALL, *Commissioner*



# ALPHABETICAL LIST

## OF

# PATENTEES FOR THE YEAR 1888.

[Patentees of Designs Trade-Marks, and Labels, and parties who have filed Disclaimers follow this in separate indexes, but precede the Alphabetical List of Inventions.]

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Specification.	Drawing.	Volume.	Page.
Ab-Intra Boot Making Process Company. (See Lion and Cutlan, assignors.)						
Abair, Charlotte. (See O'Day, Charlotte, assignor.)						
Abbot, Arthur V., Closter, N. J., and F. C. F. Knaak, assignors, by mesne assignments, to National Heating Company, New York, N. Y. Central-station heating system	385,399	July 3	91	25, 26	44	19
Abbott, Allen I. (See Vanover, Joseph M., assignor.)						
Abbott, Arthur V., Brooklyn, N. Y., assignor to E. & T. Fairbanks & Company, St. Johns-bury, Vt. Testing-machine	383,385	May 22	240	{ 595 596 597 }	43	969
Abbott, Arthur V., Closter, N. J., and F. C. F. Knaak, assignors, by mesne assignments, to National Heating Company, New York, N. Y. Central-station heating system	387,201	Aug. 7	1	1	41	573
Abbott Buggy Company (See Raymond, Silas H., assignor.)						
Abbott, Essex S., assignor to Bradford Manufacturing Company, Boston, Mass. Sole-machine	383,266	May 22	2078	{ 545 546 }	43	939
Abbott, John D., Reading, assignor of one-half to J. A. Armstrong, Ludington, Mich. Wrench	383,334	May 22	2164	572	43	955
Abbott, Jonathan P., Cleveland, Ohio. Eaves-trough hanger	377,366	Feb. 7	1	1	42	495
Abbott, Joseph, Rumney, N. H. Fire-escape	376,622	Jan. 17	1287	339	42	261
Abbott, Levi, Arlington, assignor of one-half to T. Dolby, Watertown, Mass. Lock-binge.	393,200	Nov. 20	1492	390	45	839
Abbott Manufacturing Company. (See Adriance, Benjamin, assignor.)						
Abbott, Nathan B. (See Short, Sidney H., assignor.)						
Abbott, Richard C., East Bluehill, Me. Convertible ice-creeper and skate	377,131	Jan. 31	2044	535	42	421
Abbott, Theodore. (See Wright and Abbott.)						
Abbott, William. (See Wright and Abbott.)						
Abeel, John H., Jr., New York, N. Y. Anti-friction runner for sliding seats	390,740	Oct. 9	755	198	45	157
Abel, William H., deceased, Laconia, N. H.; G. A. Emerson, administrator. Latch-needle and covering or transferring point for knitting-machines	382,675	May 8	1211	314	43	752
Abeles, Julius D., et al. (See Friede, Samuel M., assignor.)						
Abedroth & Root Manufacturing Company. (See Rice, Harvey D., assignor.)						
Abedroth & Root Manufacturing Company. (See Worthington, Amasa, assignor.)						
Aber, Edgar, Troup, Tex. Apparatus for handling brick	375,911	Jan. 3	241	66	42	51
Abercrombie, Alexander V., Bridgeport, Conn. Library-check system	393,806	Dec. 4	101	28	45	1092
Abercrombie, J. J., et al. (See Bennett, Calvin H., assignor.)						
Abernetby, William. (See Dyer, Philip, assignor.)						
Abraham, John H., and E. K. Martin, Lancaster, Pa. Cigar-bunching machine	394,901	Dec. 18	1816	{ 470 471 }	45	1441
Abraham, John H., and E. K. Martin, assignors to Conestoga Cigar Company, Lancaster, Pa. Cigar-bunching machine	384,667	June 19	1237	326	43	1372
Abrahams, Isaac B., New York, N. Y. Manufacture of wall-covering	377,283	Jan. 31	2259	597	42	463
Abrahams, John W., assignor to J. Davis, Allegheny, Pa. Water-conductor	381,664	Apr. 24	2048	536	43	434
Abrams, Annie. (See Green, Albert, assignor.)						
Acheson, Charles S., Philadelphia, Pa. Ice-creeper for horses	382,171	Aug. 21	1517	404	44	877
Acheson, Edward G., Pittsburg, Pa. Electric conductor	380,157	Mar. 27	1931	515	42	1360
Acheson, Edward G., Pittsburg, Pa. Device for protecting electric conductors	390,196	Oct. 2	1	1	45	3
Acheson, Edward G., and B. F. Anderson, Pittsburg, Pa. Manufacture of electric conductors	380,158	Mar. 27	1932	515	42	1360
Ackerman, Emma M., Quincy, assignor of one-half to W. M. Colby, Cambridge, Mass. Sewing-machine	387,479	Aug. 7	410	108	41	653
Ackerman, Percy S. S. (See Ryfenburgh, Lewis M., assignor.)						
Ackland, Charles. (See Spiro, Naphthali, assignor.)						
Acme Hay Harvester Company. (See Alden, Horace A., assignor.)						
Acme Heel Trimmer Company. (See Ethridge, Frank N., assignor.)						
Acme Koll Paper Company. (See Bakewell, Paul, assignor.)						
Acme Staple and Machine Company. (See Buckley, Edward H., assignor.)						
Acme Staple and Machine Company. (See Cunningham, Horace E., assignor.)						
Action-Gesellschaft für Chemische Industrie. (See Kolbe, Werner, assignor.)						
Acton, John H. (See Lee and Acton.)						
Acuff, Noah A., Hall's Cross Roads, Tenn. Machine for pointing pickets, shingles, or similar articles	393,875	Dec. 4	213	57	45	1112
Adamant Manufacturing Company. (See Straub, Carl, assignor.)						
Adams, Albert W. (See Evans and Adams.)						
Adams, Cassilly, Cincinnati, Ohio. Divisible bullet-proof shield	377,732	Feb. 14	577	149	42	619
Adams, Charles F. (See Martin, Morris, assignor.)						
Adams, Charles H., Freeland, Mich. Seal-lock	393,876	Dec. 4	214	57	45	1112



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Adams, Charles W., Chelsea, assignor of three-fourths to A. B. Browne and E. Harding, Cambridge, Mass. Electric-arc lamp.....	380,271	Mar. 27	2082	557	42	1391
Adams, David S., Toronto, Ontario, Canada. Door-gong.....	379,626	Mar. 20	1127	298	42	1193
Adams, Dean, <i>et al.</i> (See Wherry and Rottaken, assignors.)						
Adams, Fitch D., Boston, Mass. Car-axle box.....	377,418	Feb. 7	113	23	42	516
Adams, Frederick. (See Walker, Alfred, assignor.)						
Adams, George B., assignor to Adams Manufacturing Company, Newark, N. J. Cuff-button.	376,500	Jan. 17	1099	288	42	226
Adams, George E., Providence, R. I. Folding gate for cars.....	389,867	Sept. 25	1635	433	44	1405
Adams, Gideon S., Camden, N. J. Boat propelling and steering apparatus.....	391,770	Oct. 30	2211	599	45	465
Adams, Henry A., Sandwich, Ill. Corn-sheller.....	386,371	July 17	1520	403	44	311
Adams, Henry A., Sandwich, Ill. Corn-sheller.....	390,831	Oct. 9	884	235	45	181
Adams, James W., Chicago, Ill. Elevated street-railway system.....	382,347	May 8	707	178	43	653
Adams, John, Clay Centre, Kans. Combined latch and lock.....	377,733	Feb. 14	578	149	42	619
Adams, John J. (See Adams, John W. and J. J.)						
Adams, John P., Cambridge, Mass. Water-closet-supply apparatus.....	382,128	May 1	371	96, 97	43	581
Adams, John S., Indianapolis, Ind., assignor to Jenney Electric Company, of Indiana. Electrical switch.....	391,351	Oct. 16	1640	434	45	329
Adams, John S., and A. W. Morrell, Indianapolis, Ind., assignors to Jenney Electric Company, of Indiana. Electric-lamp socket.....	385,436	July 3	155	42	44	32
Adams, John U. (See Adams, Joseph, assignor.)						
Adams, John U., New Orleans, La. Button.....	389,042	Sept. 4	343	90	44	1137
Adams, John W. and J. J., Charlotte, N. C. Water-elevator.....	389,681	Sept. 18	1350	354	44	1341
Adams, Joseph, assignor of one-half to J. U. Adams, New Orleans, La. Egg safety shipping-package.....	379,526	Mar. 13	966	261	42	1156
Adams, Louis, Terre Haute, Ind. Balanced slide-valve.....	378,751	Feb. 28	2088	550	42	926
Adams Manufacturing Company. (See Adams, George B., assignor.)						
Adams, Milton F., assignor to Rapid Service Store Railway Company, New York, N. Y. Carrier for store-service apparatus.....	378,537	Feb. 28	1786	471	42	869
Adams, Orsemas T. X., assignor to M. Peck, Chicago, Ill. Slag-furnace.....	379,436	Mar. 13	829	224	42	1130
Adams, Orsemas T. X., assignor to M. Peck, Chicago, Ill. Slag-furnace.....	379,527	Mar. 13	967	261	42	1156
Adams, Orsemas T. X., assignor to M. Peck, Chicago, Ill. Slag-furnace.....	379,823	Mar. 20	1533	404	42	1273
Adams, Oscar A. (See Richer and Adams.)						
Adams, Peter. (See Condon, Shepard, and Adams.)						
Adams, Peter, <i>et al.</i> (See Pickles, James D., assignor.)						
Adams, Phineas H., Jr., Chicago, Ill. Slag-furnace.....	379,437	Mar. 13	830	224	42	1130
Adams, Phineas H., Jr., Chicago, Ill. Slag-furnace.....	379,625	Mar. 20	1125	298	42	1193
Adams, S. Jarvis, Pittsburg, Pa. Apparatus for withdrawing patterns from sand molds.....	377,004	Jan. 31	1857	491	42	387
Adams, S. Jarvis, Pittsburg, Pa. Sand-molding apparatus.....	377,005	Jan. 31	1859	491	42	387
Adams, S. Jarvis, Pittsburg, Pa. Sand-molding apparatus.....	377,006	Jan. 31	1862	491	42	387
Adams, S. Jarvis, Pittsburg, Pa. Sand-molding apparatus.....	377,007	Jan. 31	1864	492	42	387
Adams, S. Jarvis, Pittsburg, Pa. Sand-molding apparatus.....	377,008	Jan. 31	1867	492	42	388
Adams, S. Jarvis, Pittsburg, Pa. Sand mold.....	377,009	Jan. 31	1868	492	42	388
Adams, S. Jarvis, Pittsburg, Pa. Withdrawing patterns from sand molds.....	377,010	Jan. 31	1870	492	42	388
Adams, S. Jarvis, Pittsburg, Pa. Preparing sand molds.....	386,951	July 31	2409	634	44	500
Adams, Stephen G., and J. B. Seymour, Jr., assignors of one-third to C. L. Leonori, St. Louis, Mo. Printing device.....	379,884	Mar. 20	1534	405	42	1273
Adams, Thomas E., Cleveland, Ohio. Arc lamp.....	380,074	Mar. 27	1815	484	42	1337
Adams, Thomas E., Cleveland, Ohio. Insulator or bracket-support for electric wires.....	390,741	Oct. 9	756	198	45	157
Adams, Walter S., assignor to J. G. Brill Company, Philadelphia, Pa. Changeable signal-light for railway-cars.....	391,008	Oct. 16	1157	307	45	239
Adams & Westlake Company. (See Hitchcock, Charles A., assignor.)						
Adams & Westlake Company. (See Madden, Gustave, assignor.)						
Adams & Westlake Company. (See Myers, Garson, assignor.)						
Adams & Westlake Manufacturing Company. (See Hubbard, Frederick J., assignor.)						
Adams, William E., Lynn, Mass. Leather-splitting machine.....	378,157	Feb. 21	1223	319	42	751
Adams, William E., Lynn, Mass. Leather-splitting machine.....	378,158	Feb. 21	1226	320	42	752
Adams, William E., Lynn, Mass. Leather-stretching machine.....	388,611	Aug. 28	2164	581	44	1010
Adams, William H., Bellaire, Ohio. Mold-stripper.....	393,199	Nov. 20	1490	389	45	899
Adamson, Charles W. (See Howard, William A., assignor.)						
Adamson, James H., Melbourne, Victoria, assignor of one-half to J. F. and B. F. Mellor, Adelaide, South Australia. Machine-beltng.....	376,174	Jan. 10	641	171	42	134
Adcock, Edmund, assignor to E. B. Preston, Chicago, Ill. Turn-table extension-ladder truck.....	383,681	May 29	2685	710	43	1064
Addax Basting Machine Company. (See Angell, Edwin E., assignor.)						
Addington, Joseph C. (See Smith, Daniel W., assignor.)						
Addy, Charles J., Malden, assignor to Tapley Machine Company, Boston, Mass. Burnishing-machine.....	382,581	May 8	1073	275	43	724
Addy, Charles J., Malden, Mass., assignor to Tapley Machine Company, Portland, Me. Heel-burnishing machine.....	383,934	June 5	139	40	43	1147
Addy, Charles J., Malden, Mass., assignor to Tapley Machine Company, Portland, Me. Heel-burnisher.....	385,291	June 26	2189	559	43	1569
Ade, William F., Jr., Williamsport, Pa. Bed-bottom.....	382,501	May 8	945	239	43	699
Adee & Co., Fred. (See Smith, Benjamin C., assignor.)						
Adee & Co., Fred. (See Thomas, Samuel E., assignor.)						
Adelsperger, Charles C., assignor to C. L. Bogle, Springfield, Ohio. Shifting seat.....	385,831	July 10	743	194	44	152
Ader, Clement, Paris, France. Telegraphy.....	377,879	Feb. 11	816	208	42	665
Ader, Clement, Paris, France. Electric signaling.....	388,008	Aug. 21	1233	335	44	827
Ader, Henry, Somerset, Ind. Bottle.....	378,752	Feb. 28	2089	550	42	926
Adie, Patrick, deceased, London, county of Middlesex, England; W. G. Henderson, Washington, D. C., administrator. Driving-belt and wheel.....	376,975	Jan. 21	1813	477	42	369
Adjustable Die and Stock Company. (See Oehmen, Bartholomew, assignor.)						
Adkins, Charles, Terre Haute, Ind. Combined rule, level, and plumb.....	384,951	June 26	1657	431	43	1461
Adkins, Erastus V., Grayland, Ill. Steam and warm-air heater.....	393,735	Dec. 4	1	1	45	1073



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Adler, Abraham S., Baltimore, Md. Last	379,039	Mar. 6	261	73	42	1015
Adler, Alfred A. (See Gramling and Adler.)						
Adler, Gustav A. (See Seery, Peter H., assignor.)						
Adler, Morris, et al. (See Haiman, Elias, assignor.)						
Adrianne, Benjamin. (See Kittredge and Adrianne.)						
Adrianne, Benjamin, Brooklyn, N. Y. Horn for can-forming machines	389,828	Sept. 18	1553	411	44	1383
Adrianne, Benjamin, Brooklyn, assignor to Abbott Manufacturing Company, New York, N. Y. Machine for wiring corks in bottles	390,742	Oct. 9	758	198 199 200 201 202	45	157
Adset, John C., et al. (See Severance, James R., assignor.)						
Adt, Leo F., Waterbury, Conn. Photographic-tray holder	375,912	Jan. 3	216	67	42	51
Adt, Leo F., Waterbury, Conn. Photographic-printing frame	376,840	Jan. 21	1638	428	42	335
Adt, Leo F., Waterbury, Conn. Photographic-printing frame	381,315	Apr. 17	1528	412	43	314
Acby, Leo, Columbus, Ohio. Watch hair-spring stud	384,668	June 19	1239	326	43	1373
Acby, Leo, Columbus, Ohio. Stem winding and setting watch	384,669	June 19	1240	327	43	1373
Acby, Leo, Columbus, Ohio. Banking device for time-piece escapements	384,670	June 19	1242	327	43	1374
Aeolian Organ and Music Company. (See Parker, William D., assignor.)						
Aeolian Organ and Music Company. (See Stone, Frank, assignor.)						
Aefeltranger, Rudolf, Zurich, Switzerland. Smoke-consuming furnace	384,818	June 19	1467	383	43	1416
Agassiz, Fils. (See Piquet, Ami L., assignor.)						
Agenten, Joseph, Sheboygan, assignor to Esterly Harvesting Machine Company, White-water, Wis. Reel-driving gear for harvesters	381,109	June 5	386	108	43	1195
Ahlquist, Anton, Ishpeming, Mich. Finger-shield	388,519	Aug. 28	2030	516	44	983
Ahrends, John, Monmouth, Kans. Churn	378,753	Feb. 28	2090	551	42	926
Ahrends, John, Monmouth, Kans. Washing-machine	391,771	Oct. 30	2213	599 600	45	465
Aiken, Henry, Homestead, Pa. Water-cooler valve for furnaces	391,448	Oct. 23	1781	476	45	365
Aiken, Henry, Homestead, Pa. Mill appliance	393,051	Nov. 20	1289	334	45	859
Aiken, Robert H., San Antonio, Tex. Banana-case	392,706	Nov. 13	778	197	45	751
Aiken, William A. (See Huntington and Tracy, assignors.)						
Aiken, William A. (See Sweett, George C., assignor.)						
Aikins, Frederick T., Toronto, Ontario, Canada. Device for checking horses	381,316	Apr. 17	1529	412	43	314
Aikman, David, Montreal, Quebec, Canada. Apparatus for the manufacture of peat fuel	390,545	Oct. 2	493	129 130	45	99
Aikman, David, Montreal, Quebec, Canada. Peat fuel	390,546	Oct. 2	497	130	45	100
Aikman, David, Montreal, Quebec, Canada. Manufacturing peat fuel	390,547	Oct. 2	498	130	45	100
Aitchison, Robert, Burtonsville, Md. Feed-trough	391,230	Oct. 16	1461	390	45	297
Aitchison, Christopher, Loanhead, county of Mid-Lothian, Scotland. Beating-engine	387,840	Aug. 14	963	250	44	765
Akbar Manufacturing Company. (See Goodenough, Thomas, assignor.)						
Akeo, James. (See Traver, Adolbert L., assignor.)						
Akerley, Frank L., Poughkeepsie, N. Y. Suspenders	385,898	July 10	852	225	44	175
Akers, John M. (See Heston and Akers.)						
Akers, John M., Alliance, Ohio. Store-service apparatus	392,771	Nov. 13	885	226	45	771
Akins, Abraham L., Larimer's Station, Pa. Mechanical movement	377,509	Feb. 7	248	60	42	542
Akron Iron Company. (See Alderice, Winslow, assignor.)						
Akron Iron Company. (See Baldwin and Hadfield, assignors.)						
Akron Iron Company. (See Baldwin and Sedgwick, assignors.)						
Albaugh, George W., State Line, Pa. Combined barrow, clod-crusher, and land-roller	376,841	Jan. 24	1639	429	42	335
Albaugh, Isaac C., and J. C. Gillespie, Challacombe, Kans. Joint for railway T-rails	386,679	July 24	1979	522	44	411
Alber, Erhard T., Lodi, Mich. Fence	386,372	July 17	1523	403	44	311
Albert, Henry. (See Jeffrey, John H., assignor.)						
Albrecht, Henry C., Terre Haute, Ind. Stand for displaying goods	389,536	Sept. 18	1107	293	41	1297
Albrecht, Johan, Buffalo, N. Y. Boot-crimper	394,748	Dec. 18	1549	405	45	1390
Alden, Charles S., Rochester, N. Y. Pocket-box for cigarettes, &c	376,056	Jan. 10	465	125	42	101
Alden, Clarissa B., administratrix. (See Alden, Gustavus S.)						
Alden, Gustavus S., deceased, Denver, Colo., C. B. Alden, administratrix. Newspaper folding, wrapping, addressing, and binding machine	389,629	Sept. 18	1259	330 331 332	44	1324
Alden, Horace A., assignor to Acme Hay Harvester Company, Peoria, Ill. Hay-rickling device	389,537	Sept. 18	1108	213	41	1297
Alden, John E., Lake George, N. Y. Combined table and sofa	378,995	Mar. 6	200	54, 55	42	1004
Alden, John E., Lake George, N. Y. Combined sofa and table	378,996	Mar. 6	202	55	42	1005
Alden, Lee P., Tustin, Mich. Car-coupling	389,491	Sept. 11	1045	278	41	1278
Alden Type Machine Company. (See Johnson and Low, assignors.)						
Alden Type Machine Company. (See Low, A. Augustus, assignor.)						
Alden, William B., Brooklyn, N. Y. Nail	382,676	May 15	1215	315	41	761
Alderman, Charles S., Danville, Ill. Bolting-reel	395,026	Dec. 25	2014	520	45	1488
Aldon, Edward, and H. E. Schmitz, Brooklyn, N. Y. Embroidering-machine attachment	380,075	Mar. 27	1822	485	42	1338
Aldrich, Frank A., Winchendon, Mass. Vehicle-pole tip	387,754	Aug. 14	842	217	44	740
Aldrich, Hosea P., Somerville, Mass. Sewing-machine	393,414	Nov. 27	1806	477	45	969
Aldrich, Jonas H., Butler, Ind. Journal-box	389,185	Sept. 11	591	151	44	1191
Aldrich, Ralph W. E., Northampton, Mass. Plume, tassel, &c	384,734	June 19	1336	348	43	1391
Aldrich, Ralph W. E., Northampton, Mass. Plume	387,877	Dec. 4	216	58	45	1112
Aldrich, Wales, Dayton, Ohio. Cash register and indicator	390,542	Apr. 3	355	101 102	43	72
Aldrich, Wales, assignor to Hoover & Gamble, Miamisburg, Ohio. Mowing-machine	388,807	Sept. 4	1	1	44	1073
Aldrich, William H. (See Humble, Albert A., assignor.)						
Alexander, Edward C., and D. Lynn, Detroit, Mich. Folding bed	390,640	Oct. 9	615	165	45	431
Alexander-Katz, Richard, Berlin, Germany. Automatic apparatus for the sale of newspapers, &c	378,945	Mar. 6	119	34, 35	42	990
Alexander, James, Cherry Fork, Ohio. Fruit-gatherer	386,680	July 21	1980	523	41	411
Alexander, James G., Ila, Mo. Horse hay-rake	376,175	Jan. 10	642	171	42	131
Alexander, James H., assignor to C. H. Tryon, Syracuse, N. Y. Hand-truck	382,248	May 1	510	138	43	613
Alexander, John C. (See Highton and Alexander.)						
Alexander, Jonah S. (See Crist and Alexander.)						
Alexander, Robert O., et al. (See Yarbrough, Charles F., assignor.)						
Alexander, Thomas J., Westerville, Ohio. Windmill	378,073	Feb. 21	1093	287	42	729
Alexander, Urbana D., assignor of one-half to Canonsburg Iron and Steel Company, Canonsburg, Pa. Stove-pipe	381,871	Apr. 24	2261	613 614	43	494
Alexander, William J. (See Haughton and Alexander.)						
Alexanderson, Claus, San Francisco, Cal. Horse-brushing machine	391,902	Dec. 18	1819	471	45	1411
Alfinan, Harry, and L. Scharff, Mobile, Ala. Umbrella	384,551	June 12	1064	278	43	1330

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Allbe, Edward P., Boston, Mass. Side-stick for printers' galleys	383,682	May 29	2687	710	43	1064
Allbee, Alexander C., Wakefield, assignor to Smith & Anthony Stove Company, Boston, Mass. Adjustable flask-clamp	378,640	Feb. 28	1931	513	42	898
Allderdice, Winslow, assignor to Akron Iron Company, Akron, Ohio. Die and die-holder for drawing	376,222	Jan. 10	707	188	42	145
Allderdice, John W., Waterbury, Conn. Photographic-print register	387,841	Aug. 14	964	250	44	765
Allderdice, John W., Waterbury, Conn. Paper-clip	392,394	Nov. 6	327	81	45	656
Alleman, Joseph J., Union Springs, N. Y. Bloating-needle	387,480	Aug. 7	411	108	44	653
Allen, Albert A. (See Millard, Augustus C., assignor.)						
Allen, Anna E., et al. (See Haynes, Cornelius E., assignor.)						
Allen, Augustus V., Joplin, Mo. Grooving-machine	376,057	Jan. 10	466	125	42	101
Allen, Chancellor C. (See Crockett and Allen.)						
Allen, Charles. (See Johnson and Allen.)						
Allen, Charles. (See Sibley and Allen.)						
Allen, Charles F., Burlington, Iowa. Horse-collar	391,572	Oct. 30	2376	645	45	497
Allen, Charles J. (See Köch, Eberhard, assignor.)						
Allen, Charles J., New Orleans, La. Rice-separator	382,931	May 15	1553	407	43	8 9
Allen, Charles W., Deer Park, Ontario, Canada. Holder for mail-bags	380,543	Apr. 3	360	103	43	71
Allen, Clorista E., et al. (See Grainger, Edwin D., assignor.)						
Allen, David B., and E. K. Warren, Three Oaks, Mich. Whip	375,974	Jan. 3	341	92	42	69
Allen, David H., and M. Loeve, Miamisburg, Ohio. Lock-out	394,948	Dec. 25	1895	491	45	1465
Allen, Delos, Chicago, Ill. Car-axle box	388,238	Aug. 21	1607	430	41	896
Allen, Edward B., assignor to J. W. Brooks, trustee, Portland, Me. Heel-loading machine	375,913	Jan. 3	247	67	42	52
Allen, Edward B., Portland, Me., assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-trimming machine	377,284	Jan. 31	2261	508	42	463
Allen, Edward B., Portland, Me., assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-nailing and breasting machine	377,285	Jan. 31	2265	538 599	42	463
Allen, Edward B., Portland, Me., assignor to J. W. Brooks, trustee, Cambridge, Mass. Machine for making flexible nail-strips	378,859	Mar. 6	1	1	42	967
Allen, Edward B., Portland, Me., assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-nailing machine	384,343	June 12	756	198	43	1272
Allen, Edward B., Portland, Me., assignor to J. W. Brooks, trustee, Cambridge, Mass. Nail-sorting machine	384,735	June 19	1337	348 349	43	1391
Allen, Edward B., assignor to Stanley Manufacturing Company, Portland, Me. Buffing-machine	392,707	Nov. 13	778	197	45	751
Allen, Edward M., assignor to S. E. Allen, Stafford, Md. Wagon	376,934	Jan. 24	1760	463	42	358
Allen, Erasmus W. (See Newton, Obadiah G., assignor.)						
Allen, Erasmus W., Seneca, Kans., assignor of one-half to O. G. Newton, Trenton, Mo. Washing-machine	393,957	Dec. 4	327	89	45	1135
Allen, Ethan, St. Louis, Mo. Brake for cable railways	393,601	Nov. 27	2096	549	45	1028
Allen, Frank H., Port Allen, La. End-gate	376,842	Jan. 24	1640	429	42	335
Allen, Frank W. (See Howland and Allen.)						
Allen, Frank W., Rochester, N. Y. Cuff-fastening	380,415	Apr. 3	158	45	43	33
Allen, George E., Youngstown, Ohio. Speculum	379,553	Mar. 20	1011	271	42	1173
Allen, George F. (See Allen, James and G. F.)						
Allen, George H., et al. (See Toms, Louis N., assignor.)						
Allen, George M., Cherryfield, Me. Wrench	379,627	Mar. 20	1127	298	42	1193
Allen, George W., Manchester, county of Lancaster, and H. J. A. Bowers, Acton, London, England. Feed-water purifier	379,671	Mar. 20	1188	314 315	42	1206
Allen, Harry W., assignor of one-half to J. R. Bender, Chicago, Ill. Fish-plate and fastening	393,320	Nov. 20	1669	440	45	934
Allen, Henry H., et al. (See Bridewell, Richard F., assignor.)						
Allen, Horace R., Indianapolis, Ind. Car-wheel	383,846	June 5	1	1	43	1121
Allen, James and G. F., St. Augustine, Fla. Car-beater	386,734	July 24	2052	541	44	424
Allen, John F., New York, N. Y. Casting ordnance	375,791	Jan. 3	94	28	42	21
Allen, John F., New York, N. Y. Press	377,132	Jan. 31	2045	535	42	421
Allen, John F., New York, N. Y. Gas-scrubber	389,785	Sept. 18	1495	394	44	1352
Allen, John H., Keyser, W. Va. Washing-machine	383,683	May 29	2688	711	43	1065
Allen, John J., Halifax, county of York, England. Machine for gumming paper	386,863	July 31	9283	600	41	475
Allen, John J., Halifax, county of York, England. Apparatus for feeding paper	390,277	Oct. 2	107	30, 31	45	25
Allen, John W., Hartford, Conn. Attachment for lathes	381,097	Apr. 17	1225	329	43	255
Allen, Leo J. (See Allen, Thomas Y. and L. J.)						
Allen, Nathaniel, assignor of one-half, by mesne assignments, to A. R. York, trustee, Lowell, Mass. Hair-crimper	388,387	Aug. 28	1857	495	41	949
Allen, Orren, Denver, Colo. Electrical railway	392,772	Nov. 13	886	227	45	772
Allen Paper Car Wheel Company. (See Davies, John R., assignor.)						
Allen, Sallie E. (See Allen, Edward M., assignor.)						
Allen, Samuel L., Cinnaminson, N. J. Sled	381,665	Apr. 24	2049	536 537	43	435
Allen, Samuel L., Cinnaminson, N. J. Potato-digger	387,331	Aug. 7	196	51	44	609
Allen, Samuel L., Cinnaminson, N. J. Cultivator	387,332	Aug. 7	198	52	44	609
Allen, Samuel L., Cinnaminson, N. J. Cultivator	387,333	Aug. 7	200	52	44	610
Allen, Stephen S. (See Lewis and Allen.)						
Allen, Thomas Y. and L. J., Skipwith, Va. Tobacco-hanger	386,228	July 17	1330	351	44	274
Allen, Walter J., assignor of two-thirds to P. J. Cole and L. J. Hickey, Springfield, Ohio. Valve for steam-engines	383,935	June 5	140	40	43	1147
Allen, Wealthy J., Arkansas City, and B. West, Winfield, Kans. Combined step-ladder and ironing-board	380,159	Mar. 27	1933	515	42	1360
Allen, William H. (See Jennings and Allen.)						
Allen, William R., assignor of one-half to L. C. Marks Cape Vincent, N. Y. Cutter-head and means for adjusting the cutters of the same	384,491	June 12	965	251	43	1312
Altfree, James B., Indianapolis, Ind., assignor of one-half to R. Shriver and H. Swartz-welder, Cumberland, Md. Governor for steam-engines	382,932	May 15	1555	407	43	830
Altfree, James B., Indianapolis, Ind., assignor of one-half to R. Shriver and H. Swartz-welder, Cumberland, Md. Governor for steam-engines	383,267	May 22	2079	546	43	940
Altfree, James B., Indianapolis, Ind., assignor of one-half to R. Shriver and H. Swartz-welder, Cumberland, Md. Dust-collecting machine	385,899	July 10	853	225 226	44	175
Altoever, Augustus, New York, N. Y. Drill-stock	383,031	May 15	1715	416	43	860
Allin, Samuel S., Bedford Park, county of Middlesex, England. Water-motor	379,753	Mar. 20	1306	348	42	1229
Allington, William E., East Saginaw, Mich. Furnace-feeder	391,873	Oct. 30	2378	645 646	45	497
Allington, William E., East Saginaw, and W. H. Curtis, Jackson, Mich. Dust-separator	389,786	Sept. 18	1497	394	44	1372
Allington, William E., East Saginaw, and W. H. Curtis, Jackson, Mich. Dust collector and separator	394,240	Dec. 11	748	198	45	1223

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Allis & Co., E. P. (See Gray, William D., assignor.)						
Allis & Co., Edward P. (See Fender, William J., assignor.)						
Allis & Co., W. P. (See Hinkley, George M., assignor.)						
Allis & Company, E. P. (See Gray, William D., assignor.)						
Allis & Company, Edward P. (See Gray and Birkholz, assignors.)						
Allis, Edward P. (See Hanson, Dempsey B., assignor.)						
Allison, Frank, Grand Crossing, assignor to G. M. Greenebaum and F. G. Holton, Chicago, Ill. Machine for making cut nails.	394,903	Dec. 18	1820	{ 471 472 }	45	1411
Allison, Hugh B., Des Moines, Iowa. Propeller for vessels.	387,616	Aug. 14	645	167	44	703
Allison, James E., Xenia, Ohio. Car-coupling.	395,107	Dec. 25	2135	552	45	1512
Allnauth, Alois, New York, N. Y. Pedal reed-organ attachment for organs or pianos.	390,051	Sept. 25	1901	{ 501 502 }	44	1459
Allsopp, William. (See Walker and Allsopp.)						
Allstot, Martin L., Lawrence, Kans. Dry separator and amalgamator.	392,978	Nov. 20	1187	309	45	839
Allyn, William B., Boston, Mass. Rotary pump.	385,832	July 10	746	195	44	152
Alm, Hans A., Red Lake Falls, Minn. Cash-register.	381,520	Apr. 24	1849	489	43	395
Almond, Thomas R., New York, N. Y. Reamer.	376,501	Jan. 17	1103	289	42	226
Almorth, Gustaf, assignor of one-half to J. Stark, Waltham, Mass. Protractor.	387,481	Aug. 7	412	108	44	653
Alpine Safe Company. (See Peters, William F., assignor.)						
Alpress, Edward A., New Britain, Conn. Taper attachment for lathes.	376,843	Jan. 24	1641	{ 429 430 }	42	335
Alpress, Edward A., New Britain, Conn. Universal feed attachment for engine-lathes.	326,177	July 17	1240	{ 330 331 }	44	258
Alsford, Egbert. (See Paul, George D., assignor.)						
Alsford, Egbert, et al. (See Vreeland, Cyrus E., assignor.)						
Alshouse, Henry W., Custer, Ind. Gate.	380,306	Apr. 3	1	1	43	3
Alsip, Samuel H. (See Alsip, William and S. H.)						
Alsip, William and S. H., Mokenca, Ill. Brick-kiln.	383,936	June 5	141	{ 40 41 42 }	43	1148
Altfather, William F., Weatherford, Tex. File-case.	326,952	July 31	2412	634	44	500
Altheide, Joseph H. (See Schwarzhurg, Blank, and Altheide.)						
Althouse, Milo J., Waupun, Wis. Pump.	384,185	June 5	509	139	43	1220
Althouse, Milo J., Waupun, Wis. Grinding-mill.	385,035	June 26	1798	463	43	1490
Altick, William B., Lancaster, Pa. Two-wheeled vehicle.	395,021	Dec. 25	2015	520	45	1488
Altmann, Frank C., New Haven, Conn. Spring for scissors, &c.	382,502	May 8	946	240	43	699
Aluminium Company. (See Webster, James, assignor.)						
Aluminium Process Company. (See Baldwin, William A., assignor.)						
Aluminium Product Company. (See Howard and Hill, assignors.)						
Alvey, Benedict P., St. Marys, Ind., and F. Lesure, Marshall, Ill. Whiffletree-coupling.	393,347	Nov. 27	1711	453	45	951
Alvord, Jabez, assignor of one-half to R. H. Cooke, Winsted, Conn. Barrel-head.	376,223	Jan. 10	708	188	42	145
Aman, Leo, St. Louis, Mo. Railway fish-joint.	387,031	July 31	2522	663	44	522
Amazecn, Christopher, Boston, Mass. Sole-edge burnisher.	388,751	Aug. 28	2362	637	44	1047
Amberg, Abe M., et al. (See Tracy, William P., assignor.)						
Amber, Edmund H., Beatrice, Nebr. Window-screen fixture.	391,166	Oct. 16	1308	349	45	267
Amber, Smith. (See Smith and Amber.)						
Amborn, George, Jr., Lincoln, assignor to Campbell Machine Company, Pawtucket, R. I. Wax-thread sewing-machine for stitching uppers to soles.	388,752	Aug. 28	2363	637	44	1047
American Acetic Acid Company. (See Wilson, John, assignor.)						
American Aluminum Company. (See Seymour, Frederick J., assignor.)						
American Arithmometer Company. (See Burroughs, William S., assignor.)						
American Arms Company. (See Hood, Arthur F., assignor.)						
American Automatic Gas-Lighting Company. (See Shaw, Nathaniel H., assignor.)						
American Barrel and Stave Company. (See Beasley and Rehffuss, assignors.)						
American Barrel and Stave Company. (See Beasley, Rehffuss, and Newhall, assignors.)						
American Barrel and Stave Company. (See Newhall, George M., assignor.)						
American Barrel and Stave Company. (See Rehffuss, George, J. G., and M. O. assignors.)						
American Barrel and Stave Company. (See Rehffuss, John G., assignor.)						
American Bell Telephone Company. (See Bailey, Robert M., assignor.)						
American Bell Telephone Company. (See Bergmann, Sigmund, assignor.)						
American Bell Telephone Company. (See Berthold, V. Maximilian, assignor.)						
American Bell Telephone Company. (See Brown, Charles, assignor.)						
American Bell Telephone Company. (See Gilliland, Ezra T., assignor.)						
American Bell Telephone Company. (See Hibbard, Angus S., assignor.)						
American Bit-Brace Company. (See Pedersen, Johannes T., assignor.)						
American Bolster Spring Company. (See Hunter, James M., assignor.)						
American Brake Company. (See Guels, Herman, assignor.)						
American Brake Company. (See Wahlert, Henry A., assignor.)						
American Buckle and Cartridge Company. (See Place, William B., assignor.)						
American Button Fastener Company. (See Richards, Francis H., assignor.)						
American Concentrated Must Company. (See Springmühl, Ferdinand, assignor.)						
American Conduit and Construction Company. (See Richardson, George, assignor.)						
American Economic Heater Company. (See Young, Charles M., assignor.)						
American Electric Arms and Ammunition Company. (See Day, Selden A., assignor.)						
American Electric Register Company. (See Scales, Edward A., assignor.)						
American Elevator Company. (See Ford, Thomas P., assignor.)						
American Elevator Company. (See Gibson, William P., assignor.)						
American Fire Hose Manufacturing Company. (See Sibley and Allen, assignors.)						
American Heeling Machine Company. (See Merritt, Edward, assignor.)						
American Heeling Machine Company. (See Tyler and Merritt, assignors.)						
American Injector Company. (See Murock, Horace B., assignor.) (Reissue.)						
American Lead and Zinc Works. (See Hill, Richard W., assignor.)						
American Magnetic Electric Company. (See Humans, William, assignor.)						
American Manufacturing Company. (See Leopold, Charles F., assignor.)						
American Metallic Fabric Company. (See Thomas, Samuel T. and W. S., assignors.)						
American Patent Exchange. (See Magruder, George C. W., assignor.)						
American Patent Rights Corporation. (See Schultz, Charles H. S., assignor.)						
American Pavement Company. (See Loy, Daniel O., assignor.)						
American Pneumatic Railway Company. (See Goebel, Christian H., assignor.)						
American Pneumatic Railway Company. (See Oehle, Albert C., assignor.)						
American Press Association. (See Cummings, John R., assignor.)						
American Printing House for the Blind. (See McElroy, James F., assignor.)						
American Ring Company. (See Andrews, Clayton C., assignor.)						
American Ring Company. (See Conover, George, assignor.)						

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
American Ring Company. (See Fiske, Henry P., assignor.)						
American Roll Paper Company. (See Ehrlich, Leo., assignor.)						
American Roll Paper Company. (See Pickles, Charles K., assignor.)						
American Roll Paper Company. (See Tivy and Ehrlich, assignors.)						
American Screw Company. (See Rogers, Charles D., assignor.)						
American Semaphore Company. (See Stitzel, Frederick, assignor.)						
American Semaphore Company. (See Stitzel and Weinedel, assignors.)						
American Ship Windlass Company. (See Grater and Whitney, assignors.)						
American Shoe Tip Company. (See Taylor, Eugene H., assignor.)						
American Slag Furnace Company. (See Peck, Orrin B., assignor.)						
American Spindle Company. (See Dudley, Sumner A., assignor.)						
American Telephone and Telegraph Company. (See Barrett, John A., assignor.)						
American Type Setter Company. (See Dow, Lorenzo, assignor.)						
American Waltham Watch Company. (See Lawrence, Alvin, assignor.)						
American Writing Machine Company. (See Fairfield, John M., assignor.)						
American Writing Machine Company. (See Yost, George W. N., assignor.)						
Ames, Addison H., Philadelphia, Pa. Railway tie	391,999	Oct. 30	2562	695	45	532
Ames, Charles H., assignor of one-half to T. F. Raynor, Delta, Ohio. Inside blind for windows	393,052	Nov. 20	1290	334	45	859
Ames, Charles L., et al. (See Granger, Alvan P., assignor.)						
Ames, Chester L. and J. P., Cavery, Ill. Baling press	392,657	Nov. 13	708	178	45	736
Ames, David J., Owatonna, Minn. Millstone or mill-plate dress	392,747	May 15	1308	314	43	779
Ames, David J., Owatonna, Minn. Cotton-seed separator	393,053	Nov. 20	1291	335	45	860
Ames, Emilie N., San Francisco, Cal. Device for closing and carrying purses, &c.	390,416	Apr. 3	159	45	43	33
Ames, James P. (See Ames, Chester L. and J. P.)						
Ames, Joseph H. (See Warren and Ames.)						
Amesbury, George W., deceased, Philadelphia, Pa.; G. M. Brill, administrator. Device for sharpening saws	378,277	Feb. 21	1410	369	42	786
Amet, Edward H., assignor to H. A. Streeter, Chicago, Ill. Automatic weighing and recording scale	380,672	Apr. 10	557	153 151	43	121
Amet, Edward H., assignor to H. A. Streeter, Chicago, Ill. Automatic weighing and recording apparatus	385,900	July 10	857	226 227 228	44	175
Amet, Edward H., assignor to himself and H. A. Streeter, Chicago, Ill. Automatic coin-controlled ticket-printing weighing-scale	387,842	Aug. 14	965	250 251 252	44	765
Amet, Edward H., assignor to himself and H. A. Streeter, Chicago, Ill. Signaling attachment for weighing-scales	391,831	Oct. 30	2318	620	45	425
Amet, Edward H., assignor to H. A. Streeter, Chicago, Ill. Automatic scale for weighing cars and recording the weights	392,531	Nov. 6	518	150	45	694
Amick, Myron J. (See Barber, Edwin L., assignor.)						
Amick, Myron J., Portland, Oreg. Automatic gas-regulator. (Reissne)	10,901	Feb. 14	1088	256	42	720
Amies, Joseph H., Reading, Pa. Gas-enriching apparatus	378,418	Feb. 28	1613	425	42	833
Ammerman, William M., Charleston, Ill., assignor to E. J. Toof, New Haven, Conn. Button-hole attachment for sewing-machines	388,172	Aug. 21	1518	404	44	877
Ammons, John B., Atlanta, Ga., assignor of two-thirds to G. W. Reardon, Sumter, S. C., and D. P. Morris, Atlanta, Ga. Cotton-chopper	376,274	Jan. 10	775	206	42	159
Amos, George W., Chicago, Ill. Lubricator	377,593	Feb. 7	358	92	42	564
Amos, George W., Chicago, Ill. Seal-lock	389,732	Sept. 18	1428	372	44	1358
Amoskeag Indurated Fibre Ware Company. (See Keyes, Frank E., assignor.)						
Amstutz, Daniel S., Orrville, Ohio. Portable apparatus for scalding hogs	392,773	Nov. 13	889	227	45	772
Amundson, Hans, Racine, Wis. Seed-sower	387,941	Aug. 14	1131	303	44	797
Anable, Francis M., Rocklin, Cal. Device for catching stock	390,331	Oct. 2	182	49	45	39
Anable, Henry N. (See Lyman and Johnson, assignors.)						
Andersch, Wilhelm, assignor of one-half to W. Reisert, Brooklyn, N. Y. Lubricator	376,809	Jan. 24	1588	416	42	326
Andersen, Jacob, Long Island City, N. Y. Machine for expanding and trimming tubes	394,548	Dec. 18	1213	317	45	1325
Anderson, Alexander, London, Ontario, assignor of one-half to S. C. Walker, Chatham, Canada. Cooking-stove	378,074	Feb. 21	1096	287	42	720
Anderson, Alexander, Elgin, assignor of one-half to G. Whyte, Northview, Scotland. Photographic bath	386,571	July 21	1334	484	44	352
Anderson, Alfred, Stromsburg, Nebr. Truss-supporter	380,471	Apr. 3	242	66	43	49
Anderson, Anders, Blossburg, Mont. Ter. Sled-brake	391,874	Oct. 30	2381	646	45	498
Anderson, Andrew W., Goodhue, Minn. Lifting-jack	386,864	July 31	2286	601	44	476
Anderson, Benjamin F. (See Acheson and Anderson.)						
Anderson, Charles A. (See Kennedy and Anderson.)						
Anderson, Charles H., Huntingdon, Pa. Buckle	393,736	Dec. 4	2	1	45	1073
Anderson, Charles J., New Haven, Conn. Sash-fastener	375,975	Jan. 3	342	92	42	70
Anderson, Charles T., Clarksburg, Md. Washing-machine	379,263	Mar. 13	575	159	42	1080
Anderson, Charley N. and R. McPhail, Waxahachie, Tex. Hame-tug	389,630	Sept. 18	1264	332	44	1325
Anderson, David S., McGrawville, N. Y. Sleigh	378,821	Feb. 28	2207	588	42	949
Anderson, Dedrick G., and J. P. Roberts, Paola, Kans. Fastener for sashes, &c.	392,000	Oct. 39	2563	695	45	533
Anderson, Edward W. (See Bruce, Robert and S. T., assignors.)						
Anderson, Elmer E. (See Barnard, John W. and D. H., assignors.)						
Anderson, Frank S. (See Vansant and Anderson.)						
Anderson, Gaven D., Sigourney, Iowa. Automatic friction-clutch for working drills	389,997	Sept. 25	1822	482	44	1443
Anderson, George V., Wilmington, Del. Leather-dressing machine	377,473	Feb. 7	187	44, 45	42	532
Anderson, George V., assignor of seven-sixteenths to C. W. Gouert, Wilmington, Del. Machine for staking and softening skins	380,239	Mar. 27	2043	546	42	1383
Anderson, George V., assignor of seven-sixteenths to C. W. Gouert, Wilmington, Del. Machine for staking and softening skins	391,221	Oct. 16	1462	390	45	298
Anderson, James C., Highland Park, Ill. Brick-machine	378,538	Feb. 28	1787	472	42	869
Anderson, James C., Highland Park, Ill. Brick-kiln	379,040	Mar. 6	262	74, 75	42	1015
Anderson, James C., Highland Park, Ill. Burning brick	379,041	Mar. 6	264	75 76 77	42	1015
Anderson, James C., Highland Park, Ill. Brick-kiln	379,923	Mar. 27	1595	421 422	42	1295
Anderson, James C., Highland Park, Ill. Brick-kiln	379,924	Mar. 27	1597	422 423	42	1295
Anderson, James C., Highland Park, Ill. Kiln for burning brick, &c.	379,925	Mar. 27	1599	423	42	1295
Anderson, James C., Highland Park, Ill. Clay block for paving, &c.	379,926	Mar. 27	1600	423	42	1296
Anderson, James C., Highland Park, Ill. Brick-kiln	379,927	Mar. 27	1601	424 425	42	1296
Anderson, James C., Highland Park, Ill. Apparatus for gaging brick and marking thereon the grade or color thereof	382,503	May 8	947	240	43	699

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Anderson, James C., Highland Park, Ill. Assorting bricks with relation to their color and grade	782,504	May 8	949	{ 240 241 }	43	700
Anderson, James C., Highland Park, Ill. Preparing brick for transportation to market	389,043	Sept. 4	343	90	44	1137
Anderson, James C., Highland Park, Ill. Flat arch and brick for building the same	394,048	Dec. 4	458	121	45	1159
Anderson, James J., assignor of one-half to J. E. Waugh, Chicago, Ill. Display-stand	378,035	Feb. 14	1039	271	42	710
Anderson, James M., Kansas City, Mo. Water-cock	376,129	Jan. 10	576	154	42	121
Anderson, John. (See Mahken, Henry, assignor.)						
Anderson, Joseph R., Philadelphia, Pa. Clothes-hook	395,108	Dec. 25	2137	552	45	1512
Anderson, Lee, Paris, Tex. Trace-lock for harness	385,223	June 26	2070	530	43	1546
Anderson, Lee, assignor of one-third to P. M. Spears, Paris, France. Nut-lock	377,185	Jan. 31	2109	556	42	436
Anderson, Lee, assignor of one-half to T. Broad, Paris, Tex. Nut-lock	384,885	June 19	1568	407	43	1435
Anderson, Lee, Paris, assignor of two-thirds to T. Broad and J. Martin, Lamar County, Tex. Hame	392,839	Nov. 13	985	252	45	791
Anderson, Lee, Paris, Tex., assignor of two-thirds to E. B. Norment and J. L. Terrill. Top-prop	394,549	Dec. 18	1214	317	45	1325
Anderson, Milton J., and B. J. Smith, Wapinitia, Oreg. Saw-mill dog	384,928	June 12	583	159	43	1243
Anderson, Ole, and T. Pattison, San Luis Obispo, Cal. Button	384,273	June 12	650	175	43	1255
Anderson, Oliver, Fort Totten, Dak. Ter. Band-cutter and feeder	377,975	Feb. 14	959	250	42	695
Anderson, Oliver, assignor of one-half to F. C. Standish, Fort Totten, Dak. Ter. Bag-fastener	375,976	Jan. 3	343	92	42	70
Anderson, Petter A., Morrellville, Pa. Screw-cutting die	382,933	May 15	1557	407	43	830
Anderson, Robert. (See Woodward and Anderson.)						
Anderson, Thomas, Brooklyn, N. Y. Hat for firemen	381,666	Apr. 24	2051	537	43	435
Anderson, Charles E., assignor to A. L. Perry, Denver, Colo., D. H. Sanders, Salt Lake City, Utah Ter., and W. E. Johns, Sioux City, Iowa. Tramway-switch	388,388	Aug. 28	1857	495	44	949
Andreen, Gustave, Omaha, Nebr. Mechanism for operating shutters	391,573	Oct. 23	1946	{ 524 525 }	45	401
Andréu, Alban. (See Bennett, John B., assignor.)						
Andrew, William, Cincinnati, Ohio. Artificial refrigeration	379,264	Mar. 13	577	160	42	1080
Andrew, William, Cincinnati, Ohio. Hinge	395,196	Dec. 25	2287	587	45	1537
Andrew, William E., Atlantic Highlands, N. J. Combined trap and seal for water-closets	395,109	Dec. 25	2138	552	45	1513
Andrews, Albert F., Avon, Conn. Friction-primer for blasting	379,147	Mar. 6	411	116	42	1044
Andrews, Arthur. (See Kitchingman, Edwin L., assignor.)						
Andrews, Benjamin, New Orleans, La. Well-boring apparatus	391,501	Oct. 23	1251	496	45	380
Andrews, Benjamin F., Myers, Mo. Mechanical movement	379,499	Mar. 13	931	{ 250 251 }	42	1149
Andrews, Benjamin F., Myers, Mo. Mechanical movement	385,084	June 26	1872	478	43	1505
Andrews, Clayton C., assignor to American Ring Company, Waterbury, Conn. Manufacture of sheet-metal knobs	376,502	Jan. 17	1104	289	42	226
Andrews & Company, A. H. (See Andrews, Herbert L., assignor.)						
Andrews, Edgar E. (See Doty, Charles E., assignor.)						
Andrews, Edward, Pottsville, assignor of one-half to A. S. Seaman, Frackville, Pa. Car-heater	384,599	June 19	1139	301	43	1353
Andrews, Edward, assignor of one-half to W. G. Matz, Pottsville, Pa. Air-brake	385,224	June 26	2070	530	43	1546
Andrews, Emanuel. (See Georgia and Andrews.)						
Andrews, Emanuel, Williamsport, Pa. Board-rule	392,091	Oct. 30	2714	737	45	563
Andrews, F. P., et al. (See Smith, Thomas S., assignor.) (Reissue.)						
Andrews, G. Osgood, New York, N. Y. Bedclothes-holder	386,229	July 17	1330	351	41	274
Andrews, George. (See Meyers, John S., assignor.)						
Andrews, Herbert L., assignor to A. H. Andrews & Company, Chicago, Ill. Folding seat	390,431	Oct. 2	327	86	45	69
Andrews, Herbert W. (See Yuly and Andrews.)						
Andrews, John S., New York, N. Y. Hydrocarbon-furnace	393,415	Nov. 27	1811	478	45	970
Andrews, John S., New York, N. Y., and J. S. Rogers, Rockport, Mass. Furnace gas-burner	392,175	Nov. 6	1	1	45	595
Andrews, Lemuel G., Rock Island, Ill. Self-inking hand-stamp	387,692	July 31	2523	663	44	522
Andrews, Myron T., Iroquois, Dak. Ter. Straw-burning attachment for stoves	389,351	Sept. 11	836	213	44	1240
Andrews, Willard J., assignor of one-half to J. U. Musick, St. Louis, Mo. Oven-door for stoves	392,485	Nov. 6	455	114	45	681
Andrews, William, Victoria Works, Victoria Road, Aston, county of Warwick, England. Saddle	384,600	June 19	1140	301	43	1353
Andrews, William D., Brookhaven, N. Y. Pump	390,332	Oct. 2	183	50	45	39
Andrews, William T. (See Calcutt, Joseph W., assignor.)						
Andersen, Christian. (See Petersen, Henry, assignor.)						
Andrus Manufacturing Company. (See Rosentreter, Frank L., assignor.)						
Andrus, William, Reedsburg, Wis. Feed-trough	388,520	Aug. 28	2030	546	44	984
Anger Brothers. (See Anger, Louis J., assignor.)						
Anger, Louis J., assignor to Anger Brothers, New York, N. Y. Show-box for crackers	390,548	Oct. 2	499	130	45	100
Anger, Louis J., assignor to Anger Brothers, New York, N. Y. Cracker-box	392,442	Nov. 13	1921	291	45	818
Angell, Charles E., Salt Lake City, Utah Ter. Gate-latch	377,543	Feb. 7	293	74	42	551
Angell, Edwin E., Boston, Mass., assignor to Addax Basting Machine Company, Portland, Me. Sewing-machine	378,075	Feb. 21	1097	{ 287 288 }	42	729
Angst, Jakob, Pohl, Zurich, Switzerland. Potato-planting machine	392,176	Nov. 6	2	1, 2	45	595
Angus, Albirtis, St. Johnsville, N. Y. Thill-support	377,992	Feb. 11	880	235	42	678
Angus, Albirtis, St. Johnsville, N. Y. Thill-support	390,832	Oct. 9	887	235	45	181
Angus, James, St. Catharines, Ontario, Canada. Combination-tool	376,058	Jan. 10	466	125	42	101
Aniello, John A., assignor of one-half to C. Olivan, Biloxi, Miss. Life-boat	376,935	Jan. 24	1763	463	42	359
Annable, William F., Salem, Mass. Flue-cleaner	379,091	Mar. 6	341	98	42	1030
Annen, John P., and F. H. Fox, Chicago, Ill. Cuspider	385,159	June 26	1979	506	43	1527
Annett, George A., Sutherland's Corners, Ontario, Canada. Swing-machine	386,445	July 24	1643	{ 433 434 435 }	44	347
Annin, Bryant W., Minneapolis, Minn. Locomotive-velocipede	382,311	May 8	645	{ 164 165 }	43	642
Annis, David. (See Cameron, Duncan H., assignor.)						
Ansher, Herman, and B. F. Spranger, Aurora, Ill. Latch	394,949	Dec. 25	1896	491	45	1465
Ansley, Frank and G. W., Medical Lake, Wash. Ter. Fruit-picker	394,550	Dec. 18	1215	317	45	1325
Ansley, George W. (See Ansley, Frank and G. W.)						
Ansonia Brass and Copper Company. (See Woodward, George W., assignor.)						
Ansonia Brass and Copper Company, et al. (See Blackman, Ebenezer, assignor.)						
Ansonia Brass and Copper Company, et al. (See Lyman, Charles H., assignor.)						
Ansonia Clock Company. (See Davies, Walter D., assignor.)						
Anspach, Frederick J. (See Meister, Charles, assignor.)						
Anthony & Company, E. & H. T. (See Lewis, William H., assignor.)						
Anthony, Edgar W., Brookline, Mass. Cooking stove or range	379,354	Mar. 13	706	192	42	1105



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr &	Vol.	Page.
Anthony, Edgar W., Brookline, Mass. Heating-furnace .....	380,711	Apr. 10	611	{ 167 168 379 380 108 109 }	43	131
Anthony, Edgar W., Brookline, Mass. Stove or range .....	382,851	May 15	1444	{ 379 380 108 109 }	43	807
Anthony, Edwyn, London, county of Middlesex, England. Newspaper-selling apparatus ..	376,021	Jan. 3	410	{ 323 256 257 }	42	82
Anthony, James D. (See Kimball, Andrew C., assignor.) .....	378,159	Feb. 21	1929	{ 323 256 257 }	42	752
Anthony, John H., Garland, Tenn. Beading-cutter .....	378,159	Feb. 21	1929	{ 323 256 257 }	42	752
Anthony, Mark, San Francisco, Cal. Street or station indicator .....	385,985	July 10	963	{ 256 257 }	44	197
Anthony, Solomon, Conemangh, Pa. Railway-chair .....	379,148	Mar. 6	412	{ 117 118 }	42	1044
Anthony, William A., assignor to Mather Electric Company, Manchester, Conn. Electric indicator .....	387,131	July 31	2682	{ 703 704 }	44	549
Anthony, William A., Manchester, Conn., D. C. Jackson and H. J. Ryan, Lincoln, Nebr. Alternate-current electric motor .....	389,352	Sept. 11	838	{ 214 215 }	44	1240
Apoll, Jacob, assignor to Duncan & Johnston, Chicago, Ill. Board for picture and mirror backs .....	382,852	May 15	1445	{ 380 453 454 }	43	808
Appel, Daniel, Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadel-phia, Pa. Paper bag .....	378,487	Feb. 28	1717	{ 453 454 }	42	855
Appel, Daniel, Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadel-phia, Pa. Bag-machine .....	387,573	Aug. 7	578	{ 151 152 }	44	683
Appel, Daniel, Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadel-phia, Pa. Making paper bags .....	388,612	Aug. 28	2166	{ 581 582 }	44	1010
Appel, Daniel, Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadel-phia, Pa. Making paper bags .....	388,613	Aug. 28	2168	{ 582 583 }	44	1011
Appel, Daniel, Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadel-phia, Pa. Making paper bags .....	388,614	Aug. 28	2169	{ 583 584 }	44	1011
Appel, Daniel, Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadel-phia, Pa. Paper bag .....	389,353	Sept. 11	839	{ 214 215 }	44	1241
Appert, Adrien. (See Appert, Léon and A.) .....						
Appert, Léon and A., Paris, France. Perforated glass .....	376,844	Jan. 24	1643	{ 430 431 }	42	335
Appleby, Henry, Limerick, Ireland. Blast-pipe .....	391,931	Oct. 30	2464	{ 667 273 274 }	45	514
Appleby, Henry, and J. G. Robinson, Limerick, Ireland; said Robinson assignor to said Appleby. Blast-pipe .....	390,937	Oct. 9	1036	{ 273 274 }	45	210
Appleby, Joseph, Britton, Dak. Ter., assignor of two-thirds to W. J. McMillen and W. S. Martin, Breckenridge, Minn. Snow-plow .....	380,076	Mar. 27	1824	{ 485 486 }	42	1338
Appleby, William L. G., Germantown, Md. Washing-machine .....	380,272	Mar. 27	2082	{ 557 558 }	42	1391
Applegate Boot and Shoe Lasting Company. (See Hathaway and Paull, assignors.) ..						
Applegate Boot and Shoe Lasting Company. (See Lawes, Walter, assignor.) .....						
Applegate Boot and Shoe Lasting Company. (See Luskomb and Corey, assignors.) ..						
Applegate, Peter N., Kimball, Ind. Combined harrow, leveler, and cultivator .....	382,204	May 1	478	{ 123 124 }	43	601
Appleton, Charles J., Elizabeth, N. J., assignor to L. Sutro, New York, N. Y. Straight-knitting machine .....	381,898	May 1	1	{ 1 1 }	43	515
Appleton, Charles J., Elizabeth, N. J., assignor to L. Sutro, New York, N. Y. Knitted fabric .....	381,899	May 1	3	{ 1 1 }	43	515
Appleton, Charles J., assignor of one-half to J. L. Logan, New York, N. Y. Straight-knit-ting machine .....	391,832	Oct. 30	2319	{ 629 630 }	45	485
Appleton Manufacturing Company. (See Raymond, George and A., assignors.) .....						
Appleton, Robert M., Boston, Mass. Circular-knitting machine .....	391,291	Oct. 16	1564	{ 415 357 358 }	45	315
Appleton, William H., New York, N. Y., assignor to Kellogg Seamless Tube and Manufac-turing Company, Boston, Mass. Rolling-mill .....	394,635	Dec. 18	1365	{ 357 358 }	45	1352
Apsley, L. Dewar, et al. (See Hawkins, Daniel, assignor.) .....						
Arbenz, Frederick A., Philadelphia, Pa. Take-up mechanism for looms .....	388,645	Aug. 28	2171	{ 581 582 }	44	1011
Arbogast, James, Catawba, Ohio. Quilting-frame .....	378,914	Mar. 6	75	{ 21 22 }	42	981
Archdeacon, Mary T. (See Archdeacon, William, assignor.) .....						
Archdeacon, William, assignor to M. T. Archdeacon, Indianapolis, Ind. Machine for clean-ing pigs' feet .....	385,336	July 3	1	{ 1 173 174 }	44	3
Archer, John B., Washington, D. C. Letter-box .....	379,302	Mar. 13	639	{ 173 174 }	42	1092
Archer, John B., Washington, D. C. Street and station indicator .....	380,307	Apr. 3	2	{ 1 1 }	43	3
Archer, Roger W., assignor of one-third to C. F. Randolph, Beeville, Tex. Baling-press ..	380,472	Apr. 3	243	{ 66, 67 125 }	43	49
Archer, Thomas, Jr., Newcastle-upon-Tyne, England. Apparatus for winning coal, &c ..	385,655	July 3	483	{ 125 126 }	44	94
Argent, Edward H., New York, N. Y., assignor of one-half to J. W. Earle, Philadelphia, Pa. Type-writing machine .....	387,132	July 31	2684	{ 703 704 }	44	549
Argersinger, Frank H., Newkirk Mills, N. Y. Broom-board .....	3-9,682	Sept. 18	1351	{ 354 355 }	44	1342
Argo, John T., Poinexter, Ky. Combined post-office dater, canceler, and register .....	381,976	May 1	121	{ 28 131 132 }	43	536
Argue, Henry H., assignor of one-half to R. W. Argue, Derrick City, Pa. Oil or Artesian well pumping mechanism .....	380,615	Apr. 3	465	{ 131 132 }	43	94
Argue, Richard W. (See Argue, Henry H., assignor.) .....						
Arlington Manufacturing Company. (See Curtis, Francis, assignor.) .....						
Armand, Joseph, New York, N. Y. Car-bell strap .....	385,337	July 3	2	{ 1 1 }	41	3
Armbrust, Ferdinand, New York, N. Y. Machine for beveling glass .....	380,737	Apr. 10	652	{ 150 151 }	43	139
Arneah, John G. E., Plainville, assignor of one-half to J. W. Fuller, Kilbourn City, Wis. Car-coupling .....	384,671	June 19	1243	{ 328 329 }	43	1374
Arnes, Willard O. (See McDowell and Bicknell, assignors.) .....						
Armington, Pardon, Providence, R. I. Cut-off piston-valve .....	378,642	Feb. 28	1934	{ 513 514 }	42	898
Armington, Pardon, Providence, R. I. Steam-engine .....	378,643	Feb. 28	1935	{ 514 515 }	42	898
Armitage, David M., assignor of one-tenth to D. F. Griswold, Deerfield, Mich. Expansion-joint and rail-coupling .....	376,845	Jan. 24	1644	{ 430 431 }	42	336
Armitage, Herbert G., Bay Shore, N. Y., assignor of one-half to W. Pratt, Philadelphia, Pa. Combined needle-case and darning implement .....	386,283	July 17	1407	{ 370 371 }	44	288
Arnour, M. Cochran. (See Colby, Gilbert A., assignor.) .....						
Arns, Harrison, Toledo, Ohio. Stock-car .....	382,934	May 15	1559	{ 408 409 }	43	820
Arns, Henry F., et al. (See Robbins, George M., assignor.) .....						
Armstead, Henry H., Brooklyn, N. Y. Corn-busking machine .....	381,748	Apr. 24	2168	{ 567 568 }	43	457
Armstrong, Edwin J., assignor to Weston Engine Company, Painted Post, N. Y. Balanced slide-valve .....	377,221	Jan. 31	2168	{ 572 573 384 }	42	446
Armstrong, Elvin S., Jerseyville, Ill. Bee-hive .....	384,819	June 19	1469	{ 384 385 }	43	1417
Armstrong, Frank. (See Holmes, James S., assignor.) .....						
Armstrong, Frank, Bridgeport, Conn. Clasp .....	391,772	Oct. 30	2215	{ 670 671 }	45	466
Armstrong, Frank, and N. W. Vandegrift, Bridgeport, Conn. Wrench .....	392,300	Nov. 6	174	{ 45 46 }	45	627
Armstrong, Frank, and N. W. Vandegrift, assignors to Armstrong Manufacturing Com-pany, Bridgeport, Conn. Vise .....	383,165	May 22	1924	{ 563 564 }	43	910

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Armstrong, Frederick (See Lewis and Armstrong.)						
Armstrong, James, Bridgewater, N. Y. Pipe-coupling	376,130	Jan. 10	578	154	42	121
Armstrong, James A. (See Abbott, John B., assignor.)						
Armstrong, James T., London, England. Construction of stationary and itinerant electrical batteries	380,971	Apr. 10	1012	263 264 265	43	205
Armstrong Manufacturing Company. (See Armstrong and Vandegriff, assignors.)						
Arnold, Mitchell & Co., W. G. (See Brankston, Ralph T., assignor.)						
Armstrong, Mitchell & Co., W. G. (See Murray, Charles H., assignor.)						
Armstrong, Mitchell & Co., W. G. (See Noble, Andrew, assignor.)						
Armstrong, Mitchell & Co., W. G. (See Vavasseur, Josiah, assignor.)						
Armstrong, Samuel, assignor to E. J. Warner, Newark, N. J. Detonating ball	387,571	Aug. 7	582	152	44	684
Armstrong, William, Indianapolis, Ind. Table	390,938	Oct. 9	1038	271	45	210
Armstrong, William A. (See Jocelyn, Albert H., assignor.)						
Armstrong, William C., Springfield, Ohio. Feed-water heater	386,735	July 24	2053	541 542	44	424
Arn, John, Columbus, Ohio. Red spring	392,708	Nov. 13	780	197 198	45	751
Arndt, Albert P. R., Detroit, Mich. Suspender-buckle	390,432	Oct. 2	328	86	45	69
Arnett, William D., Denver, Colo. Seeding-machine	377,222	Jan. 31	2169	572	42	447
Arnett, William D., Denver, Colo. Seeding-machine	377,923	Feb. 14	880	225	42	678
Arnold, Anna M. (See Arnold, Satterlee, assignor.)						
Arnold, Benjamin, East Greenwich, R. I. Oil-distributing bomb or case	376,503	Jan. 17	1105	289 290	42	226
Arnold, Craig R., Brooklyn, N. Y. Car-lighting	376,423	Jan. 17	989	259	42	205
Arnold, George T., Lancaster, Ky. Tug or trace carrier	381,317	Apr. 17	1531	412	43	314
Arnold, George W., and W. C. Hill, Mount Pleasant, Pa. Pump	388,239	Aug. 21	1608	430	41	896
Arnold, Henry A., Lake Geneva, Wis. Vehicle-wheel	387,551	Aug. 7	535	139	41	675
Arnold, Henry P., Manchester, Iowa. Blotter-bath	378,641	Feb. 28	1932	513	42	898
Arnold, Henry L., Denver, Colo. Car-coupling	378,228	Feb. 21	1340	354	42	774
Arnold, Horace L., Brooklyn, assignor of one-half to R. W. Smith, New York, N. Y. Means for converting motion	377,133	Jan. 31	2045	535 536	42	422
Arnold, Irwin R. B., Wheaton, Ill. Apparatus for generating and storing oxygen	393,737	Dec. 4	3	2	45	1073
Arnold, James, West Smithfield, London, England. Veterinary castrating-instrument	391,107	Oct. 16	1309	349	45	267
Arnold, Rawdon, Oakland, Cal. Filler	386,421	July 17	1608	422	44	331
Arnold, Rouse H., and E. S. Staples, Seneca Falls, N. Y. Automatic damper	385,692	July 10	539	141	44	113
Arnold, Satterlee, New York, N. Y. Apparatus for guiding, straightening, and evening fabrics	378,222	Feb. 28	2208	588 589	42	949
Arnold, Satterlee, New York, N. Y. Device for transmitting and evening fabrics for sewing-machines	378,823	Feb. 28	2212	589	42	950
Arnold, Satterlee, assignor to A. M. Arnold, New York, N. Y. Uniting fabrics by sewing	378,641	Feb. 28	1937	514	42	899
Arnold, Satterlee, assignor to A. M. Arnold, New York, N. Y. Sewing-machine	378,645	Feb. 28	1938	514 515 516	42	899
Arnold, Satterlee, assignor to A. M. Arnold, Morristown, N. J. Thread-controlling mechanism for sewing-machines	391,352	Oct. 16	1642	434 435	45	340
Arnold, Satterlee, assignor to A. M. Arnold, Morristown, N. J. Thumb insertion machine	392,581	Nov. 13	593	149 150	45	715
Arnold, William S., Clyde, Kans. Railway-switch	380,972	Apr. 10	1017	266	43	206
Arutz, Adolph. (See Panyard, Joseph, assignor.)						
Aronson, Chaim, Brooklyn, N. Y. Clock striking mechanism	395,110	Dec. 25	2140	553	45	1513
Arper, George W., Oakland, Cal. Siphon	381,521	Apr. 21	1751	489	43	395
Arpin, Daniel J., Grand Rapids, Wis. Device for making ice roads	381,051	Apr. 10	1139	304 305	43	229
Arrington, Arthur, et al. (See Marshall, Eugene E., assignor.)						
Art Novelty Company. (See Fry, Benjamin, assignor.)						
Arthur, George H., Chicago, Ill. Multiple transfer-pad	381,201	Apr. 17	1368	365	43	282
Arthur, Joseph, New York, N. Y. Theatrical appliance	382,582	May 8	1074	275 276	43	725
Arthur, Thomas, assignor of one-half to R. J. Nagle, Bangor, Pa. Hydropneumatic-pressure apparatus	383,429	May 29	2317	615	43	989
Asbury, Thomas P., Tingley, Iowa. Weather-strip	376,846	Jan. 24	1646	431	42	336
Ash, Joseph S., assignor of one-half to C. B. Cowan, Canal Winchester, Ohio. Grain-cleaner	385,036	June 26	1799	463	43	1490
Ash, Joseph S., assignor of one-half to C. B. Cowan, Canal Winchester, Ohio. Dust-collector	385,037	June 26	1800	463	43	1490
Ash, Joseph S., assignor of one-half to C. B. Cowan, Canal Winchester, Ohio. Dust collector	387,617	Aug. 14	646	167	44	703
Ashburner, Joseph J., London, England. Brush	381,749	Apr. 24	2169	567	43	457
Ashby, Sarah M., Cassopolis, Mich. Sponge and slate-pencil holder	393,496	Nov. 27	1938	507	45	994
Ashcraft, Allen S., Brandenburg, Ky. Harness-oil	383,541	May 29	2449		43	1014
Ashcraft, Hugh E. (See Staples and Ashcraft.)						
Ashcroft, Edward H. (See Thompson, George M., assignor.)						
Ashcroft, Edward H., Lynn, Mass. Traction-wheel	381,202	Apr. 17	1369	366	43	282
Ashcroft, Edward H., Lynn, Mass. Safety-cover for elevator-wells, hatchways, or other roof-openings	386,620	July 24	1893	500 501	44	395
Ashcroft, Edward H., Lynn, Mass. Steam system for extinguishing fires	386,621	July 24	1894	501	44	396
Ashcroft, Edward H., Lynn, Mass. Construction of railways	388,240	Aug. 21	1610	430 431	44	897
Ashley, Lucius E., assignor of one-half to A. Clark, Stockton, Cal. Ditching and grading scraper	376,022	Jan. 3	414	109 110	42	82
Ashley, Thomas C. (See Guthrie, James F., Jr., assignor.)						
Ashton, John R. (See Guss, Orange G., assignor.)						
Ashurst, John L., Havana, assignor to L. B. Ashurst, Kilbourn, Ill. Runner for grain-drills	386,911	July 31	2356	619	44	489
Ashurst, Lewis B. (See Ashurst, John L., assignor.)						
Ashworth, Henry, Ollerton, Egleby, near Bolton, county of Lancaster, England. Spinning-mule	390,549	Oct. 2	500	131	45	100
Ashworth, James A., Yonkers, N. Y. Life-preserving chair	382,935	May 15	1559	408	43	830
Asire, Daniel, et al. (See Mabey, Jesse T., assignor.)						
Askew, Charles B., and J. K. Punnepelly, Chicago, Ill. Secondary battery	389,186	Sept. 11	592	151	44	1191
Askey, Reuben, Phillipsburg, Pa. Scissors	392,395	Nov. 6	328	84	45	636
Askree, James C., Coronado, Kans. Balanced slide-valve	388,103	Aug. 21	1287	373	41	851
Askren, Patten M., Circleville, Kans. Flexible pipe-coupling	379,628	Mar. 20	1128	290	42	1193
Assmus, Edward G., assignor of one-half to C. J. Walser, Milwaukee, Wis. Caster	381,886	June 19	1569	408	43	1435
Asmus, Edward G., assignor of one-half to C. J. Walser, Milwaukee, Wis. Lock	389,492	Sept. 11	1046	279	44	1278
Aspinwall, Lewis A., Three Rivers, Mich. Planter for cotton and other seeds	387,279	Aug. 7	113	30	44	594

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Aspinwall, Lewis A., assignor to Aspinwall Manufacturing Company, Three Rivers, Mich. Potato-digger	387,278	Aug. 7	112	30	44	594
Aspinwall, Lewis A., Three Rivers, Mich., assignor to C. W. Brega, Chicago, Ill. Check-row corn-planter	388,104	Aug. 21	1339	{ 373 374 }	44	854
Aspinwall Manufacturing Company. (See Aspinwall, Lewis A., assignor.)						
Atchison, Garret P., Chicago, Ill. Combined harrow and pulverizer	377,223	Jan. 31	2170	573	42	447
Atchley, Perry A. (See Long and Atchley.)						
Aten, Aaron P. (See King, Aten, and Floyd.)						
Aten, Frank L., Round Rock, Tex. Corn-planting attachment	379,554	Mar. 20	1012	271	42	1173
Atherton, Frank, and M. T. Bentley, Paterson, N. J. Hose-coupling	378,566	Feb. 28	1832	483	42	877
Atherton, Giles, Stockport, county of Chester, England. Coating, plating, and napping hat-bodies	389,131	Sept. 4	494	126	44	1164
Atherton, John F., Boston, Mass. Letter-file cabinet	395,197	Dec. 25	2288	588	45	1537
Atherton Machine Company. (See Potter, James C., assignor.)						
Athlophoros Company. (See Searles, Robert N., assignor.)						
Atkins, Charles H., Boston, Mass. Apparatus for removing metallic particles from paper-pulp	393,348	Nov. 27	1712	453	45	951
Atkins & Company, E. C. (See Ralva, William S., assignor.)						
Atkins & Company, E. C. (See Roberts and Sanford, assignors.)						
Atkins & Company, E. C. (See Robinson, Don C., assignor.)						
Atkins, Henry, Newark, Ohio. Wire-cloth	383,791	May 29	2869	754	43	1098
Atkins, Sullivan H., Lynn, Mass. Thill-coupling	378,860	Mar. 6	2	1	42	967
Atkinson, Andrew J., Astor, assignor of two-thirds to H. W. Fairbanks and J. T. Stocks, Atlanta, Ga. Railway-switch	376,465	Jan. 17	1050	275	42	216
Atkinson, Benjamin F., Hanover Square, county of Middlesex, England. Truss	385,587	July 3	382	99	44	76
Atkinson, Elijah B., Austin, Mo. Flood-fence	392,709	Nov. 13	700	198	45	751
Atkinson, George, Oakland, Cal. Well-boring device	394,322	Dec. 11	875	231	45	1248
Atkinson, Hobert F. (See Spencer, Charles F., assignor.)						
Atkinson & Sykes. (See Rung, Henry, assignor.)						
Atkinson, Thomas, Richmond, Va. Electric valve-controller for automatic fire-extinguishers	381,459	Apr. 17	1747	467	43	356
Atkinson, W. H., et al. (See Atkinson, William H., assignor.)						
Atkinson, William B., Franklin, Ky. Door-bell	391,108	Oct. 16	1310	350	45	267
Atkinson, William H., assignor to D. M., J. L., and G. A. Somers, W. H. Atkinson, and E. E. Somers, Brooklyn, N. Y. Sheet-metal box	386,765	July 24	2095	{ 550 551 }	44	432
Atkinson, William W., Philadelphia, Pa., assignor to E. Pearson and G. P. Freeman, New York, N. Y. Pantaloon or garment stretcher	384,492	June 12	966	252	43	1312
Atlantic Ammunition Company. (See Brittin, John W., assignor.)						
Atterbury, T. B. (See Thomas, William D., assignor.)						
Atwater, Charles. (See Stiner and Darling, assignors.)						
Atwater, Henry W., East Orange, N. J. Wrench	376,504	Jan. 17	1106	290	42	227
Atwell, William J., Chicago, Ill. Machine for attaching heel-plates	381,604	Apr. 24	1968	518	43	418
Atwell, William J., Chicago, Ill. Machine for attaching heel-plates	381,695	Apr. 24	1970	518	43	418
Atwood, Benjamin S., South Abington, Mass. Hinge	378,861	Mar. 6	3	1	42	967
Atwood, Eugene, et al. (See Bradley, Edward E., assignor.)						
Atwood, John E., et al. (See Bradley, Edward E., assignor.)						
Atwood, John E., Stonington, Conn. Stop mechanism for reeling-machines	376,571	Jan. 17	1191	{ 315 316 }	42	243
Atwood, John E., Stonington, Conn. Machine for winding quills and bobbins	384,011	June 5	250	72	43	1170
Atwood, John H., et al. (See Winick, Frederick G., assignor.)						
Atwood, John W. (See Smith, Isaac, assignor.)						
Atwood, La Motte C., assignor to L. Merrill, St. Louis, Mo. Oil-filter	390,149	Sept. 25	2048	547	44	1490
Atwood, Lewis J., assignor to Plume & Atwood Manufacturing Company, Waterbury, Conn. Argand lamp	386,953	July 31	2413	634	44	500
Atwood, Lewis J., assignor to Plume & Atwood Manufacturing Company, Waterbury, Conn. Shade-holder	387,755	Aug. 14	843	217	44	740
Atwood, Lewis J., assignor to Plume & Atwood Manufacturing Company, Waterbury, Conn. Argand lamp	387,756	Aug. 14	844	218	44	740
Atwood, Lewis J., assignor to Plume & Atwood Manufacturing Company, Waterbury, Conn. Argand lamp	388,105	Aug. 21	1390	374	44	855
Atwood, Lewis J., assignor to Plume & Atwood Manufacturing Company, Waterbury, Conn. Argand lamp	392,396	Nov. 6	329	81	45	656
Aubin, Charles T. (See Lorraine and Aubin.) (Reissue.)						
Aufrechtig, Alois, St. Louis, Mo. Beer-cooler	385,986	July 10	965	257	41	197
Aughenbaugh, Robert M., and G. E. Ruffley, Glenfield, Pa. Magazine fire-arm	383,821	Apr. 24	2289	595	43	479
Augier, Newell G., Stuart, Nebr. Wardrobe-bedstead	394,806	Dec. 18	1652	432	45	1411
August, Anthony J. (See Vannatter and August.)						
Augustin, Louise. (See Carter and Augustin.)						
Augustine, William M., South Bend, Ind. Wire-tension device	385,987	July 10	967	257		198
Ankamp, Henry A., Jr. (See Beard and Ankamp.)						
Aultman & Taylor Company. (See Galland, Joseph, assignor.)						
Ansten, Joseph H., et al. (See Leahy, Edward C., assignor.)						
Austin, Calvin A., et al. (See Doten, Clark W., assignor.)						
Austin, Charles, New York, N. Y. Darning-last	389,683	Sept. 18	1352	354	44	1342
Austin, Daniel W., et al. (See Beedy, Seth E., assignor.)						
Austin, Frank A. (See Warner and Austin.)						
Austin, Frederick C. (See Bennett and Bunnell, assignors.)						
Austin, Frederick C. (See Bunnell, Morton G., assignor.)						
Austin, Frederick C. (See Edwards, William J., assignor.)						
Austin, Frederick C. (See Gail, Harry S., assignor.)						
Austin, Frederick C. (See Gavin, John B., assignor.)						
Austin, Frederick C. (See Jacobs and Stagg, assignors.)						
Austin, Frederick C. (See Johnson, Richard, assignor.)						
Austin, Frederick C. (See Miller, George N., assignor.)						
Austin, Frederick C. (See Miller and Moats, assignors.)						
Austin, Frederick C. (See Yokom, Wilford W., assignor.)						
Austin, Frederick G. (See Chapman, Thomas G., assignor.)						
Austin, James C., Brooklyn, N. Y. Perfumery-stand	380,473	Apr. 3	246	67	43	50
Austin, John H., New York, N. Y. Forcing-cylinder for cleaning traps	382,129	May 1	372	97	43	582
Austin, Joseph, Long Branch, N. J. Oil-guard for sewing-machine treadles	395,198	Dec. 25	2289	588	45	1538
Anstin, Martha E., New Orleans, La. Salvo	379,500	Mar. 13	932		42	1149
Austin, Robert A., Sandusky, Ohio, assignor to W. P. Miller Company, Brooklyn, N. Y. Loose-pulley lubricator	376,466	Jan. 17	1051	275	42	216
Austin, William K., Brooklyn, N. Y. Steam-engine	383,430	May 29	2318	615	43	989



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Anstman, Paul, St. Louis, Mo. Musical notation .....	393,054	Nov. 20	1293	335	45	860
Auten, John E. (See Townsend and Auten.)						
Autenrieth, Ernst F., New York, assignor to Glen Cove Machine Company, (limited.) Green Point, Brooklyn, N. Y. Expansion-pulley .....	393,602	Nov. 27	2097	549	45	1028
Autenrieth, Ernst F., New York, assignor to Glen Cove Machine Company, (limited.) Brooklyn, (Green Point,) N. Y. Means for transmitting power .....	394,323	Dec. 11	876	231	45	1219
Autenrieth, Ernst F., New York, assignor to Glen Cove Machine Company, (limited.) Brooklyn, (Green Point,) N. Y. Means for transmitting power .....	394,324	Dec. 11	878	232	45	1249
Autenrieth, Ernst F., New York, N. Y., assignor to Glen Cove Machine Company, of New York. Variable driving mechanism .....	395,258	Dec. 25	2390	612	45	1556
Auth, Conrad. (See Auth, John V., assignor.)						
Auth, George, Lacon, Ill. Portfolio .....	385,085	June 26	1875	479	43	1506
Auth, John Y., assignor of one-half to C. Auth, Pittsburg, Pa. Window-glass setting .....	377,474	Feb. 7	191	45	42	532
Automatic Connection Compressed Air Car Motor Company. (See Pressley, Leonidas C., assignor.)						
Automatic Electric Alarm Company. (See Nolan, John, assignor.)						
Automatic Fence Loom Company. (See Zengel, Joseph, assignor.)						
Averill, Walter L. (See Smith, James E., assignor.)						
Avery, Charles. (See Fye, William H., assignor.)						
Avery, Charles N. (See Packer, John H., assignor.)						
Avery, Earl W., Lowell, Mich. Band-saw mill .....	381,977	May 1	123	{ 28 29 30 }	43	537
Avery Elevator Bucket Company. (See Judd, Fred W., assignor.)						
Avery, George H., Easthampton, Mass. Leather coil for washers .....	386,051	July 10	1049	{ 280 281 }	44	214
Avery, Granville O. (See Wright, William, assignor.)						
Avery, John T. (See Siming and Avery.)						
Avery, William, assignor of one-half to J. R. Prouty, Spencer, Mass. Sole-fitting machine for hoofs or shoes .....	382,631	May 8	1142	294	43	738
Avery, William B., Digbeth, Birmingham, county of Warwick, England. Apparatus for weighing grain .....	383,032	May 15	1716	{ 446 447 }	43	861
Avery, William C., Cleveland, Ohio. Combined saw-set and punch .....	387,133	July 31	2685	704	44	540
Avery, William C., Cleveland, Ohio. Elevator-bucket .....	392,532	Nov. 6	523	131	45	694
Avery, William H., Columbus, Ky. Channel-cutter .....	379,192	Mar. 6	467	132	42	1055
Avis, Theodoro C. (See Kiger, Alfred, assignor.)						
Axtell, Henry A., Montague, assignor to J. Russell Cutlery Company, Turner's Falls, Mass. Grinding-machine for cutlery .....	393,497	Nov. 27	1938	507	45	994
Axtell, J. D. (See Wythe, William R., assignor.)						
Axtell, Joseph D., Santa Barbara, Cal. Sash fastener and holder combined .....	378,351	Feb. 21	1518	397	42	807
Ayers, William H. H., assignor of one-half to J. C. Ertel, Indianapolis, Ind. Nut-lock .....	394,749	Dec. 18	1550	405	45	1390
Ayer, Alfred, Lake Weir, Fla. Device for grading oranges .....	383,205	May 22	1978	520	43	921
Ayer, Alfred, Lake Weir, Fla. Horse-detacher .....	389,354	Sept. 11	841	215	44	1241
Ayer, Frank H. (See Mills, Guy C., assignor.)						
Ayer, Frank P., Lebanon, Conn. Butter-mold .....	384,303	June 12	694	185	43	1263
Ayers, Frank W., Stanton County, assignor of one-half to W. W. Ayers, Dermot, Kans. Seed-planter .....	388,331	Aug. 21	1762	470	44	926
Ayers, Wallace W. (See Ayers, Frank W., assignor.)						
Aylworth, George H., Brighton, Ill. Sash-fastener .....	376,359	Jan. 10	894	234	42	180
Aylworth, George H., Brighton, Ill. Gate .....	384,552	June 12	1065	278	43	1331
Aylworth, George H., Brighton, Ill. Sash-fastener .....	384,553	June 12	1066	278	43	1331
Aymond, Alph. (See Hickey, Timothy J., assignor.)						
Ayres, William W., Fort Plain, N. Y. Mold for casting axle-boxes .....	393,349	Nov. 27	1713	453	45	951
Ayrton, William, <i>et al.</i> (See Wallwork, Roughsedge, assignor.)						
Babbitt, Benjamin T. (See Hermann, Henry, assignor.)						
Babbitt, Benjamin T., New York, N. Y. Apparatus for propelling vessels .....	391,932	Oct. 30	2466	667	45	514
Babbitt, S. William, and H. B. Beach, Meriden, Conn. Lamp .....	382,936	May 15	1561	408	43	831
Babbitt, Seward S., Uniontown, Pa., assignor, by mesne assignments, to J. B. Skinner, Chicago, Ill. Method of and machine for making nut-blanks .....	376,224	Jan. 10	708	{ 188 189 }	42	146
Babcock, Amos C. (See Le Roy, Charles J., assignor.)						
Babcock, Charles, assignor of one-fourth to J. M. Foster, Troy, N. Y. Potato-digger .....	378,646	Feb. 28	1942	516	42	900
Babcock, E. Stillman, assignor of one-half to P. M. Green, Milton, Wis. Compound metal- working machine .....	377,976	Feb. 14	960	250	42	695
Babcock, Edward G., assignor to C. J. White, New Britain, Conn. Garment-supporter .....	392,397	Nov. 6	331	82	45	656
Babcock, Egbert, Laurens, N. Y. Folding table .....	382,937	May 15	1564	408	43	831
Babcock, George H., Cleveland, Ohio. Window-sign. (Reissue) .....	10,952	Aug. 21	1851	493	44	942
Babcock, Henry D., and J. E. Baird, Leonardsville, N. Y. Spring-tooth harrow .....	389,044	Sept. 4	344	91	44	1138
Babcock, Melvenia V., Boston, Mass. Hair-dressing .....	385,988	July 10	968	4	44	198
Babcock, Sylvester P., Adrian, Mich. Cuff-holder .....	378,862	Mar. 6	4	1	42	967
Babin, Telesphore, assignor of one-half to A. Picou, Houma, La. Coffee strainer or filter .....	384,411	June 12	858	223	43	1292
Bach, John J., Philadelphia, Pa. Cigar-brunching machine .....	390,940	Oct. 9	1039	275	45	210
Bacharach, Isidor, <i>et al.</i> (See Class, William F., assignor.)						
Bache, R. Meade, Philadelphia, Pa. Safety self-extinguishing car-store .....	376,275	Jan. 10	777	206	42	159
Bachlott, Richard H., Jr., Savannah, and L. J. Farris, Burroughs, Ga. Automatic station- indicator .....	384,493	June 12	966	{ 252 253 }	43	1313
Bachman, Jacob, Stony Run, Pa. Harvester and binder .....	382,677	May 15	1215	315	43	761
Bachman, Joseph A., Austin, Tex. Shutter-fastener .....	380,738	Apr. 10	653	181	43	139
Bachman, Joseph A., Austin, Tex. Door-check .....	385,400	July 3	95	26	44	20
Bachrach, Abraham M., New York, N. Y. Winding-indicator for time-pieces .....	390,333	Oct. 2	186	50	45	40
Barhlein, Joseph, assignor of one-half to M. Trott, Cincinnati, Ohio. Millstone-dress .....	381,522	Apr. 24	1851	490	43	395
Back, Albert. (See Neville and Back.)						
Back, John R., assignor of one-half to F. E. Reed, Worcester, Mass. Front apron for lathe- carriages .....	388,808	Sept. 4	2	1	44	1073
Back, Tillie. (See Neville and Back, assignors.)						
Backus, Quimby S., Winchendon, Mass. Gas-log and fire-place .....	390,743	Oct. 9	764	{ 202 203 }	45	158
Backus Water Motor Company. (See Cissel, Robert B., assignor.)						
Bacon, Allan H., Webster Groves, Mo. Electro-therapeutic tool-holder .....	394,807	Dec. 18	1654	433	45	1411
Bacon, Charles N., Arlington, Mass. Polishing-wheel .....	392,979	Nov. 20	1188	309	45	831
Bacon, Clovis N., Boston, Mass. Hot-air furnace .....	381,750	Apr. 24	2169	568	43	457
Bacon, Earle C., New York, N. Y. Wire-rope tramway .....	380,011	Mar. 27	1727	463	42	1320
Bacon, Earle C., Brooklyn, assignor to Copeland & Bacon, New York, N. Y. Wadlass .....	381,203	Apr. 17	1369	366	43	282
Bacon, Francis, Waterloo, N. Y. Spring-coupler for vehicles .....	381,900	May 1	5	2	43	515
Bacon, John H., Henier, N. Y. Hose-reel .....	376,572	Jan. 17	1195	316	42	244

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Bacon, Levi S., Washington, D. C., assignor to Eagle Pencil Company, New York, N. Y. Rubber-tip attachment for pencils						
Bacon, Robert A., New York, N. Y. Tooth-pick	379,844	Mar. 20	1464	387	42	1250
Bacon, Selah A., Damascus, Ohio. Device for watering poultry	380,739	Apr. 10	654	181	43	140
Bacon, Sherman B., Waterbury, Conn. Cuff-holder	386,865	July 31	2287	601	44	476
Badger, Frank O., Brooklyn, N. Y. Spring bed-bottom	386,101	July 10	1133	301	44	229
Badger, William E., Quincy, Mass. Machine for cutting wire into sections	377,419	Feb. 7	113	24	42	516
Badische Anilin und Soda Fabrik. (See Bohn, René, assignor.)	394,950	Dec. 25	1897	491	45	1465
Badische Anilin und Soda Fabrik. (See Ceresole, Maurice, assignor.)						
Badische Anilin und Soda Fabrik. (See Witt, Otto N., assignor.)						
Badische Maschinen und Eisengiesserei, vormals G. Sebold and Sebold and Neff. (See Penkert, Karl, assignor.)						
Baermann, Jacob B., New York, N. Y. Fan	382,205	May 1	479	123	43	601
Baethig, Henry. (See Hager, Charles, assignor.)						
Baethig, Henry, <i>et al.</i> (See Hager, Charles, assignor.)						
Bagaley, Ralph, Pittsburg, Pa. Machine for truing car-wheels	377,224	Jan. 31	2172	573	42	447
Bagaley, Ralph, Pittsburg, Pa. Machine for determining and adjusting the balance of wheels or other bodies	385,833	July 10	747	195	41	152
Bagaley, Ralph, Pittsburg, Pa. Testing-machine	390,550	Oct. 2	501	131	45	101
Bagaley, Ralph, and W. Hainsworth, Pittsburg, Pa. Machine for rolling car-wheels	379,754	Mar. 20	1307	349	42	1230
Bagger, Louis. (See Elliott, Robert M., assignor.)	389,787	Sept. 18	1499	395	44	1373
Baggerly, Peter, Clyde, N. Y. Eye, face, and lung protector	387,843	Aug. 14	969	252	44	765
Bagley, Frank A., assignor to himself and T. McCulla, Cherokee, Iowa. Feed-gage for platen printing-machines	380,240	Mar. 27	2045	546	42	1383
Bagley, Frank A., assignor to himself and T. McCulla, Cherokee, Iowa. Feed-gage for platen printing-machines	387,033	July 31	2524	663	44	523
Bagley, Olin H., Knappa, Oreg. Gold-saving apparatus	394,636	Dec. 18	1369	378	45	1353
Bagley, Orlando J., Great Falls, N. H. Ash-sifter	387,034	July 31	2525	664	44	523
Bagley & Sewall Company. (See Campbell, Charles H., assignor.)						
Bahr, John F., Jersey City, N. J. Telephone-transmitter	377,475	Feb. 7	191	45	42	532
Baier, Adolph G. (See Schuman and Baier.)						
Baile, Robert, Philadelphia, Pa. Pipe-damper	393,498	Nov. 27	1940	508	45	995
Bailey, Arthur H., Watertown, Mass. Making clam extracts	394,808	Dec. 18	1655	45	1411	
Bailey, Arthur H., Newton, Mass. Clam extract	395,199	Dec. 25	2290	45	1538	
Bailey, Charles A., Middletown, Conn. Toy money-box	385,225	June 26	2072	531	43	1546
Bailey, Charles G. (See Butcher and Bailey.)						
Bailey, Charles J., Newton, Mass. Eraser	392,253	Nov. 6	113	29	45	616
Bailey, Chester, Janesville, Wis. Tension device for the warp-beam of looms	378,567	Feb. 28	1833	423	42	877
Bailey, Cornelia A., administratrix. (See Durant and Bailey.)						
Bailey, Daniel A. B. (See Chase and Bailey.)						
Bailey, Daniel A. B., and N. McGillivray, Potsdam, N. Y. Apparatus for detecting leaks in soil and other pipes	386,446	July 24	1647	434	44	348
Bailey, Daniel A. B., and N. McGillivray, Potsdam, N. Y. Wrench	393,321	Nov. 20	1670	441	45	934
Bailey, Ellene A., New York, N. Y. Combined needle and cord	388,009	Aug. 21	1235	335	44	827
Bailey, Elmer E., West Everett, assignor of one-half to W. Sears, Malden, Mass. Automatic electric gas-burner	382,249	May 1	541	138	43	613
Bailey, Farrell & Company. (See Franklin, Edward A., assignor.)						
Bailey, Francis P., Indianapolis, Ind. Hinge	375,792	Jan. 3	95	28	42	23
Bailey, Fred C., Rib Lake, Wis. Car-coupling	376,131	Jan. 10	578	155	42	121
Bailey, Fred E., assignor of one-half to E. L. Burrows, Manchester, N. H. Garment-stretcher	381,204	Apr. 17	1370	366	43	282
Bailey, George W., and G. R. Leichersperger, Saegertown, Pa. Motor	385,588	July 3	383	99	44	76
Bailey, Gurdon B., Council Bluffs, Iowa, assignor of two-thirds to W. O'Donoghue, St. Joseph, Mo. Grain-separator	383,166	May 22	1926	503	43	910
Bailey, Henry, New York, N. Y. Vending apparatus	394,904	Dec. 18	1826	473	45	1442
Bailey, Henry C., <i>et al.</i> (See Fee, William R., assignor.)						
Bailey, Henry L. (See Durant and Bailey.)						
Bailey, Howard S. (See Valentine and Bailey.)						
Bailey, Howard S., Denver, Colo. Vehicle-wheel	380,012	Mar. 27	1728	464	42	1320
Bailey, Howard S., Denver, Colo. Rew-checking corn-planter	393,531	Nov. 27	1994	521	45	1007
Bailey, James D., Utica, N. Y. Three-way split switch	384,304	June 12	695	185	43	1263
Bailey, James G., New Glasgow, Nova Scotia, Canada. Harrow	394,809	Dec. 18	1655	433	45	1411
Bailey, Jane C., administratrix. (See Bailey, John A.)						
Bailey, John A., deceased; J. C. Bailey, administratrix, assignor of one-half to J. H. Jacobs, Marquette, Mich. Machinery for sawing stone	393,201	Nov. 20	1493	390	45	899
Bailey, John W. (See Hoocy and Bailey.)						
Bailey, Joseph R., Brooklyn, N. Y. Chisel	376,276	Jan. 10	779	207	42	159
Bailey, Joseph R., Brooklyn, N. Y. Drawing-knife	376,277	Jan. 10	780	207	42	160
Bailey, Justus W., Mansfield, Pa. Device for making post-holes	382,853	May 15	1446	380	43	808
Bailey, Leonard, Hartford, Conn. Printing-ink	375,720	Jan. 3	1	42	3	
Bailey, Luther B., London, Ontario, Canada. Oil-cup	394,551	Dec. 18	1216	318	45	1325
Bailey, Mark, and J. Warner, London, England. Flexible scaled cell for secondary batteries	395,028	Dec. 25	2016	520	45	1488
Bailey, Pryce W., Seneca Falls, N. Y. Hydrant	388,010	Aug. 21	1237	336	44	827
Bailey, Robert M., Williamsport, Pa., assignor to American Bell Telephone Company, Boston, Mass. Telephonic circuit	392,301	Nov. 6	175	46	45	627
Bailey, Samuel R., Amesbury, Mass. Sleigh	379,303	Mar. 13	640	174	42	1092
Bailey, Samuel R., Amesbury, Mass. Shifting-pole coupling	386,373	July 17	1524	403	44	312
Bailey, Squire L., Lowell, Mass. Fluid-conduit	388,616	Aug. 28	2173	581	44	1011
Bailey, Theodore P., <i>et al.</i> (See Martin, John F., assignor.)						
Bailey, Wilber N., Bay City, Mich. Trace-fastening	380,160	Mar. 27	1934	516	42	1360
Bailey, William, <i>et al.</i> (See Grant, Albert E., assignor.)						
Bailey, William C., Chicago, Ill. Bed-bottom	382,401	May 8	787	200	43	669
Bailey, William H. (See Newton and Bailey.)						
Baillie, Edwin. (See Baillie, John, assignor.)						
Baillie, John, assignor to E. Baillie, Salem, Ohio. Wood-planing machine	387,757	Aug. 14	845	218	44	740
Baillie, Robert, London Yard, Isle of Dogs, county of Middlesex, England. Corrugated plate	390,941	Oct. 9	1010	275	45	211
Bailor, Silas I. (See Yates and Bailor.)						
Baily, Elisha W. (See Huey and Baily.)						
Baily, Robert M., Jr., Paddington, county of Middlesex, England. Valve-gear	386,284	July 17	1407	371	44	288

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Baily, Robert M., Jr., Paddington, county of Middlesex, England. Valve-gear.....	376,285	July 17	1409	{ 371 372 }	{ 44 }	289
Bain, Robert E. M., assignor of one-half to G. Staunton, St. Louis, Mo. Vise.....	376,623	Jan. 17	1288	339	42	261
Baines, Charles, Windsor, Ontario, Canada, assignor to W. Gray, Detroit, Mich. Railway-spike.....	381,229	June 12	581	139	43	1243
Baines, Hugh, Brooklyn, N. Y. Velocipede.....	390,641	Oct. 9	616	165	45	131
Bair, Joseph L., Philadelphia, Pa., assignor to J. J. White, New Lisbon, N. J. Hot-air engine.....	389,045	Sept. 4	346	91	44	1138
Bair, Michael M., Paris, France. Reverberatory furnace.....	393,091	Nov. 20	1339	319	45	868
Baird, George D., Amboy, Ill. Combined plow and pulverizer.....	384,110	June 5	387	109	43	1195
Baird, John E. (See Babcock and Baird.).....						
Baird, Samuel P., St. Louis, Mo. Pneumatic grip.....	385,989	July 10	968	258	44	198
Baird, William J., assignor of one-half to C. H. Kay, Springfield, Ohio. Coasting-sled.....	375,911	Jan. 3	219	68	42	52
Bairstow, John. (See Doyle, Frank, assignor.).....						
Baittinger, Charles L., Philadelphia, Pa., assignor of one-half to J. H. Baittinger, Camden, N. J. Car-coupling.....	381,554	June 12	1067	278	43	1331
Baittinger, J. Harry. (See Baittinger, Charles L., assignor.).....						
Baker, Abner D., and F. P. Huyck, Swanton, assignor of one-third to A. E. Roberts, Norwalk, Ohio. Concentric-piston steam-engine.....	383,609	May 29	2581	{ 681 685 }	{ 43 }	1011
Baker, Albert P., Thawville, Ill. Napkin-holder.....	383,847	June 5	2	1	43	1121
Baker, Albert R. (See Brown, John F., assignor.).....						
Baker, Alfred M. (See McKenna and Baker.).....						
Baker, Azariah, Bloomington, Ill. Dumping-platform.....	387,334	Aug. 7	201	53	44	610
Baker, Charles F., Minneapolis, Minn. Scale-preventer for boilers.....	382,748	May 15	1309	341	43	780
Baker, Charles F., Minneapolis, Minn. Oil-filter.....	392,092	Oct. 30	2715	738	45	564
Baker, Charles S. (See Douglas, Charles H., assignor.).....						
Baker, Charles W., Waverley, Mich. Hay-binder.....	379,555	Mar. 20	1013	271	42	1173
Baker, D. A., et al. (See Russell, Horace, assignor.).....						
Baker, Daniel W., Boston, Mass. Vest.....	391,768	Oct. 23	2207	596	45	454
Baker, David, Freeport, Pa. Car-coupling.....	376,700	Jan. 17	1408	370	42	23
Baker, Edward E., Morgantown, W. Va., assignor to Globe Company, Cincinnati, Ohio. File-box.....	378,062	Feb. 14	1075	282	42	717
Baker, Elijah E., Cambridgeport, Mass. Car-brake.....	381,978	May 1	147	30	43	538
Baker, Elmer C., Newport, N. H. Goblet-holder.....	383,092	May 22	1827	479	43	891
Baker, Frank A. (See McErlain, John J., assignor.).....						
Baker, George C., Des Moines, Iowa. Railway-track.....	376,132	Jan. 10	580	155	42	122
Baker, George H., Rome, N. Y. Baby-carriage.....	381,494	June 12	969	253	43	1313
Baker, George W., St. Louis, Mo. Wheel.....	391,833	Oct. 30	2324	630	45	486
Baker, George W., Wilmington, Del. Leather-staking machine.....	394,750	Dec. 18	1551	{ 405 406 }	{ 45 }	1390
Baker, George W., assignor to White Sewing Machine Company, Cleveland, Ohio. Shuttle for sewing-machines.....	393,738	Dec. 4	4	2	45	1074
Baker, Halsey H., assignor to E. A. Deveau, Plainfield, N. J. Propelling canal-boats.....	380,781	Apr. 10	722	198	43	152
Baker, Harry G. (See Barrett and Baker.).....						
Baker Heater Company. (See Baker, William C., assignor.).....						
Baker, Henry B., assignor of one-half to W. B. Devore, Nelsonville, Ohio. Nut-lock.....	383,268	May 22	2080	546	43	940
Baker, Herschel B., Plainville, Conn. Coat and hat hook.....	394,637	Dec. 18	1370	358	45	1353
Baker, Jacob M., Boston, Mass. Embossing-machine.....	389,940	Sept. 25	1749	463	44	1429
Baker, James H., Kendallville, Ind. Back-gear for turning-lathes.....	389,431	Sept. 11	956	250	44	1263
Baker, John H., Aurelius, N. Y. Nail-holding attachment for hammers.....	378,946	Mar. 6	121	35	42	990
Baker, John W., Philadelphia, Pa. Gas-lamp.....	385,785	July 10	678	177	44	140
Baker, John W., Philadelphia, Pa. Regenerative gas-burner.....	387,844	Aug. 14	969	252	44	766
Baker, Martin C. (See Johns, Baker, and Everett.).....						
Baker, Martin L., Wilton Junction, Iowa. Gate.....	386,230	July 17	1331	351	41	274
Baker, Owen T., assignor to H. Schwartz, Fort Worth, Tex. Wagon-brake.....	389,899	Sept. 18	1555	{ 411 412 }	{ 44 }	1384
Baker, Seth L., Chicago, Ill. Automatic measuring-tank.....	389,132	Sept. 4	496	127	41	1165
Baker, Seward W., and P. Fritch, Oriskany, N. Y. Ice-cutting machine.....	393,807	Dec. 4	101	29	45	1092
Baker, Smith & Co. (See Bell, Alonzo, assignor.).....						
Baker, Stewart E., Binghamton, N. Y. Paper box or pail.....	377,977	Feb. 14	962	251	42	695
Baker, Theodore J., assignor of one-half to A. J. Stanchfield, Salt Lake City, Utah Ter. Fire-escape.....	394,149	Dec. 11	607	163	45	1197
Baker, Walter, Ilion, N. Y. Manufacture of type-bars.....	392,177	Nov. 6	4	2	45	595
Baker, Watorman S., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Straw-stacking machine.....	389,738	Sept. 18	1110	293	44	1298
Baker, William C., New York, N. Y., assignor to Baker Heater Company, of New York. Support for car-heater grates.....	380,544	Apr. 3	361	103	43	74
Baker, William H., Pontiac, Mich. Clevis and pin.....	389,493	Sept. 11	1047	270	44	1278
Baker, William N., Damascus, Ohio. Blacking-brush.....	383,684	May 29	2669	711	43	1065
Baker, William R., Chicago, Ill. Grain-binder.....	382,938	May 15	1565	409	43	831
Bakewell, Paul, assignor to Acme Roll Paper Company, St. Louis, Mo. Roll-paper holder and cutter.....	370,334	Oct. 2	189	51	45	41
Baldrige, George W., St. Louis, Mo. Type-writing machine.....	376,624	Jan. 17	1289	339	42	262
Baldwin, Aaron P., and T. L. Sedgwick, assignors to Akron Iron Company, Akron, Ohio. Machine for straightening and polishing metallic shafting.....	378,063	Feb. 14	1076	{ 282 283 }	{ 42 }	717
Baldwin, Aaron P., and R. Hadfield, assignors to Akron Iron Company, Akron, Ohio. Device for drawing wire rods.....	393,808	Dec. 4	105	29	45	1093
Baldwin, Charles P., Newark, N. J. Dwelling-house.....	392,093	Oct. 30	2717	738	45	564
Baldwin, Chester M., assignor of one-half to L. Zimmerman, Bronson, Mich. Nut-lock.....	388,332	Aug. 21	1763	471	41	926
Baldwin, Cyrus W., Yonkers, N. Y., assignor to Hydraulic Elevator Company, Chicago, Ill. Safety device for elevators.....	390,052	Sept. 25	1903	{ 502 503 }	{ 44 }	1460
Baldwin, Cyrus W., Yonkers, N. Y., assignor to Hydraulic Elevator Company, Chicago, Ill. Elevator.....	390,053	Sept. 25	1906	503	41	1460
Baldwin, Ferdinand, Troy, assignor of one-half to L. E. Marshall, Christiansburg, Ohio. Road-grader.....	390,150	Sept. 25	2049	{ 547 548 }	{ 41 }	1490
Baldwin, Henry D., Shullsburg, assignor of one-half to S. H. Seales, Lafayette County, Wis. Railway-switch.....	382,066	May 1	283	75	43	566
Baldwin, James, New York, N. Y. Lifting-jack.....	386,954	July 31	2414	634	44	401
Baldwin, John A. (See Struck, Charles E., assignor.).....						
Baldwin, John M. (See Edwards, George W., assignor.).....						
Baldwin, John W., assignor to G. A. Fullerton, Boston, Mass. Voltaic armor.....	389,187	Sept. 11	593	151	41	1191
Baldwin, Joseph F., Cambridge, Mass. Caterer's vehicle.....	377,594	Feb. 7	360	92, 93	42	564
Baldwin, Judson A., Winonski, assignor to Queen Ann Screen Company, Burlington, Vt. Window-screen.....	378,997	Mar. 6	204	75	{ 42 }	1005

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Baldwin, M. S., <i>et al.</i> (See Slagle, Oliver, assignor.)						
Baldwin, Myron T., La Grange, Ill. Air-heating device	379,755	Mar. 20	1309	349	42	1330
Baldwin, Philander. (See Gould and Baldwin.)						
Baldwin, Rollin A. (See Hardy and Baldwin.)						
Baldwin, Stephen W., Yonkers, N. Y. Metal-working rolling-mill	385,437	July 3	157	42, 43	44	32
Baldwin, Stephen W., Yonkers, N. Y. Jaw-spring for animal-traps	393,809	Dec. 4	105	30	45	1093
Baldwin, William, Cuyler, N. Y. Wash-bench and wringer-holder	391,933	Oct. 30	2467	667	45	515
Baldwin, William A., Chicago, Ill., assignor to Aluminum Process Company, Washington, D. C. Making aluminum alloys	394,091	Dec. 4	520		45	1171
Baldwin, William A., Chicago, Ill., assignor of one-fourth to A. A. Thomas, J. C. Smith, and J. J. Sheehy, Washington, D. C. Combining metals with aluminum	378,278	Feb. 21	1413		42	786
Baldwin, William A., Chicago, Ill., assignor of one-fourth to A. A. Thomas, J. C. Smith, and J. J. Sheehy, Washington, D. C. Treatment of metals	379,438	Mar. 13	833		42	1131
Baldwin, William A., Chicago, Ill., assignor of one-fourth to J. C. Smith, J. J. Sheehy, and A. A. Thomas, Washington, D. C. Bath for extracting aluminum and alloying it with other metals	380,161	Mar. 27	1935		42	1361
Baldwin, William D., administrator. (See Hoyle, William J.)						
Baldwin, William D., <i>et al.</i> (See Severance, James R., assignor.)						
Baldwin, William J., New York, N. Y. Steam-radiator	393,287	Nov. 20	1624	436	45	925
Bales, Alanson H., Washington, Kans. Draft-equalizer	377,978	Feb. 14	963	251	42	696
Bales, Henry, <i>et al.</i> (See Griffin, Theophilus, assignor.)						
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Crushing and grinding machine	386,286	July 17	1410	372	44	289
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Gang-drill rock-channeling machine	392,398	Nov. 6	332	82	45	656
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Gang-drill rock-channeling machine	392,399	Nov. 6	334	82, 83	45	657
Ball and Socket Fastener Company. (See Richardson, William S., assignor.)						
Ball and Socket Fastener Company. (See Richardson and Chase, assignors.)						
Ball and Socket Fastener Company. (See Shorey and Richardson, assignors.)						
Ball, Calvin S., Syracuse, N. Y. Eyeglass-holder	376,847	Jan. 24	1647	431	42	336
Ball, Cortland, assignor of one-half to J. V. Wood, Indianapolis, Ind. Crude oil burner	389,046	Sept. 4	348	92	44	1139
Ball, Dayton, Albany, N. Y. Last	381,098	Apr. 17	1226	329	43	255
Ball, Edmund B., Buffalo, N. Y. Grinding-machine	387,482	Aug. 7	413	108 109	44	653
Ball, Edward M., North Coaticook, Quebec, Canada. Wire clothes-pin	380,013	Mar. 27	1731	465	42	1321
Ball, Edwin B. (See Davis, William C., assignor.)						
Ball, Jacob. (See Kelley and Ball.)						
Ball, James P., Philadelphia, Pa. Nut-lock	383,685	May 29	2691	711	43	1065
Ball, Joseph J., and J. A. McBride, Syracuse, Ohio. Transom-lifter	386,794	July 31	2155	567	44	453
Ball, Lorenzo D., and J. T. Bender, Canton, Ohio. Plow	384,952	June 26	1658	431	43	1461
Ball, Phineas, Worcester, Mass. Rotary water-meter	386,795	July 31	2156	567	44	453
Ball, Samuel E., Dayton, Ohio. Confectioner's mold	382,678	May 15	1218	316	43	761
Ball, Thomas H., <i>et al.</i> (See Gardner, Marshall, assignor.)						
Ballard, Henry C., Red Oak, Iowa. Steam cooking apparatus	378,947	Mar. 6	122	35	42	990
Ballard, James W., and H. L. Fisher, Toledo, Iowa. Scales for weighing railway-cars	384,495	June 12	970	253	43	1313
Ballard, Jordan W., Wilmington, Ohio. Steam-washer	382,389	May 8	615	157	43	637
Ballard, Samuel R., assignor of one-half to G. V. Marshall, Pittsburg, Pa. Telephone-conveyer	383,369	May 22	2081	547	43	940
Ballew, Richard J., assignor of one-third to S. Stevens and J. W. Hall, Magalia, Cal. Pawl-and-ratchet mechanism	376,467	Jan. 17	1052	275	42	216
Ballinger, M. A. (See Durand, Arthur, assignor.)						
Ballman, William, assignor of one-half to J. T. Kiehn, Philadelphia, Pa. Car-ventilator	375,721	Jan. 3	1	1	42	3
Ballou, Barton A., Providence, R. I. Manufacture of safety-pins	380,380	Apr. 3	115	33	43	25
Ballou, Barton A., Providence, R. I. Ear-wire	389,530	Sept. 18	1557	412	44	1384
Ballou, Barton A., Providence, R. I. Pin	392,302	Nov. 6	179	46	45	627
Bally, Julius H., Paradise Hill, Ohio. Horse hay-rake	382,067	May 1	284	75	43	566
Baloun, Ignatius, Canton, Ohio. Pencil-sharpener	380,417	Apr. 3	160	45	43	33
Balsbaugh, Henry C., Harrisburg, Pa. Surface-gage	380,740	Apr. 10	655	181	43	140
Balsbaugh, Henry C., Harrisburg, Pa. Slip and shrinkage gage	382,854	May 15	1447	381	43	808
Balsley, Upton H., Philadelphia, Pa. Telephone apparatus	394,951	Dec. 25	1898	492	45	1465
Balston, Oscar F., Brooklyn, N. Y. Draw-bridge	376,225	Jan. 10	713	189 190	42	146
Baltes, Frank W., Portland, Oreg. Receiving-table for cylinder printing-presses	382,402	May 8	789	200	43	669
Baltes, Michael, Pleasant Prairie, Wis. Wagon-spring	382,290	May 8	617	157	43	637
Baltzley, Edwin, Philadelphia, Pa. Combined ruler, blotter, and paper-cutter	375,722	Jan. 3	2	1	42	3
Baltzley, Edwin, Philadelphia, Pa. Grater	378,127	Feb. 21	1171	305	42	743
Baltzley, Edwin, Philadelphia, Pa. Culinary beater	378,863	Mar. 6	4	2	42	968
Baltzley, Edwin, Philadelphia, Pa. Lemon-juice extractor	387,942	Aug. 14	1132	303	44	798
Baltzley, Edwin, Philadelphia, Pa. Egg-beater	389,631	Sept. 18	1265	332	44	1325
Baltzley, Henry H., assignor of three-fourths to D. J. Watson, J. R. Milligan, and P. L. Meyers, Assumption, Ill. Drain-tile	385,292	June 26	2192	560	43	1569
Bancroft, Frederick L., St. Paul, Minn. Calculating-machine	377,823	Feb. 14	740	187	42	650
Bancroft, John. (See Bloede, Victor G., assignor.)						
Bancroft, John. (See Bloede and Bancroft.)						
Bancroft, Samuel P. (See Sargent, Chase, and Cram, assignors.)						
Bancroft, William, assignor of one-half to Hopedale Machine Company, Hopedale, Mass. Warming-machine	377,659	Feb. 7	468	119	42	583
Bancroft, William, assignor of one-half to Hopedale Machine Company, Hopedale, Mass. Warming-machine	380,642	Apr. 3	498	139	43	102
Bancroft, William F., and H. A. Stone, Worcester, Mass.; said Stone assignor of one-half to said Bancroft. Wire-nail machine	382,632	May 8	1144	294 295	43	738
Banca, B. F. (See Leforestier, Alexandre, assignor.)						
Banfield, Jose A. (See Sharpe, John, assignor.)						
Bangs, Ebner, Cortland, N. Y. Coffin	378,076	Feb. 21	1100	288	42	730
Banister, Robert B. (See Wilde, John, assignor.)						
Banker, George W., Brooklyn, N. Y. Covered demijohn	385,438	July 3	160	44	44	33
Banker, William H. (See Lee, George W., assignor.)						
Banks, Ann E., Bland Court-House, Va. Liniment	377,979	Feb. 14	964		42	696
Banks, Daniel B., and G. K. Hutchins, Baltimore, Md. Supporting-arm for electric lights	375,977	Jan. 3	344	92	42	70
Banks, Lyman, Muscatine, Iowa. Paper-file holder	379,846	Mar. 20	1466	387	42	1259
Banks, Lyman, Muscatine, Iowa. Bracing, attaching, and detaching cot-legs or other articles of like construction	389,733	Sept. 18	1429	373	44	1358
Bannatyne, Archibald, Waterbury, Conn. Clock-dial	385,160	June 26	1920	507	43	1537

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Banning, Joseph O., Plainville, Conn., assignor, by mesne assignments, to Eddison Fire Extinguisher Company, Philadelphia, Pa. Fire-extinguisher.	379,756	Mar. 20	1314	350	42	1230
Bansen, Wilhelm, Kattowitz, Prussia, Germany. Machine for bundling hoop-iron.	383,686	May 29	2991	711	43	1065
Bansen, Wilhelm, Kattowitz, Silesia, Prussia, Germany. Rolling-train.	388,389	Aug. 28	1858	495 496	44	949
Banta, Charles W. (See Banta, Henry L. and C. W.)						
Banta, Henry L. and C. W., Canon City, Colo. Car-coupling.	392,303	Nov. 6	189	46	45	628
Banyer, Abraham, and J. A. Printz, Springfield, Ohio. Combined window sash and shade.	391,328	Dec. 11	887	234	45	1251
Baoyerlin, Emile K., assignor of one-half to C. Scheik, Louisville, Ky. Heater.	395,206	Dec. 25	2291	588	45	1538
Bapst, Germain, and L. Falize, Fils, Paris, France. Time-alarm.	384,412	June 12	859	223 224	43	1292
Baratet, Prosper A., Philadelphia, Pa. Corset.	383,687	May 29	2692	712	43	1065
Baratini, David, Murphy's, and W. P. Stevenson, Douglas Flat, Cal. Ore-pulverizer.	380,843	Apr. 10	808	220	43	168
Barber, Amos P., assignor of one-half to W. G. Rathbun, Rahway, N. J. Throw-off mechanism for job-printing presses.	376,059	Jan. 10	467	125	42	101
Barber, Amzi L., Washington, D. C. Concrete pavement.	391,222	Oct. 16	1161	45	298	
Barber, Arthur J., assignor to M. V. Teeter, Sodus, N. Y. Folding step for cars.	382,679	May 15	1219	316	43	761
Barber, Augustus M., and C. Gabriel, assignors of one-third to H. L. Brintnall, East Saginaw, Mich. Means for preventing the running off of belts.	395,201	Dec. 25	2292	588 589	45	1538
Barber, Charles E., and T. F. Finigan, Waterloo, assignors to C. J. Ryan, Flushing, N. Y., and J. B. McDonald, Baltimore, Md. Dumping-car.	387,618	Aug. 11	618	168	44	703
Barber, Edwin L., Henrietta, Tex., assignor of one-half to M. J. Amick, Washington, D. C. Combined or convertible tool.	393,988	Nov. 20	1625	426	45	926
Barber, Elijah W., and A. Osteuman, Brooklyn, N. Y.; said Barber assignor to said Osteuman. Folding stool.	394,325	Dec. 11	840	232	45	1219
Barber, Francis M., Washington, D. C. Coin-spinner.	393,512	May 29	2449	649	43	1014
Barber, Jeremiah A., Newville, Ind. Fence.	394,241	Dec. 11	752	198	45	1223
Barber, John C., St. Paul, Minn. Car-truck.	393,688	May 23	2093	712	43	1066
Barber, Michael A., Norwiche, Conn., A. Wiggin, and W. Soar, assignors to J. W. Free, Boston, Mass. Malt growing and drying apparatus.	393,202	Nov. 20	1194	390 391	45	899
Barber, William M., Fitchburg, Mass. Water-heater.	393,878	Dec. 4	216	58	45	1113
Barens, William W. (See Braund, John T., assignor.)						
Bard, Cephas L., San Buenaventura, Cal. Tape-measure.	393,603	Nov. 27	2098	519	45	1028
Bard, George P. (See Ives, William W., assignor.)						
Bardeen, Edwin R., assignor to himself and H. M. Bardeen, Aiken, S. C. Tobacco-curing apparatus.	393,532	Nov. 27	1999	523	45	1008
Bardeen, Harold M. (See Bardeen, Edwin R., assignor.)						
Barden, John S., Warren, R. I. Rotary-cylinder engine.	385,226	June 26	2073	531	43	1546
Bardonnier, Philipp. (See Riser and Bardonnier.)						
Bardsley, Adam. (See McNaughton and Bardsley.)						
Bardsley, Henry, Philadelphia, Pa. Loom-shuttle.	393,958	Dec. 4	328	89	45	1135
Bardsley, Henry, assignor of one-half to W. Bardsley, Fitchburg, Mass. Shuttle-binder for looms.	385,338	July 3	3	1	44	3
Bardsley, James, Terre Haute, Ind. Rivet-holding device.	379,204	Mar. 13	501	141	42	1067
Bardsley, William. (See Bardsley, Henry, assignor.)						
Bardsley, William. (See Crofford, Warren K., assignor.)						
Bardwell, Anderson & Co. (See Vornbrock, Frederick, assignor.)						
Bardwell, Everett J. (See Clark, Merrill E., assignor.)						
Bardwell, Herbert T., Springfield, Mass. Vertical spinning-mule.	384,496	June 12	972	253 254 255 256 257 258	43	1314
Bargdill, Charles C., Rosedale, Ohio. Fence.	383,335	May 22	2165	572	43	955
Barge, George H., assignor to W. Wharton, Jr., and Company, Philadelphia, Pa. Rail-fastening.	388,241	Aug. 21	1611	431	44	897
Baretz, Karl G., McFarland, Wis. Band cutter and feeder.	379,355	Mar. 13	707	192	42	1106
Barette, Amédée A. (See Barette, Pierre F. C. and A. A.)						
Barette, Pierre F. C. and A. A., Romilly-sur-Audelle, France. Cloth-fuller.	395,202	Dec. 25	2291	589	45	1539
Barfield, Columbus R., Valdosta, Ga. Adjustable plow-bar.	376,226	Jan. 10	714	190	42	147
Barger, John W. (See Winger and Barger.)						
Barger, William H., Barger's Springs, W. Va. Device for feeding salt to live stock.	376,360	Jan. 10	895	235	42	180
Barhydt, Frank, Schenectady, N. Y. Metallic railway-tie.	382,855	May 15	1448	381	43	808
Barker, Albert A., and W. Bennett, Worcester, Mass. Door-hanger.	379,205	Mar. 13	502	141 142	42	1067
Barker, Amos, Spencer, Ind. Seed-planter.	378,077	Feb. 21	1101	288	42	730
Barker, Edgar E., Junction City, Kans. Metallic shingle.	381,318	Apr. 17	1531	413	43	315
Barker, Irving, Braidwood, Ill. Boiler-flue cleaner.	393,810	Dec. 4	107	30	45	1093
Barker, Jedduthen P., assignor to G. H. Winaus and A. L. Pratt, Kalamazoo, Mich. Two-wheeled vehicle.	394,751	Dec. 18	1553	406	45	1391
Barker, Lucien B. (See Smith and Barker.)						
Barker, Oscar P., Peoria, Ill. Thill-coupling.	388,521	Aug. 28	2031	547	44	984
Barker, Thomas, Todmorden, county of Lancaster, England. Sock or insole for boots or shoes.	387,335	Aug. 7	202	53	44	610
Barker, Thomas L., and J. C. Hornbaker, Westfield, Ind. Washing-machine.	393,092	Nov. 20	1310	350	45	868
Barker, William C., Watkins, N. Y. Fire-escape.	376,505	Jan. 17	1107	290	42	227
Barley, James H., Sedalia, Mo. Harrow. (Reissue.)	10,913	Mar. 27	2125	563	42	1400
Barley, James H., Sedalia, Mo. Harrow.	387,202	Aug. 7	6	2	44	574
Barley, James H. and T. K., Sedalia, Mo. Harrow.	389,188	Sept. 11	594	152	44	1191
Barley, Thomas K. (See Barley, James H. and T. K.)						
Barlow, Howard J., et al. (See Bartlett, Thomas J., assignor.)						
Barlow, Joseph C., Quincy, Ill. Corn-planter.	378,279	Feb. 21	1114	369 370	42	786
Barlow, Joseph C., Quincy, Ill. Covering-shovel for planters.	387,483	Aug. 7	414	109	41	653
Barlow, Peter T. (See Hale, James E., assignor.)						
Barnard, Gates H., New York, N. Y. Apparel-collar.	388,011	Aug. 21	1239	336	44	828
Barnard, George, assignor to A. G. Spalding & Brothers, Chicago, Ill. Base-ball mask.	376,278	Jan. 10	781	207	42	160
Barnard, George D., St. Louis, Mo. Book.	390,197	Oct. 2	3	1	45	3
Barnard, George D., St. Louis, Mo. Book.	392,840	Nov. 13	986	253	45	792
Barnard, George D., and E. Knapp, St. Louis, Mo. Ruling-machine.	384,497	June 12	992	258	43	1317
Barnard, Heman A., assignor to Barnard & Leas Manufacturing Company, Moline, Ill. Roller-mill.	376,023	Jan. 3	415	119	42	83
Barnard, Heman A., assignor to Barnard & Leas Manufacturing Company, Moline, Ill. Feed-regulator.	379,193	Mar. 6	468	132 133	42	1255



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Des.	Vol.	Page.
Barnard, Heman A., assignor to Barnard & Leas Manufacturing Company, Moline, Ill. Roller-mill.....	382,583	May 8	1076	{ 276 277 }	43	725
Barnard & Leas Manufacturing Company. (See Barnard, Heman A., assignor.)						
Barnard, Mary N., administratrix. (See Barnard, William S.)						
Barnard, William S., deceased, M. N. Barnard, Canton, Ill., administratrix. Letter-file.....	384,601	June 19	1141	301	43	1353
Barnard, William T., Baltimore, Md. Telegraph-receiver.....	388,333	Aug. 21	1764	471	44	926
Barnes, Albert N., Gouverneur, N. Y. Outrigger.....	392,901	Nov. 13	1066	276	45	809
Barnes, Ames, assignor of one-half to R. Le Baron, Pontiac, Mich. Semaphore signaling apparatus.....	375,227	June 26	2074	531	43	1547
Barnes, Ann L., administratrix. (See Barnes, Henry.)						
Barnes, Benjamin F., assignor to W. F. & John Barnes Company, Rockford, Ill. Feed device for drilling-machines.....	379,194	Mar. 6	470	133	42	1056
Barnes, Frank O. (See Bowling and Barnes.)						
Barnes, Henry, deceased, Hyde Park; A. L. Barnes, Orange, Mass., administratrix. Friction-clutch.....	386,287	July 17	1412	373	44	290
Barnes, John H., and S. C. Keith, Greencastle, Ind. Whiffletree-hook.....	389,432	Sept. 11	958	250	44	1263
Barnes, Lewis, Bloomsbury, N. J. Bridge.....	392,094	Oct. 30	2718	738	45	564
Barnes Manufacturing Company. (See Woolaston, Joseph H., assignor.)						
Barnes, Nelson C., Mullinville, Kans. Sully attachment for plows.....	376,176	Jan. 10	643	172	42	134
Barnes, Philo M., Lockport, N. Y. Buggy-boot.....	391,009	Oct. 16	1158	307	45	239
Barnes, Simon H., Lanesborough, Pa. Shaft-coupling.....	384,012	June 5	253	72	43	1170
Barnes, Thomas H. (See Shotton and Barnes.)						
Barnes, Thomas W., Vassar, assignor of one-half to J. G. Trump and L. Schnell, Richville, Mich. Spark-extinguisher and smoke-purifier.....	389,916	Sept. 25	1710	453	44	1421
Barnes, William A., Bridgeport, Conn. Conductor for electrical fire-alarm systems.....	378,078	Feb. 21	1101	288	42	730
Barnes, William A., Bridgeport, Conn. Fire and burglar alarm system.....	380,241	Mar. 27	2016	547	42	1384
Barnes, William A., Bridgeport, Conn. Fire-alarm annunciator.....	395,111	Dec. 25	2144	{ 553 554 }	45	1514
Barnes, William A., Bridgeport, Conn. Electrical alarm.....	395,112	Dec. 25	2149	{ 554 555 }	45	1514
Barnes, William G., Amsterdam, N. Y. Nail-case.....	386,681	July 24	1981	523	44	412
Barnes, William J., Oshkosh, Wis. Letter-copying press.....	392,486	Nov. 6	456	114	45	681
Barnes, William O., Paterson, N. J. Snow-excavator.....	384,602	June 19	1142	302	43	1353
Barnesley, Nelson, Estom, Mo. Churn.....	376,625	Jan. 17	1291	340	42	262
Barnett, George, et al. (See Gosling, Henry J., assignor.)						
Barnett, Henry, et al. (See Gosling, Henry J., assignor.)						
Barnett & Record. (See Tromanbauer, Jesse H., assignor.)						
Barnett, Samuel M., New York, N. Y. Exercising-machine.....	385,901	July 10	861	227	44	176
Barnett, William. (See Frisbie, Henry R., assignor.)						
Barney, Everett H., Springfield, Mass. Skate-fastening.....	377,734	Feb. 14	579	149	42	619
Barney, Everett H., Springfield, Mass. Skate.....	378,424	Feb. 28	1621	426	42	834
Barney, Everett H., Springfield, Mass. Skate-runner blank.....	378,488	Feb. 28	1718	454	42	855
Barney, Frank P., assignor to Engley, Wetherell & Co., Chantley, Mass. Button.....	381,319	Apr. 17	1532	413	43	315
Barney, Frank S. (See Mortz, Joseph, assignor.)						
Barney, R. Lester. (See Barney, Valentine G. and R. L.)						
Barney, Richard W. (See Woodard, Alonzo B., assignor.)						
Barney, Valentine G., Charles City, Iowa. Stone-sawing machine.....	377,600	Feb. 7	469	120	42	583
Barney, Valentine G., Charles City, Iowa, and R. L. Barney, Swanton, Vt. Stone-sawing machine.....	377,595	Feb. 7	362	93	42	564
Barney, William C., assignor to J. C. Reiff, New York, N. Y. Pneumatic intermittent circuit-closer.....	388,242	Aug. 21	1612	{ 411 432 }	44	897
Barnhard, David H. (See Barnhard, John W. and D. H.)						
Barnhard, John W. and D. H., New Albany, assignors of one-half to E. E. Anderson, Harlem, Ohio. Gato.....	380,418	Apr. 3	160	45	43	331
Barnhart, Daniel K., Gaines, Pa. Clothes-rack.....	387,758	Aug. 14	847	218	44	741
Barnhart, Henry M., Marion, Ohio. Car-unloader.....	384,111	June 5	388	109	43	1195
Barnhart, William H., Indianapolis, Ind. Hub-boring machine.....	383,448	June 5	2	1	43	1121
Barnhurst, H. R. (See Ross, Samuel A., assignor.)						
Barnhurst, Henry R., Erie, Pa. Band-saw mill.....	381,112	June 5	370	110	43	1195
Barnhurst, Henry R., Erie, Pa. Spacing-machine.....	392,254	Nov. 6	114	29	45	616
Barnhurst, James I. (See Rietschy, Charles T., assignor.)						
Barns, Hosea, Kenosha, Wis. Extension-ladder.....	376,794	Jan. 24	1563	410	42	322
Barns, John, assignor of one-half to L. C. Tower, Rochester, N. Y. Anti-friction roller for drawers.....	383,689	May 29	2695	712	43	1066
Barnum, Ashbell, Green Island, N. Y. Folding center-board.....	377,134	Jan. 31	2047	536	42	422
Barnum, George F., Wilson, N. Y. Holdback for vehicles.....	391,676	Oct. 23	2083	561	45	429
Barnum, Theodore F. (See McDermott, John, assignor.)						
Barr, Horatio, Detroit, Mich. Feeding air to furnaces.....	390,198	Oct. 2	3	1	45	3
Barr, Jacob H., Mansfield, Ohio. Sully-plow.....	387,484	Aug. 7	416	109	44	654
Barr, James M., Forest House, Pa. Tongue-support.....	394,752	Dec. 18	1554	406	45	1391
Barr, John C., Bismark, Dak. Ter. Permutation-lock.....	385,228	June 26	2076	{ 531 532 }	43	1547
Barr, M. D. (See Milne, James, assignor.)						
Barr, Nicholas, Cayuta, N. Y. Car-coupling.....	387,485	Aug. 7	417	{ 109 110 }	44	654
Barr, Orlando S. (See Canney, Walter S., assignor.)						
Barr, Pinckney F., St. Paul, Minn. Cable railway.....	386,178	July 17	1212	331	44	259
Barr, Samuel, McCausland, Iowa. Pump-rod attachment.....	377,225	Jan. 31	2173	573	42	447
Barr, Samuel, McCausland, Iowa. Plow.....	377,226	Jan. 31	2174	574	42	448
Barr, Samuel W., Mansfield, Ohio. Cash and package carrier.....	383,937	June 5	144	42, 43	43	1148
Barr, Samuel W., Mansfield, Ohio. Cash and parcel carrying apparatus.....	384,113	June 5	391	110	43	1196
Barr, Samuel W., Mansfield, Ohio. Cash-carrier.....	394,326	Dec. 11	881	{ 232 233 }	45	1249
Barr, William N., Louisville, Ky. Box-fastener.....	386,912	July 31	2357	619	44	489
Barracough, Robert W. S., Heron Hill, county of Surrey, England. Suspension-hook.....	375,978	Jan. 3	346	93	42	70
Barrath, Edward, assignor to V. E. Knecht, Cincinnati, Ohio. Manufacturing coal-hods.....	377,705	Feb. 7	533	{ 136 137 }	42	505
Barrath, Edward, assignor to V. E. Knecht, Cincinnati, Ohio. Die-press for forming coal-hods.....	378,755	Feb. 28	2091	{ 551 552 }	42	926
Barrath, Edward, assignor to V. E. Knecht, Cincinnati, Ohio. Die for coal-hods.....	378,755	Feb. 28	2095	552	42	927
Barrath, Edward, assignor to V. E. Knecht, Cincinnati, Ohio. Coal-hod.....	382,939	May 15	1567	409	43	832
Barret, John R., assignor to A. B. Field, trustee, New York, N. Y. Preparing food for animals.....	394,431	Dec. 11	1033	271	45	1277



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Barrett, Albert. (See Hale, Barrett, and Zentner.)						
Barrett, Albert, and J. Zentner, Kansas City, Mo. Hotel signaling system.....	390,833	Oct. 9	887	236	45	181
Barrett, Charles L., Allegan, Mich. Road-cart.....	375,979	Jan. 3	347	93	42	70
Barrett, Charles L., Allegan, Mich. Road-cart.....	384,820	June 19	1470	384	43	1417
Barrett, Edward, assignor to G. R. Haddock, Fall River, Mass. Key-hole guard.....	395,259	Dec. 25	2391	612	45	1557
Barrett, Edward, and H. G. Baker, Fall River, Mass. Key-fastener.....	382,680	May 15	1222	316	43	762
Barrett, Frederick W., Springfield, Ohio. Temporary binder.....	385,339	July 3	3	2	44	3
Barrett, Henry, and J. J. Varley, London, England. Screw-stopper for bottles.....	380,782	Apr. 10	724	198	43	152
Barrett, Henry, and J. J. Varley, London, England. Manufacture of screw-stoppers.....	382,906	May 1	480	123	43	601
Barrett, Henry E., and J. J. Varley, London, England. Thimble for casings of screw-stop- pers.....	384,013	June 5	254	73	43	1170
Barrett, John A., Brooklyn, N. Y. Repeating induction-coil.....	382,856	May 15	1449	381	43	808
Barrett, John A., Brooklyn, N. Y., assignor to American Telephone and Telegraph Com- pany, of New York. Electric circuit.....	392,775	Nov. 13	891	228	45	773
Barrett, John P. (See Carroll, William, assignor.)						
Barrett, John P., Chicago, Ill. Fire-alarm circuit.....	376,133	Jan. 10	580	155	42	122
Barrett, John P., and J. F. Mehren, Chicago, Ill. Electrical heater.....	375,915	Jan. 3	251	68	42	53
Barrett, Lucius O., Brattleborough, Vt. Double gage.....	384,413	June 12	861	224	43	1292
Barrett, O., et al. (See Cleek, James D., assignor.)						
Barrett, Richard, Harrison, N. J. Hat-starting machine.....	383,270	May 22	2082	547	43	940
Barrett, Rockwood. (See Landon, Albert, assignor.)						
Barrett, Samuel D. (See Stafford and Barrett.)						
Barrett, Sidney H., Springfield, Mass. Pipe-coupling.....	387,336	Aug. 7	203	53, 54	44	610
Barrett, William N., Meadville, Pa. Corkscrew.....	385,534	July 10	750	196	44	153
Barrett, William N., Meadville, Pa. Corkscrew.....	388,945	Sept. 4	210	55	44	1112
Barri, Martin, Cambridge, Mass., assignor, by mesne assignments, to Meteor Despatch Company, Portland, Me. Pneumatic cash-carrier apparatus.....	394,552	Dec. 18	1217	318	45	1325
Barri, Martin, Cambridge, Mass., assignor, by mesne assignments, to Meteor Despatch Company, Portland, Me. Pneumatic cash-carrier apparatus.....	395,203	Dec. 25	2295	589	45	1539
Barri, Martin, Cambridge, Mass., assignor, by mesne assignments, to Meteor Despatch Company, Portland, Me. Pneumatic cash-carrier apparatus.....	395,204	Dec. 25	2297	589 590	45	1539
Barrie, Samuel S., Brooklyn, N. Y. Washing-machine.....	376,279	Jan. 10	782	207	42	160
Barrie, Samuel S., Brooklyn, N. Y. Band-pulley.....	380,077	Mar. 27	1826	485	42	1339
Barron, Walter J., New York, N. Y., assignor to A. Densmore, Meadville, Pa., and C. G. Patterson, New York, N. Y. Type-writing machine.....	376,701	Jan. 17	1409	370	42	283
Barron, Walter J., New York, N. Y., assignor of one-half to A. Densmore, Meadville, Pa. Type-writing machine.....	387,673	Aug. 14	723	185	44	718
Barrow, George, Skaneateles, N. Y. Carpet-fastener.....	383,849	June 5	4	1	43	1121
Barrow, Marion J., New Bloomfield, Mo. Spring-seat.....	382,207	May 1	481	124	43	601
Barrow, Thomas E., Mansfield, Ohio. Cuff-fastener.....	388,106	Aug. 21	1392	374	44	855
Barrows, Albert, Campello, Mass. Rack for use in the manufacture of boots and shoes.....	383,551	May 29	2514	663	43	1026
Barrows, Charles H., Williamatic, Conn. Machine for splitting wood.....	383,690	May 29	2696	713	43	1066
Barrows, Charles L., et al. (See Johnson, Moses C., assignor.)						
Barrows, Frank L., Milwaukee, Wis. Metallic railway-tie and fastening therefor.....	378,280	Feb. 21	1417	370	42	787
Barrows, Frederick B., assignor to himself and D. B. Smith, Jr., Duluth, Minn. Coal-scoop.....	376,424	Jan. 17	991	259	42	205
Barrus, George H., Reading, Mass. Steam-calorimeter.....	392,980	Nov. 20	1189	309	45	839
Barry, Caleb W., Keokuk, Iowa. Ore-smelting furnace.....	385,229	June 26	2052	523	43	1548
Barry, Charles, assignor of fifty-one one-hundredths to A. Lathrop and G. J. McGee, Cor- ning, N. Y. Railway time-signal.....	376,052	July 10	1050	281	44	214
Barry, Henry, assignor of one-half to D. Norton, Chicago, Ill. Animal-trap.....	380,643	Apr. 3	500	140	43	102
Barry, John W., et al. (See Subers, Thomas N., assignor.)						
Barry, Nicholas, Jr., Muscatine, Iowa. Stop-cock box.....	380,308	Apr. 3	4	1	43	3
Barry, Nicholas, Jr., Muscatine, Iowa. Plumber's trap.....	384,114	June 5	394	110	43	1196
Barry, Thomas W., Mauniest, Mich. Holdback for vehicles.....	386,179	July 17	1243	331	44	259
Barsalou, Eugene, assignor of one-half to T. C. Gonyer, Woonsocket, R. I. Shuttle-binder for looms.....	388,243	Aug. 21	1613	432	44	898
Bartels, William H., assignor of one-half to D. C. Cutler, Carthage, Ill. Wrapping-paper holder and cutter.....	390,942	Oct. 9	1041	275	45	211
Barth, Adolphus, St. Paul, Minn. Dust-cover for buggies.....	391,396	Oct. 23	1709	455	45	351
Barth, Gustav A., assignor to P. Chouteau, St. Louis, Mo. Direct-acting engine.....	384,186	June 5	510	140	43	1280
Barth, Gustav A., assignor to P. Chouteau, St. Louis, Mo. Steam or pneumatic engine.....	393,604	Nov. 27	2100	550	45	1029
Barth, Henry, and E. Lietze, Cincinnati, Ohio. Paper-cutting machine.....	390,151	Sept. 25	2051	548 549	44	1491
Barth, Henry, and E. Lietze, said Lietze assignor to Cincinnati Type Foundry, Cincinnati, Ohio. Type casting and finishing machine.....	376,765	Jan. 24	1507	397 398 399	42	311
Barth, Henry, and E. Lietze, said Lietze assignor to Cincinnati Type Foundry, Cincinnati, Ohio. Type casting and finishing machine.....	392,710	Nov. 13	781	199	45	751
Bartlett, Friedrich G., Niederpoyritz, near Dresden, assignor to P. A. Kühne, Dresden, Saxony, Germany. Self-acting motor and pump.....	378,998	Mar. 6	205	56	42	1005
Bartholomew, Cassius M., Newark, Ohio. Exercising-machine.....	387,845	Aug. 14	970	253	41	766
Bartholomew, George E., assignor of one-half to E. V. Overman, Cincinnati, Ohio. Vehicle spring-gear.....	383,850	June 5	5	2	43	1122
Bartholomew, Joel O., assignor of one-half to B. H. Douglass, Jr., New Haven, Conn. Ma- chine for cutting cocoanut-meat.....	384,414	June 12	861	224 225	43	1293
Bartholomew, Thomas, Newark, Ohio. Combination printing-stamp.....	377,927	Jan. 31	2175	574	42	448
Bartle, John N., assignor of one-half to J. W. Gillespie, Midway, Tex. Baling-press.....	383,033	May 15	1719	448	43	861
Bartlett, C. Talleyrand, Warsaw, N. Y. Salt-drier.....	384,953	June 26	1658	431	43	1461
Bartlett, Edward C., assignor to J. L. McCague, Omaha, Nebr. Seal-lock.....	381,115	June 5	396	111	43	1197
Bartlett, Frederic R., Freeport, Ill. Spring-hinge.....	393,350	Nov. 27	1714	453	45	952
Bartlett, Fredrick M., Woodstock, Me. Steam-generator.....	377,228	Jan. 31	2177	574	42	448
Bartlett, George H., Short Hills, N. J., and O. Peck, Rowe, Mass.; said Peck assignor to said Bartlett. Tool-holding box.....	388,334	Aug. 21	1765	471	44	926
Bartlett, Hayward & Co. (See Mayer, J. Frederick, assignor.)						
Bartlett, Hayward & Co. (See Newton, Charles W., assignor.)						
Bartlett, Henry, et al. (See Hecox, Charles, assignor.)						
Bartlett, James F., Chicago, Ill. Trace-buckle.....	394,671	Dec. 18	1426	372	45	1364
Bartlett, John E. T., New York, N. Y. Propeller-wheel.....	384,498	June 12	993	259	43	1317
Bartlett, John W., Moline, Ill. Plow.....	386,374	July 17	1525	404 405	44	312
Bartlett, John W., assignor to Moline Plow Company, Moline, Ill. Riveting-machine.....	392,487	Nov. 6	457	114 115	45	681

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. E.	Vol.	Page.
Bartlett, Thomas J., assignor of one-half to J. C. Gunn, C. W. Rogan, C. Oldham, Knoxville, Tenn., and H. J. Barlow, Pomona, Fla. Indicator.....	381,460	Apr. 17	1749	468	43	356
Bartlett, Wallace A., Washington, D. C., assignor to W. G. Benedict, Boston, Mass. Pneumatic cannon.....	381,901	May 1	7	2	43	516
Bartlett, William H. (See Marshall, Charles A., assignor.)						
Bartley, Leon C., assignor of two-thirds to W. Quinn and A. T. Wikoff, Cambridge, Ohio. Gravity battery.....	393,203	Nov. 20	1496	391	45	900
Bartliff, Charles A., Memphis, Tenn. Chain-pump.....	385,786	July 10	679	177	44	140
Bartling, Conrad F., Greenville, Ohio. Fence-machine.....	392,981	Nov. 20	1191	{ 309 310 }	45	839
Barto, Erastus D. (See Yeagle, Martin, assignor.)						
Barto, Fredric D. (See Osborn, Alvah P., assignor.)						
Barton, Charles C., Edinburgh, Scotland. Mechanical movement.....	388,390	Aug. 28	1859	496	44	949
Barton, Chester M., Hatfield, Mass. Syringe.....	380,673	Apr. 10	560	154	43	122
Barton, Ernest A. (See Romano and Barton.)						
Barton, Lafayette, Sherwood, Mich. Mold for earth fences.....	376,936	Jan. 24	1764	464	42	359
Barton, William E., East Hampton, Conn. Hand-bell.....	386,288	July 17	1412	373	44	290
Barton, William H. H., Brockton, assignor to E. W. Upton, Peabody, Mass. Spirometer.....	392,711	Nov. 13	757	199	45	752
Bartram, Ferdinand S. (See Rutherford and Bartram.)						
Bartram, Ferdinand S., New York, N. Y. Fountain pen and holder.....	380,014	Mar. 27	1732	465	42	1321
Bartruff, John R., Bellefonte, Pa. Two-wheeled vehicle.....	388,107	Aug. 21	1393	374	44	855
Barzen, Peter, Huron, Ohio. End-gate.....	378,352	Feb. 21	1519	397	42	808
Basch, David, New York, N. Y. Combined shoe and stocking.....	387,035	July 31	2526	664	44	523
Bascome, James W. (See Marshall, Charles G., assignor.)						
Basinger, James M., Buffalo, N. Y. Snap-hook.....	383,336	May 22	2167	573	43	956
Basinger, James M., Buffalo, N. Y. Combined coin-counter, match-safe, and cane-handle.....	394,327	Dec. 11	885	233	45	1250
Baskerville, Harry, <i>et al.</i> (See Taylor, William H., assignor.)						
Bassett, Carroll P. (See Mitchell, Horace H., assignor.)						
Bassett, Gershom C., <i>et al.</i> (See Hallowell, Albert, assignor.)						
Bassett, Hollis S. (See Pilliod, Charles J., assignor.)						
Bassett, Ira, Chicago, Ill. Pneumatic action for organs.....	387,846	Aug. 14	971	253	44	766
Bassett, Norman C., Chicago, Ill., assignor to Hydraulic Elevator Company. Operating mechanism for hydraulic elevators.....	377,346	Jan. 31	2358	682	42	480
Bassett, Norman C., Chicago, Ill., assignor to Hydraulic Elevator Company, of Illinois. Elevator.....	379,556	Mar. 20	1014	{ 271 272 }	42	1173
Bassett, Norman C., assignor to Hydraulic Elevator Company, Chicago, Ill. Valve device for hydraulic elevators.....	390,111	Sept. 25	1994	532	44	1479
Bassford & Co., William K., Jr. (See Bassford and Maynard, assignors.)						
Bassford, William K., and E. B. Maynard, assignors to W. K. Bassford, Jr., & Co., New York, N. Y. Workman's electric time-recorder.....	394,049	Dec. 4	460	{ 123 124 }	45	1159
Bassini, Charles, Newark, N. J. Stove for railway-cars.....	377,057	Jan. 31	1932	507	42	399
Bassler, John H., Myerstown, Pa. Milk-can.....	386,231	July 17	1331	352	44	275
Bassler, John H., Myerstown, Pa. Apparatus for condensing liquids.....	394,432	Dec. 11	1035	271	45	1277
Bassler, John H., Myerstown, Pa. Apparatus for condensing liquids.....	394,433	Dec. 11	1036	271	45	1278
Bassler, John H., Myerstown, Pa. Apparatus for condensing liquids.....	394,434	Dec. 11	1039	272	45	1278
Bastian, Charles, New Orleans, La. Adjustable chair and swing.....	383,206	May 22	1980	520	43	921
Bastian, Jonathan M. (See Youngman, Jacob, assignor.)						
Bataille, Achille, New York, N. Y. Metallic railing and guard.....	388,108	Aug. 21	1394	375	44	855
Batavia Wheel Company. (See True, Moses E., assignor.)						
Batcheller, George C., <i>et al.</i> (See Close, G. Albertus, assignor.)						
Batcheller, George C., <i>et al.</i> (See Littlejohn, Charles F., assignor.)						
Batdorff, Watson. (See Weida and Batdorff.)						
Bate, Henry A., Ottawa, Ontario, Canada. Combination order-book.....	376,506	Jan. 17	1108	290	42	237
Bateman, Commodore P., Exira, Iowa. Wagon-brake block.....	376,404	Jan. 10	949	249	42	190
Bateman, E. S., <i>et al.</i> (See Bateman, Frank, assignor.)						
Bateman, Frank, assignor to E. S. Bateman and E. C. Nilsen, Spring Mills, N. J. Combined harrow and cultivator.....	377,980	Feb. 14	964	251	42	696
Bateman, Isaac, Fern, Pa. Prop for top-buggies.....	382,584	May 8	1078	277	43	726
Bates, Chester M., assignor of one-half to F. N. Ruggles, Lehman, Pa. Refrigerator.....	387,203	Aug. 7	9	2	44	574
Bates, Daniel L. (See Bates, Russell H. and D. L.)						
Bates, Edwin G., assignor of one-half to S. Insull, New York, N. Y. Store-service apparatus.....	383,851	June 5	6	2	43	1122
Bates, Emery H., Washington, D. C. Shifting seat for vehicles.....	388,391	Aug. 28	1861	{ 496 497 }	44	950
Bates, Marcus W. (See Sweet, Daniel F., assignor.)						
Bates, Russell H. and D. L., Dayton, Ohio. Ice-shaving machine.....	380,844	Apr. 10	809	220	43	168
Bates, Samuel H. (See Lee, George S., assignor.)						
Bates, Stockton, assignor to Bridesburg Manufacturing Company, Philadelphia, Pa. Feed-guide for carding-machines.....	389,133	Sept. 4	498	127	44	1165
Bates, T. C. (See Laffin, Perley, assignor.)						
Bates, Theodore C. (See Laffin, Perley, assignor.)						
Batham, Charles F., New Chillicothe, Kans. Automatic regulating device for windmills.....	379,847	Mar. 20	1467	{ 387 388 }	42	1260
Batley, John, Philadelphia, Pa. Electric motor.....	388,753	Aug. 28	2367	638	44	1047
Batt, Charles F., Brooklyn, N. Y. Hoisting-tackle.....	395,113	Dec. 25	2152	555	45	1515
Batt, Frank, Tonawanda, N. Y. Shingle-trimming machine.....	387,369	Aug. 7	287	73	44	627
Batt, John B., Williamsville, assignor of two-thirds to L. Gebhard, Buffalo, N. Y. Safety-switch.....	376,177	Jan. 10	615	172	42	135
Batte, Julius E. (See Bryant, David N., assignor.)						
Batten, John, Pittsburg, Pa. Fire-escape.....	377,058	Jan. 31	1934	508	42	400
Batter, Frank, Slide, Cal. Heating apparatus for boots or shoes.....	382,681	May 15	1223	317	43	762
Batter, Frank, Slide, Cal. Traction-engine.....	382,857	May 15	1452	{ 381 382 }	43	809
Battershall, Joseph W., Attleborough, Mass. Inhaler for chloroform, &c.....	379,042	Mar. 6	266	77	42	1016
Batterson, James S., <i>et al.</i> (See Clarke, George H., assignor.)						
Batterson, James S., <i>et al.</i> (See Robinson and Watt, assignors.)						
Battin, Lambert B., Elizabeth, N. J. Steam-boiler.....	381,822	Apr. 24	2229	595	43	479
Battle, Lucius L., Riverside, Ark. Cooling and ventilating buildings.....	393,137	Nov. 20	1399	366	45	880
Batty, Lindley M., Canton, Ohio. Means for securing pulleys to shafts.....	377,661	Feb. 7	471	120	42	584
Bauche, Gustave and H., Rheims, France. Machine for napping textile fabrics.....	393,605	Nov. 27	2103	550	45	1029
Bauche, Henri. (See Bauche, Gustave and H.)						
Bauder, Silas E., Sandusky, Ohio. Device for grooming animals.....	377,420	Feb. 7	115	24	42	516
Bauder, Silas E., Cleveland, Ohio. Hitching-strap fastener.....	386,682	July 24	1932	523	44	412

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & E.	Vol.	Page.
Baudot, Jean M. E., Paris, France. Printing-telegraph.....	388,244	Aug. 21	1614	{ 432 433 434 435 }	44	898
Baner, Alexander H., Boston, Mass. Apparatus for the propulsion of cars by electrical energy.....	378,864	Mar. 6	6	2	42	968
Baner, Charles C., and F. H. Frankenberg, Pueblo, Colo. Curtain or lambrequin support for windows.....	392,774	Nov. 13	890	227	45	773
Baner, Fredrick C., Philadelphia, Pa. Soap compound.....	377,135	Jan. 31	2049	.....	42	422
Bauer, John C., Minneapolis, Minn. Beer-bottling machine.....	382,023	May 1	214	57	43	553
Baugh, Andrew J., Jonesborough, Ga. Fertilizer-distributor.....	385,990	July 10	970	258	44	198
Baughman, Joseph A., Akron, Ohio. Match-making machine.....	389,950	Sept. 25	1751	{ 463 464 }	44	1429
Baughman, Sherman E., Taylorville, Ill. Wagon-bed fastener.....	388,809	Sept. 4	3	1	44	1073
Baum, Charles, Washington, D. C. Cabinet show-case.....	375,980	Jan. 3	348	93	42	71
Baummann, Eugen A., Freiburg, Baden, assignor to Farbenfabriken, vormals Friedr. Bayer & Co., Elberfeld, Germany. Medical compound.....	391,875	Oct. 30	2382	.....	45	498
Baummann, John G., Milwaukee, Wis. Speed-regulator for shafting.....	394,435	Dec. 11	1040	272	45	1379
Baummann, Robert, St. Louis, Mo. Combination-lock and alarm.....	378,568	Feb. 28	1834	484	42	877
Baumbach, Michael J., Pittsburg, Pa. Rolls for making barbed wire.....	381,320	Apr. 17	1533	413	43	315
Baumelster, Leopold, Bridgeport, Conn. Machine for polishing wire.....	380,162	Mar. 27	1935	516	42	1361
Baumgardner, Joseph, et al. (See Keedy, John H., assignor.)						
Baumgarten, Albert. (See Morgan, Edgar H. and C., assignors.)						
Bauseh, Edward, Rochester, N. Y. Diaphragm and shutter for photographic and other lenses.....	382,858	May 15	1454	382	43	809
Bautaine, Auguste C. T., Paris, France. Brake for vehicles.....	394,436	Dec. 11	1041	272	45	1379
Baville, Edmond P., Brussels, Belgium, assignor, by mesne assignments, to S. Nicholson and S. Waterman, Providence, R. I. Lathe-chuck.....	377,596	Feb. 7	364	93	42	565
Baxter, Berry A., Mansfield, Ohio. Stove-door.....	391,574	Oct. 23	1948	525	45	401
Baxter Electric Manufacturing and Motor Company. (See Baxter, William, Jr., assignor.)						
Baxter, Emory W., Burr Oak, Mich. Two-wheeled vehicle.....	395,114	Dec. 25	2154	556	45	1515
Baxter, William, Jr., Baltimore County, Md. Overloading and slack cable-stop for electrical hoisting-machines.....	394,952	Dec. 25	1902	{ 492 493 }	45	1466
Baxter, William, Jr., Baltimore County, assignor to Baxter Electric Manufacturing and Motor Company, Baltimore, Md. Electric shunting device.....	384,116	June 5	402	{ 111 112 112 }	43	1198
Baxter, William, Jr., Baltimore County, assignor to Baxter Electric Manufacturing and Motor Company, Baltimore, Md. Governor for electric motors.....	384,117	June 5	404	{ 112 113 }	43	1198
Bay, Gustave, Suresnes, near Paris, France. Photographic copying process.....	394,437	Dec. 11	1042	.....	45	1279
Bay, Jacques, Paris, France. Mirror.....	382,291	May 8	618	{ 157 158 }	43	637
Bay State Lasting Machine Company. (See Wood, Charles T., assignor.)						
Bay State Shoe Fastening Company. (See Bean, William Z., assignor.)						
Bayard, George A., Bellefonte, Pa. Concrete pavement.....	381,667	Apr. 24	2052	.....	43	435
Bayaud, George D. (See O'Kelly, James M., assignor.)						
Bayer, Adolph, Brooklyn, N. Y. Thermometer.....	383,691	May 20	2697	713	43	1066
Bayer, George, New York, N. Y. Manufacture of hinges.....	376,702	Jan. 17	1410	370	42	284
Bayer, Karl J., St. Petersburg, Russia. Obtaining alumina.....	382,505	May 8	951	241	43	700
Bayles, James C., New York, N. Y. Hub and spigot coupling for sheet-metal pipes.....	390,152	Sept. 25	2054	549	44	1491
Bayley, Charles H., et al. (See Griffin, John H., assignor.)						
Bayley, Charles H., Boston, Mass. Leather-skiving machine.....	391,575	Oct. 23	1949	525	45	401
Bayley, William. (See Whitoley and Bayley.)						
Bayley, William, assignor to Toronto Reaper and Mower Company, Springfield, Ohio. Mowing-machine.....	392,658	Nov. 13	711	{ 179 180 }	45	736
Baynes, John, Westchester County, N. Y. Printing-transfer process.....	378,419	Feb. 28	1614	425	42	833
Baynes, John, Westchester County, N. Y. Decorating metal.....	378,430	Feb. 28	1616	425	42	834
Baynes, John, Westchester County, N. Y. Ornamenting metal.....	378,431	Feb. 28	1617	425	42	833
Baynes, John, Westchester County, N. Y. Decorating metallic surfaces.....	378,432	Feb. 28	1618	426	42	833
Baynes, John, Westchester County, N. Y. Etching on one or both sides.....	378,433	Feb. 28	1619	426	42	834
Baynes, John, Westchester County, N. Y. Apparatus for decorating metals.....	379,092	Mar. 6	342	98	42	1030
Baynes, John, Bronxdale, assignor of one-fourth to L. De Forest, Oyster Bay, N. Y. Photographic apparatus.....	389,868	Sept. 25	1636	{ 433 434 }	44	1405
Baynes, John, Westchester, assignor of one-fourth to L. De Forest, Oyster Bay, N. Y. Ornamenting watch-cases.....	389,917	Sept. 25	1712	453	44	1422
Baynes, William, Jasper, Mo. Clothes-pouder.....	390,744	Oct. 9	766	201	45	159
Bayrer, William J., Southington, Conn. Machine for beading sheet metal.....	388,471	Aug. 28	1968	528	44	972
Bayrer, William J., Southington, Conn. Timman's flanging-machine.....	393,055	Nov. 20	1294	336	45	860
Bays, William W., Asheville, N. C. Rain-water cut-off and filter.....	390,943	Oct. 9	1042	276	45	211
Bazemore, Arnold G., Aulander, N. C. Plow.....	382,940	May 15	1568	409	43	832
Bazill, Joseph F., St. Paris, Ohio. Fence.....	378,425	Feb. 28	1632	{ 426 427 }	42	834
Bazin, Charles T., Lowell, Mass. Mordant for dyeing.....	392,659	Nov. 13	713	.....	45	737
Beach, Adam. (See Simons and Beach.)						
Beach, Brown & Co. (See Beach, Henry L., assignor.)						
Beach, Elias, Chicago, Ill. Argand lamp-burner.....	381,009	Apr. 17	1227	320	43	255
Beach, Elias, Chicago, Ill. Argand gas-burner.....	383,337	May 22	2168	573	43	956
Beach, Elias, Chicago, Ill. Argand gas-burner.....	383,338	May 22	2170	{ 573 574 }	43	956
Beach, George A., assignor of one-half to J. F. Somes, Chicago, Ill. Carriage speaking-tube.....	386,053	July 10	1052	221	44	215
Beach, George A., assignor to himself and J. F. Somes, Chicago, Ill. Carriage speaking-tube.....	386,054	July 10	1054	282	44	215
Beach, George A., assignor to E. E. Wise, Chicago, Ill. Carriage warmer and ventilator.....	390,123	Sept. 25	2056	549	44	1492
Beach, George A., assignor to E. E. Wise, Chicago, Ill. Street-car warmer.....	390,154	Sept. 25	2058	{ 549 550 }	44	1492
Beach, George I. (See Benedict, Heman A., assignor.)						
Beach, Henry B. (See Babbitt and Beach.)						
Beach, Henry L., Montrose, Pa. Scroll-saw.....	381,751	Apr. 24	2170	568	43	458
Beach, Henry L., Montrose, Pa. Well-curb.....	387,759	Aug. 14	848	219	44	741
Beach, Henry L., Montrose, Pa. Joint for furniture, boxes, or like articles.....	389,684	Sept. 18	1352	355	44	1342
Beach, Henry L., assignor to Beach, Brown & Co., Montrose, Pa. Saw-table gage.....	381,752	Apr. 24	2172	568	43	458
Beach, John K., et al. (See Moore, James L., assignor.)						
Beach, John K., et al., trustees. (See Donlitle, George, assignor.)						
Beach, Oliver B., Stony Creek, Conn. Obtaining oyster-apat.....	385,161	June 26	1981	507	43	1528
Beach, Philemon T., Luling, Tex. Animal-trap.....	384,415	June 12	863	225	43	1293

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Beach, William L. (See Lathrop, James, assignor.)						
Beacham, Frederick L., <i>et al.</i> (See Reams, John V., assignor.)						
Beard, Kate P., Tyler, Tex. Hand propelling device for sewing-machines	380,973	Apr. 10	1018	266	43	206
Beal, Thomas W., assignor to Sandwich Enterprise Company, Sandwich, Ill. Cultivator	380,783	Apr. 10	725	198	43	152
Beal, William C. (See Brooks and Beal.)						
Beale, Alfred G., assignor of one-half to W. Mackenzie, Dublin, county of Dublin, Ireland. Corn-planter	377,059	Jan. 31	1936	{ 508 509 }	42	400
Beale, Forrest W. (See Reed and Beale.)						
Beale, Joseph H. (See Murdock, Adna C., assignor.)						
Beall, Frank, Decatur, Ill. Rolls for grinding-mills	383,852	June 5	7	2	43	1122
Beall, Sylvester W., Columbus, Ohio. Vaginal syringe	376,727	Jan. 24	1449	381	42	301
Beals, Augustus, North Weymouth, Mass. Hammock-spreader	375,793	Jan. 3	96	28	42	23
Beals, Ebenezer, assignor to J. M. Guernsey, Norwich, N. Y. Locomotive-brake. (Reissue).	10,894	Jan. 17	1445	380	42	292
Beals, George C., Buffalo, N. Y. Hook	380,974	Apr. 10	1019	266	43	206
Bean, Charles E., Westport, assignor of one-half to M. C. Yarwood, Fall River, Mass. Heat-regulator for incubators	382,403	May 8	790	200	43	669
Bean, Daniel V., Plover, Wis. Rear sight for fire-arms	382,130	May 1	373	97	43	582
Bean, Edward D., Arlington, Mass. Policeman's baton or club	385,293	June 26	2193	560	43	1569
Bean, Edward D., Arlington, Mass., assignor to Cyclist's and Sportsman's Gun and Rifle Company, Kittery, Me. Cane-gun barrel	380,975	Apr. 10	1020	266	43	206
Bean, Edward D., Boston, Mass., assignor to Cyclist's and Sportsman's Gun and Rifle Company, Kittery, Me. Cane-gun. (Reissue)	10,910	Mar. 20	1587	418	42	1283
Bean, Edwin E., assignor to Star Metallic Thread Company, Boston, Mass. Pegging-machine	380,674	Apr. 10	561	{ 154 155 }	43	122
Bean, William Z., West Medford, Mass., assignor to Bay State Shoe Fastening Company, Nashua, N. H. Nailing-machine	389,632	Sept. 18	1266	{ 333 334 335 }	44	1326
Bean, William Z., West Medford, Mass., assignor to Bay State Shoe Fastening Company, Nashua, N. H. Nail	391,773	Oct. 30	2216	600	45	466
Beane, De Witt C., Newark, N. J. Pipe-threading die-stock	393,457	Nov. 27	1870	492	45	982
Beard, Edwin, Antigo, Wis. Device for canting logs and operating saw-mill dogs	392,841	Nov. 13	987	253	45	792
Beard, Eli F., Republic, Ohio. Churn	379,848	Mar. 20	1470	388	42	1260
Beard, Francis L., Pleasant Ridge, Kans. Bob-sled	376,227	Jan. 10	715	190	42	147
Beard, John R., Springfield, Ohio. Harvester	381,606	Apr. 24	1971	518	43	419
Beard, Joshua G. (See Vale, William T., assignor.)						
Beard, Sylvanus W. (See Booth and Beard.)						
Beard, Wilbin E., Cincinnati, Ohio. Refrigerator-vehicle	387,943	Aug. 14	1134	304	44	798
Beard, William K., Lancaster, and J. M. Raymond, Florin, Pa. Signal-lantern	376,573	Jan. 17	1196	316	42	244
Beard, William K., and H. A. Aukamp, Jr., Lancaster, Pa. Compensator	377,476	Feb. 7	193	46	42	533
Bearden, Daniel B., Wilson, Kans. Grain-drill	384,499	June 12	995	259	43	1317
Beardslee, Isaac N. (See Hammond, C. Newton, assignor.)						
Beardslee, James C. (See Hopkins, Coventry, Neymann, and Beardslee.)						
Beardsley, Charles M., Cleveland, Ohio. Blotter-bath	375,794	Jan. 3	97	29	42	23
Beardsley, Melvin W. (See Pearce and Beardsley.)						
Beardsley, William, Beacon, Iowa. Cork-holder for bottles	382,859	May 15	1456	382	43	810
Beardsley, William H., and B. Perry, Eureka, Cal. Saw filing and setting machine	387,337	Aug. 7	205	54	44	610
Beardsley, William L., <i>et al.</i> (See Hughes, Thomas, assignor.)						
Beasley, Maria E., J. G., and M. O. Rehlfuss, Philadelphia, Pa., assignors to American Barrel and Stave Company, Camden, N. J. Barrel-making machine	380,976	Apr. 10	1021	267	43	206
Beasley, Maria E., J. G. Rehlfuss, and G. M. Newhall, Philadelphia, Pa., assignors to American Barrel and Stave Company, Camden, N. J. Barrel-setting-up machine	393,683	Nov. 27	2223	583	45	1053
Beasley, William F., Oxford, N. C. Sheet-metal seal	377,662	Feb. 7	472	120	42	584
Beasley, William F., Oxford, N. C. Suet-lock	386,683	July 24	1983	524	44	412
Beath, William H., assignor to C. H. C. Burlingame, Rockford, Ill. Spring-hinge	381,100	Apr. 17	1230	330	43	256
Beath, William H., assignor to C. H. C. Burlingame, Rockford, Ill. Spring-hinge	390,054	Sept. 25	1908	503	44	1461
Beatley, Henry G., Ithaca, N. Y. Apparatus for treating pipes and similar materials	377,597	Feb. 7	365	94	42	565
Beatley, Henry G., Ithaca, N. Y. Apparatus for treating metal pipes	378,756	Feb. 28	2096	{ 552 553 }	42	927
Beattie Battery Zinc and Electrical Company. (See Beattie, John, Jr., assignor.)						
Beattie, John, Jr., Westport, Mass. Secondary battery	388,335	Aug. 21	1767	471	44	926
Beattie, John, Jr., Fall River, Mass. Carbon electrode for electric batteries	394,810	Dec. 18	1657		45	1412
Beattie, John, Jr., assignor to Beattie Battery Zinc and Electrical Company, Fall River, Mass. Battery-zinc	376,228	Jan. 10	716	191	42	147
Beattie, John, Jr., assignor to Beattie Battery Zinc and Electrical Company, Fall River, Mass. Battery-zinc	383,271	May 22	2083	548	43	941
Beattie, William, Cohoes, assignor of one-sixth to J. M. Nichol, Oneonta, N. Y. Machine for uniting looped fabrics	389,134	Sept. 4	499	{ 127 128 }	44	1165
Beatty, Dempster, assignor to Beatty Felting Company, Mishawaka, Ind. Making combined knit and cloth boots	380,163	Mar. 27	1938	517	42	1361
Beatty Felting Company. (See Beatty, Dempster, assignor.)						
Beatty, Richard W., and G. Hofner, Pittsburg, Pa. Egg-rack	381,523	Apr. 24	1852	490	43	396
Beatty, Robert P., Norwalk, Conn. Ink-staud	379,093	Mar. 6	344	98	42	1030
Beaubien, Philip J. (See Gareau, Roch R., assignor.)						
Beauchamp, William A. J., Orange, Tex. Automatic damper	377,136	Jan. 31	2049	{ 536 537 }	42	422
Beauchemin, Joseph E., Sorel, Quebec, Canada. Rotary engine	385,522	Aug. 28	2032	547	44	984
Beauchemin, Louis N., Hancock, Mich. Composition for roadways	385,496	July 3	248		44	50
Beauchemin, Louis N., Hancock, Mich. Composition for sidewalks	387,390	Aug. 7	289		44	627
Beaulieu, John, Arcata, Cal. Saw-handle	384,500	June 12	997	259	43	1318
Beaumont, William W., Herne Hill, county of Surrey, England. Apparatus for varying the velocities of rotating mechanism	377,598	Feb. 7	368	95	42	566
Beauregard, John H., and W. F. Bidwell, Lansingburg; said Beauregard assignor to C. E. Stacks, Troy, N. Y. Blacking-brush	381,607	Apr. 24	1973	518	43	419
Beauregard, Napoleon, San Francisco, Cal. Lifting-jack	390,834	Oct. 9	891	236	45	182
Beauregard, Victor, St. Hyacinthe, Quebec, Canada. Boot or shoe sole edge trimming machine. (Reissue)	10,960	Oct. 2	612	162	45	123
Beaver Manufacturing Company. (See McKenzie, George W., assignor.)						
Beavers, Jeremiah V., Mount Summit, Ind. Line-holder	377,367	Feb. 7	2	1	42	495
Beavor-Webb, John, assignor to A. J. Leith, New York, N. Y. Yoke-frame for cable roads	394,801	Dec. 18	1646	430	45	1410
Bechaux, Louis, Fils, Porentruy, Switzerland. Apparatus for distilling alcohol	389,539	Sept. 18	1113	294	44	1298
Becher, James A., Mishawaka, Ind. Bolt-threading machine	377,981	Feb. 14	965	251	42	696
Becher, James A., Mishawaka, Ind. Screw-cutting die-head	389,433	Sept. 11	959	251	44	1263
Becher, James A., Mishawaka, Ind. Screw-cutting die-head	389,434	Sept. 11	960	251	44	1263

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Bechman, Henry F., assignor to Schmiedewend & Lee Company, Chicago, Ill. Gripper for platen printing-machines	378,160	Feb. 21	1229	333	42	753
Becht, Louis A., assignor to E. Viollier, Paris, France. Safe-fastener	393,289	Nov. 20	1625	427	45	926
Bechtold, Adolph. (See Vanderwaag, Maurice A., assignor.)						
Bechtold, John, assignor of one-half to M. H. Dunlevy, Henryville, Ind. Animal or other power	384,603	June 19	1143	302	43	1354
Bechtold, William, assignor of one-half to D. Eisenhardt, New York, N. Y. Churn	381,668	Apr. 24	2053	537	43	435
Beck, Adam H., assignor of one-half to J. House, Savannah, Ga. Picture-exhibitor	3-0,977	Apr. 10	1023	267	43	207
Beck, August, Chicago, Ill. Shuttle-driver for quilting-machines	376,280	Jan. 10	783	208	42	160
Beck, August, Chicago, Ill. Quilting-machine	378,915	Mar. 6	76	22 23	42	981
Beck, Charles, Philadelphia, Pa. Paper-cutting machine	383,692	May 29	2628	713	43	1066
Beck, Charles T. (See Beck, Francis M., W. H., and C. T.)						
Berk, Francis M., W. H., and C. T., Wabash, Ind. Shaft-bearer	394,438	Dec. 11	1043	272	45	1279
Beck, Frederick, New York, N. Y. Wall-paper	388,472	Aug. 28	1969		44	972
Beck, Frederick S. (See Smith, Isaac, assignor.)						
Beck, Robert M., Chambersburg, Pa. Automatic relief-valve	392,982	Nov. 20	1194	310	45	840
Beck, Will H. (See Beck, Francis M., W. H., and C. T.)						
Becker, Francis L., New York, N. Y. Door-spring	391,731	Oct. 23	2159	583 584	45	444
Becker, Frank, McKeesport, Pa. Cue and ball rack and tip-fastener	391,677	Oct. 23	2084	564	45	429
Becker, Georges, Lancy, near Geneva, and D. Monnier, Geneva, canton of Geneva, Switzerland. Device for printing musical and other characters	381,902	May 1	8	2	43	516
Becker, Johann P., Jr., Remscheid, Prussia, Germany. Skate	399,998	Sept. 25	1822	483	44	1443
Becker, Victor H., Chicago, Ill. Condenser	386,447	July 24	1649	434 435	44	348
Becker, William, Brooklyn, N. Y. Snapper attachment for whips	377,137	Jan. 31	2050	537	42	423
Becker, Wolfgang. (See Durkee and Becker.)						
Beckerle, William, Danbury, Conn. Hat stretching and blocking machine	386,955	July 31	2415	635	44	501
Beckerleg, James G. (See Erwood, John, assignor.)						
Beckers, Alexander, Hoboken, N. J. Self-adjusting grapple	388,109	Aug. 21	1394	375	44	856
Beckert, William, Allegheny, Pa. Combined wagon jack and truck	386,913	July 31	2358	619	44	490
Beckert, William, Allegheny, Pa. Barrel-stand	394,439	Dec. 11	1044	273	45	1279
Beckett, Albert W., St. Catharines, Ontario, Canada. Basket-bottom	378,757	Feb. 28	2009	553	42	927
Beckett, Thomas, Jersey City, N. J. Binding blank-books	377,880	Feb. 14	820	209	42	665
Beckingsale, Edgar W. (See Halford and Beckingsale.)						
Beckley, John H., and A. Kimmey, Wilmington, Del. Berth for sleeping-cars	392,842	Nov. 13	990	253 254	45	793
Beckwith, Capitola P. (See Beckwith, Nelson, Jr., assignor.)						
Beckwith, Eugene K. (See Luce and Beckwith.)						
Beckwith, Eugene K., assignor of one-half to G. P. Hill, Niantic, Conn. Combined gage and square	387,966	Aug. 14	1168	317	44	805
Beckwith, Nelson, Jr., assignor, by mesne assignments, to C. P. Beckwith, Cambridge, Mass. Packing-case fastener	377,477	Feb. 7	194	46	42	533
Beckwith, Philo D., Dowagiac, Mich. Stove	385,991	July 10	971	259	44	199
Bedell, Arthur F., Lowell, Mass. Fire-escape	387,619	Aug. 14	649	168	44	704
Bedell, William H., Sayville, N. Y. Traction-truck	376,703	Jan. 17	1411	370	42	224
Bedford, George J., Anamosa, Iowa, assignor to A. R. Lockwood, East Orange, N. J. Mail-pouch	384,736	June 19	1339	349 350	43	1392
Bedford, William F. (See Tunia and Bedford.)						
Bedient, J. Russell. (See Buddington and Bedient.)						
Beebe, Charles S., Racine, Wis. Whip-socket	380,164	Mar. 27	1939	517	42	1361
Beebe, Charles S., Racine, Wis. Two-wheeled vehicle	394,050	Dec. 4	463	125	45	1160
Beebe, George, Penn Yan, N. Y. Two-wheeled vehicle	383,207	May 22	1984	521	43	923
Beebe, Theodore S., assignor of one-half to H. M. Derrnell, Albany, N. Y. Lock-hinge	385,162	June 26	1982	508	43	1528
				251 252 253 254 255 256 257 258 259		
Beecher, Ebenezer B., Westville, Conn. Machine for making matches	389,435	Sept. 11	961	255 256 257 258 259	44	1264
Beecher, Edwin N., assignor of one-half to H. H. Newell, Marion, Conn. Nut-tapping machine	377,286	Jan. 31	2267	599 600	42	464
Beecher, Frank H., et al. (See Murphy, John M., assignor.)						
Beecher, Harry W., et al. (See Hunter, Arvine P., assignor.)						
Beecher, William F., Cleveland, Ohio. Coal-stove	379,629	Mar. 20	1129	299	42	1194
Beecher, William F., Cleveland, Ohio. Stove-door	381,101	Apr. 17	1231	330	43	256
Beecroft, Walter, Leeds, county of York, assignor to W. Jones, Guide Bridge, England. Mechanism for imparting motion to sewing-machine loop-takers	390,278	Oct. 2	109	31	45	25
Beedle, Augustus D., Kansas City, Mo. Vehicle-awning	379,356	Mar. 13	710	193	42	1106
Beedy, Seth E., assignor of one-fourth to D. W. Austin and J. J. Linscott, Farmington, Me. Telephonic transmitter	376,060	Jan. 10	469	126	42	101
Beekman, John V., Brooklyn, assignor to Ledgerwood Manufacturing Company, New York, N. Y. Steam-generator	384,555	June 12	1068	279	43	1331
Beeman, George C., Minneapolis, Minn. Grain-separator	387,204	Aug. 7	11	2	44	574
Beer, Charles H., New York, N. Y. Hinge	382,860	May 15	1457	382	43	810
Beer, Enoch H. (See Litchfield, Homer, assignor.)						
Beer, Thomas M., assignor to F. E. and P. A. Myers, Ashland, Ohio. Force-pump	395,205	Dec. 25	2302	500	45	1540
Beers, James M., Brooklyn, N. Y. Manufacturing books	376,848	Jan. 24	1648	431	42	337
Beers, James M., Brooklyn, N. Y. Identifying-label for books	388,012	Aug. 21	1239	337	44	828
Beers, John E. (See Jennings, Oscar S., assignor.)						
Beers, Philo M., Bridgeport, Conn. Needle-grooving machine	378,489	Feb. 28	1719	454 455	42	855
Beers, Roderick S., et al. (See Fox, Frank A., assignor.)						
Beers, Smith, Danbury, Conn. Whiffletree-coupling	394,811	Dec. 18	1657	433	45	1412
Beery, John V., et al. (See Burdall, Stephen, assignor.)						
Beesly, Charles W., assignor to S. F. Van Choate, Boston, Mass. Composition for pre-serving	388,810	Sept. 4	4	2	44	1073
Beeson, William, Dillon, Mont. Ter. Flying-machine	376,937	Jan. 21	1765	464	42	360
Beetz, Peter, Brooklyn, N. Y. Grip-tester or similar coin-controlled device	394,812	Dec. 18	1659	434	45	1412
Beggs, John S., assignor to Smith, Beggs & Ranken Machine Company, St. Louis, Mo. Safety device for elevators	382,208	May 1	482	124	43	602



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Begtrup, Julius, Jersey City, N. J. Steam-engine governor	387,205	Aug. 7	12	3	44	575
Behan, Frank A. (See Hanly, Thomas F., assignor.)						
Behlen, Charles A. (See Behlen, Jacob J. and C. A.)						
Behlen, Charles A., Cincinnati, Ohio. Buggy-top	375,861	Jan. 3	175	49	42	39
Behlen, Charles A., Cincinnati, Ohio. Running-gear for vehicles	380,078	Mar. 27	1827	486	42	1339
Behlen, Jacob J. and C. A., Cincinnati, Ohio. Buggy-boot	379,043	Mar. 6	268	77	42	1016
Behm, Joseph, West Point, Cal. Centrifugal pulverizer	392,488	Nov. 6	459	115	45	681
Behmer, Daniel. (See Woolley and Behmer.)						
Behr, Fritz B. (See Mallet and Behr.)						
Behr, Hermann, assignor of one-half to F. Friedgen, Philadelphia, Pa. Monocycle	379,849	Mar. 20	1471	388 389	42	1260
Behrns, Gustav, Lubeck, Germany. Dust-collector	381,753	Apr. 24	2174	568 569	43	458
Behrens, Henry J., New York, N. Y. Earth-closet	393,608	Nov. 27	2110	552	45	1031
Beigel, F. A. John, St. Louis, Mo. Driving-drum for railway-cables	385,230	June 26	2083	533 534	43	1548
Beimling, Henry F., assignor to C. H. Schwerdfeger and C. S. Weierman, Philadelphia, Pa. Centrifugal creamer	382,506	May 8	952	241	43	700
Beinke & Co., August M. (See Bonehill, Robert, assignor.)						
Beisel, Franklin P., assignor of one-half to G. Knapp and C. Saybold, Pottstown, Pa. Washing-machine	379,357	Mar. 13	711	193	42	1106
Beisonbert, William E., assignor of one-half to J. F. Edwards, Formosa, Ill. Rein-holder	381,608	Apr. 24	1974	519	43	419
Belcher, George C. W., St. Louis, Mo. Antiseptic soap	383,853	June 5	8		43	1122
Belcher, John R., Charlotte, Mich. Land-roller	378,016	Mar. 6	80	23	42	982
Belden, James T., Sparta, Wis. Animal-trap	385,086	June 26	1876	470	43	1506
Belding, Edgar F., Fitchburg, Mass. Counter-skiving machine	390,551	Oct. 2	502	131 132	45	101
Belding, Warren S., Chicago, Ill. Armature-core for dynamo-electric machinery	394,905	Dec. 18	1828	473 474	45	1442
Belding, Warren S., Chicago, Ill. Armature for dynamo-electric machinery	395,260	Dec. 25	2392	612	45	1557
Beldsmeier, Henry W., St. Louis, Mo. Pulley	384,501	June 12	978	260	43	1318
Belfield, Henry, et al. (See Goehring, John R., assignor.)						
Belfield, Reginald, Great Barrington, Mass., assignor to G. Westinghouse, Jr., Pittsburg, Pa. Automatic regulator for electric lamps	386,796	July 31	2158	567	44	453
Belfield, Reginald, Great Barrington, Mass., assignor to G. Westinghouse, Jr., Pittsburg, Pa. Automatic regulation for electric currents	386,797	July 31	2160	568	44	454
Belfield, Reginald, assignor to Westinghouse Electric Company, Pittsburg, Pa. System of electrical translation	380,845	Apr. 10	810	220	43	168
Belfield, Reginald, assignor to Westinghouse Electric Company, Pittsburg, Pa. System of electrical translation	380,846	Apr. 10	812	221	43	168
Belfield, Reginald, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electric cigar-lighter	383,611	May 29	2591	685	43	1043
Belfield, Reginald, assignor to Westinghouse Electric Company, Pittsburg, Pa. Regulator for electric circuits	386,956	July 31	2419	635	44	502
Belfield, Reginald, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electric discharge device	392,400	Nov. 6	336	83	45	658
Belfield, T. Broom, et al. (See Goehring, John R., assignor.)						
Belfour, Joseph F. (See Johns, David W., assignor.)						
Belisle, Robert F. S., Philadelphia, Pa., assignor of one-half to F. Bourquin, Camden, N. J. Ship for submarine observations	385,656	July 3	484	125	44	94
Belknap, Ethelbert. (See Hogel and Browne, assignors.)						
Belknap, Lydia E., et al. (See Simmonds, William, assignor.)						
Belknap Manufacturing Company. (See Ellis, David T., assignor.)						
Belknap, William H., et al. (See Simmonds, William, assignor.)						
Bell, Alonzo, Washington, D. C., assignor of one-half to Baker, Smith & Co., New York, N. Y. Safety-casing for car-heaters	383,034	May 15	1721	448	43	862
Bell, Carl, Cincinnati, Ohio. Automatic bobbin-winder	377,421	Feb. 7	116	24	42	516
Bell, Charles E., assignor of one-half to E. L. McClain, Greenfield, Ohio. Regenerative gas-lamp	381,205	Apr. 17	1371	366	43	283
Bell, Charles S., Hillsborough, Ohio. Metal mold	382,633	May 8	1147	295	43	739
Bell, George W., assignor of one-half to J. O. Stephens, St. Joseph, Mo. Truss	392,983	Nov. 20	1196	310 311	45	840
Bell, Harold J., Woodbury, N. J., assignor to Welsbach Incandescent Gas Light Company, of New Jersey. Atmospheric gas-burner	390,055	Sept. 25	1909	504	44	1461
Bell, Harold J., Woodbury, N. J., assignor to Welsbach Incandescent Gas Light Company, of New Jersey. Incandescent gas-burner	390,056	Sept. 25	1910	504	44	1461
Bell, Harold J., Woodbury, N. J., assignor to Welsbach Incandescent Gas Light Company, of New Jersey. Manufacture of gas incandescents	390,057	Sept. 25	1911	504	44	1461
Bell, Henry C., Union City, Tenn. Stamp-extractor	386,957	July 31	2420	626	44	502
Bell, Isaac E., et al. (See Neff, Elijah, assignor.)						
Bell, Jacob, Parsons, assignor of one-half to W. B. Posten, Wilkes-Barré, Pa. Handle for tools	379,439	Mar. 13	833	225	42	1131
Bell, Joseph H., and A. L. Gregory, Edenton, N. C. Stove-truck	383,610	May 29	2590	685	43	1043
Bell, Newton, M. (See Henderson, Hugh C., assignor.)						
Bell Telephone Company of Canada. (See Brown, Charles W., assignor.)						
Bell, William. (See Hersey and Conley, assignors.)						
Bell, William, Morden, Manitoba, Canada. Sheaf-carrier for grain-harvesters	382,404	May 8	791	201	43	669
Bell, William, Philadelphia, Pa. Apparatus for heating, cooling, ventilating, and drying photographic plates	384,416	June 12	864	225	43	1293
Bell, William N., Pittsburg, Pa. Hoisting-jack	383,035	May 15	1724	449	43	862
Bella, Guiseppo. (See Zonca and Bella.)						
Bellanger, Adolphe, Montreal, Quebec, Canada. Nail	391,109	Oct. 16	1311	350	45	268
Bellati, Anthony J., Philadelphia, Pa. Eyeglass-frame	391,934	Oct. 30	2468	667	45	515
Belles, William H., Orion, Mich. Fence-machine	392,001	Oct. 30	2565	696	45	533
Bellinger, Franz C., Fulda, Prussia, Germany. Interlocking the edges of metal plates	384,118	June 5	409	113	43	1199
Bellis, David C., assignor of one-half to S. H. Weihenmayer, Philadelphia, Pa. Knitting-machine	385,163	June 26	1983	508	43	1528
Bellon, David, McKownville, N. Y. Car-coupling	390,944	Oct. 9	1044	276	45	211
Bellows, Charles P., Gloversville, N. Y. Cleansing gold and silver where mechanically coated in ores with refractory substances	387,036	July 31	2527		44	523
Belmont, George E., San Francisco, Cal. Apparatus for reducing bituminous rock	381,321	Apr. 17	1535	414	43	315
Belote, Anthony W., Lowndes County, Ga. Plow	391,985	Oct. 30	2469	668	45	515
Belt, William H., et al. (See Keller, Henry R., assignor.)						
Belton, John D., assignor to G. A. Lanaux, New Orleans, La. Pestle for mortars	387,847	Aug. 14	973	253	44	766



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Belton, John D., assignor of one-half to G. A. Lanaux, New Orleans, La. Rice-hulling machine	376,626	Jan. 17	1292	340	42	262
Bement, William O., Worcester, Mass. Metallic mat or floor-covering	377,478	Feb. 7	195	46	42	533
Bement, William O., assignor to Wire Goods Company, Worcester, Mass. Curtain-pole bracket	375,981	Jan. 3	349	94	42	71
Bemis, Albert T., assignor to himself and R. Elliott, Jr., Louisville, Ky. Hot-air regulator	385,992	July 10	973	259	44	199
Bemis, Sumner A. (See Pfingst and Bemis)						
Bemis, Sumner A., Springfield, Mass. Cable-car truck	388,811	Sept. 4	5	2	44	1074
Bemis, Sumner A., Springfield, Mass., and L. Pfingst, New York, N. Y. Cable-railway system	388,812	Sept. 4	6	2, 3	44	1074
Benardos, Nicholas, St. Petersburg, Russia. Working metals by electricity	388,245	Aug. 21	1626	435	44	899
Benardos, Nicholas, St. Petersburg, Russia. Apparatus for working metals by electricity	388,246	Aug. 21	1627	435	44	899
Bender, Fritz, assignor to A. Leonhardt & Co., Mühlheim-on-the-Main, Germany. Production of coloring matter	395,115	Dec. 25	2155		45	1515
Bender, George, Brooklyn, assignor, by mesne assignments, to Manhattan Type Foundry, New York, N. Y. Type-metal pot and furnace	389,135	Sept. 4	502	128	44	1165
Bender, Jacob F., Columbia, Pa. Tire-bender	387,848	Aug. 14	973	253	44	767
Bender, Jacob F., Columbia, assignor of one-half to Potts & Weber, Lancaster, Pa. Intermittent grip for fan-blowers or other machines	376,361	Jan. 10	896	235	42	180
Bender, John K., and J. H. Bingman, Highland, Kans. Automatic grain weigher and register	394,440	Dec. 11	1045	273	45	1280
Bender, John R. (See Allen, Harry W., assignor.)						
Bender, John T. (See Ball and Bender.)						
Bender, Joseph T., Newark, N. J. Cuff-holder	392,401	Nov. 6	337	83	45	658
Bending, William P., Columbus, Ohio. Fire-extinguisher	393,606	Nov. 27	2105	551	45	1030
Bending, William P., assignor of one-half to V. S. Seltzer, Columbus, Ohio. Car-heater	382,567	May 8	953	241	43	701
Bendler, William E., Shelbygan, Wis. Fifth-wheel	393,056	Nov. 20	1295	336	45	860
Bené, Rémi T., Hoboken, N. J., assignor to J. Kaufmann & Co. New York, N. Y. Making leather boots	392,095	Oct. 30	2719	738 739	45	564
Benedict, Charles A., Indianapolis, Ind. Lathe for turning articles having longitudinally-curved surfaces	388,110	Aug. 21	1396	375	44	856
Benedict, George W., and H. Y. Miller, College Corner, Ind. Tellurian	390,335	Oct. 2	189	51	45	41
Benedict, Heman A., assignor of one-fourth to G. I. Beach, Syracuse, N. Y. Inside blind	375,982	Jan. 3	351	94	42	71
Benedict, Heman A., assignor of one-half to G. I. Beach, Syracuse, N. Y. Inside blind	384,954	June 26	1660	431	43	1461
Benedict, Henry W. (See Fry and Benedict.)						
Benedict, Henry W., et al. (See Fry, Frederick D., assignor.)						
Benedict, Irving W., assignor of one-fourth to H. Sitterly, Cobleskill, N. Y. Veterinary surgical device	381,491	Apr. 17	1795	478	43	366
Benedict, Theodore H. (See Fry, Frederick D., assignor.)						
Benedict, Theodore H. (See Fry and Benedict, assignors.)						
Benedict, Washington G. (See Bartlett, Wallace A., assignor.)						
Benfield, Thomas, Newark, N. J. Bicycle-step	379,557	Mar. 29	1017	272	42	1174
Benham, Elijah B., Holyoke, Mass. Multiple-cylinder motor	380,847	Apr. 10	813	221	43	169
Benham, Elijah B., Holyoke, Mass. Speed-governor for motors	380,848	Apr. 10	815	222	43	169
Benham, Elijah B., Holyoke, Mass. Valve for multiple-cylinder engines	380,849	Apr. 10	818	222	43	170
Benham, Elijah B., Holyoke, Mass. Pitman-and-erank connection	380,850	Apr. 10	820	223	43	170
Benham, Elijah B., Holyoke, Mass. Hydraulic-elevator mechanism	380,851	Apr. 10	820	223	43	170
Benham, Elijah B., Holyoke, Mass. Compound steam-engine	393,607	Nov. 27	2106	551	45	1030
Benham, Elijah B., Providence, R. I. Pitman	395,206	Dec. 25	2301	590	45	1540
Benham, Elijah B., assignor of one-half to J. J. Frazer, Holyoke, Mass. Means for heating railway-cars	381,754	Apr. 24	2175	569	43	458
Benham, Whitman S., et al. (See Kelly, Wallace C., assignor.)						
Benjamin, Charles H. (See Fairfield and Benjamin.)						
Benjamin, Charles H., Boston, assignor to J. W. Brooks, trustee, Cambridge, Mass. Rotary cutter	388,523	Aug. 28	2035	548	44	985
Benjamin, Dana H., assignor to E. Hurlburt, Utica, N. Y. Washing-machine	394,672	Dec. 18	1427	372	45	1364
Benjamin, George H. (See Wilder and Benjamin.)						
Benjamin, George H., New York, N. Y. Pipe-coupling	376,061	Jan. 10	470	126	42	101
Benjamin, George H., New York, N. Y., assignor to Consolidated Coupling Company, of New Jersey. Spring car-bumper	379,528	Mar. 13	968	261	42	1156
Benjamin, George W. (See Ware and Benjamin.)						
Benjamin, Joseph E., Hubbell, Nebr. Churn	386,180	July 17	1244	331	44	259
Benjamin, Miriam E., Washington, D. C. Gong and signal chair for hotels, &c.	386,289	July 17	1413	373	44	290
Benkelman, Charles A. (See Jones, Henry M., assignor.)						
Benker, Christian, Pittsburg, Pa., assignor of one-half to J. S. McMaster. Water-elevator	389,831	Sept. 18	1557	412	44	1384
Benner, Lorenzo D., Peoria, Ill. Check-rower	388,013	Aug. 21	1241	337	44	828
Benner, Lorenzo D., Galesburg, Ill., assignor, by mesne assignments, to Union Paper Bag Machine Company, Philadelphia, Pa. Apparatus for and method of making paper bags	382,682	May 15	1224	317 318 319	43	763
Benner, Lorenzo D., Peoria, Ill., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Bag-machine	391,936	Oct. 30	2469	668 669 669	45	515
Benner, Willis, New York, N. Y. Shutter-worker	391,678	Oct. 23	2084	564 565	45	429
Bennett, Abner H., assignor of one-half to J. H. Guinn, Decatur, Tenn. Plow	391,576	Oct. 23	1951	525	45	402
Bennett, Andrew J. (See Westaway, Walter C., assignor.)						
Bennett, Arthur D. (See Warner and Bennett.)						
Bennett, Arthur W., and J. M. Millen, Fontanelle, Iowa. Railway-signal	380,165	Mar. 27	1940	517 518	42	1361
Bennett, Calvin H., assignor of one-half to J. J. Abercrombie and C. R. Herrick, Beloit, Kans. Fly-trap	394,906	Dec. 18	1830	474	45	1443
Bennett, David T., Trenton, N. J. Railway-rail	383,431	May 29	2322	616	43	990
Bennett, Delivan. (See Bennett, Dennis H., assignor.)						
Bennett, Dennis H., Allendale, assignor of one-fourth to D. Bennett, Shelby, Mich. Cutting apparatus for harvesters	394,441	Dec. 11	1046	273	45	1280
Bennett, Edward A., Weston, W. Va. Copy-holder	387,706	Aug. 14	773	198	44	727
Bennett, Edwin P., Philadelphia, Pa. Ice-cage for water-coolers	387,037	July 31	2328	604	44	523
Bennett, Emmett G., et al. (See Dennis, Andrew J., assignor.)						
Bennett, Emmett G., Franklin, Tenn. Back-band hook	387,849	Aug. 14	974	254	44	767
Bennett, Frank E., Philadelphia, Pa. Bustle	379,928	Mar. 27	1604	425	42	1296
Bennett, James C., and M. G. Bunnell, assignors to F. C. Austin, Chicago, Ill. Grading and ditching machine	394,907	Dec. 18	1831	474 475	45	1443
Bennett, John B., Indianapolis, Ind., assignor, by mesne assignments, to A. André, Beverly, Mass. Mechanical telegraph	390,642	Oct. 9	620	166	45	132

## INDEX OF PATENTS ISSUED FROM THE

Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Bennett, John H., Southbridge, Mass. Garment-supporter .....	389,918	Sept. 25	1774	453	44	1422
Bennett, Martin, Eureka, Cal. Handle for crosscut-saws .....	375,916	Jan. 3	252	69	42	53
Bennett, Orson W., Washington, D. C. Pressure-regulator for gas-machines .....	380,273	Mar. 27	2083	558	42	1391
Bennett, Orson W., Washington, D. C. Gas-saver .....	389,633	Sept. 18	1271	335	44	1326
Bennett, Orson W., Washington, D. C. Pressure-regulator for gas-burners .....	392,489	Nov. 6	461	116	45	682
Bennett, Orson W., assignor, by mesne assignments, to Standard Gas Machine and Portable Gas Lamp Company, Washington, D. C. Carbureting-lamp .....	378,647	Feb. 28	1943	516	42	900
Bennett, Phineas A., assignor of one-half to T. Bennett, Chicago, Ill. Sight-feed lubricator .....	390,584	Oct. 2	542	517	45	109
Bennett, Robert. (See Kindl, Fred H., assignor.)						
Bennett, Thomas. (See Bennett, Phineas A., assignor.)						
Bennett, Thomas G., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge-reloading implement .....	383,693	May 29	2700	713	43	1067
Bennett, Thomas G., assignor to Winchester Repeating Arms Company, New Haven, Conn. Magazine fire-arm .....	386,290	July 17	1415	373	44	290
Bennett, Walter E., assignor to Morley Button Sewing Machine Company, Boston, Mass. Shuttle and shuttle-operating mechanism for sewing-machines .....	384,230	June 12	584	159	43	1243
Bennett, Walter E., assignor to Morley Button Sewing Machine Company, Boston, Mass. Presser-foot for button-sewing machines .....	384,231	June 12	587	159	43	1244
Bennett, Walter E., assignor to Morley Button Sewing Machine Company, Boston, Mass. Stitch-forming mechanism for button-sewing machines .....	392,096	Oct. 30	2721	739	45	565
Bennett, Whitfield. (See Barker and Bennett.)						
Bennett, William H., Peru, Ind. Saw-mill dog .....	379,440	Mar. 13	834	225	42	1131
Benninghaus, Chauncey M. (See Robbins, Henry R., Jr., assignor.)						
Benninghaus, Chauncey M., Baltimore, Md. Indicator for hotels .....	380,166	Mar. 27	1942	518	42	1362
Benschoter, Charles W., Grand Rapids, Ohio. Gate .....	386,291	July 17	1416	374	44	290
Bense, William H. (See White, George A., assignor.)						
Bensinger, Adolph, Mannheim, Baden, Germany. Ornamenting celluloid surfaces .....	383,272	May 22	2084		43	941
Bensinger, Moses. (See Carney, Thomas, assignor.)						
Bensinger, Moses, et al. (See Carney, Thomas, assignor.)						
Benson, Elizabeth I. (See Benson and Stilwell, assignors.)						
Benson, George, Durham, England. Machine for cutting key-seats .....	388,946	Sept. 4	211	56	44	1112
Benson, Henry L., San Antonio, Tex., assignor to himself, S. Lindaur, and C. H. Dane, Deming, N. Mex. Ter. Boot .....	390,552	Oct. 2	504	132	45	101
Benson, James, Tascosa, Tex. Compound tool .....	390,433	Oct. 2	329	66	45	70
Benson, James D. (See White and Benson.)						
Benson, John J., Troy, N. Y. Barbed-wire chain for fences .....	391,502	Oct. 23	1852	496	45	380
Benson, Lyman L., and W. T. Stilwell; said Benson assignor to E. I. Benson, Kalamazoo, Mich. Sewer-ventilator .....	387,134	July 31	2685	704	44	550
Bent & Brothers, S. (See Pierce, William B., assignor.)						
Bent, George W., Hyde Park, Mass. Folding or mantel bed .....	392,178	Nov. 6	5	2	45	595
Bent, Richard M., New York, N. Y. Piano-case .....	389,436	Sept. 11	971	259	44	1265
Bentley, Edward M., New York, N. Y. Electric locomotive .....	377,329	Jan. 31	2179	575	42	448
Bentley, Edward M., New York, N. Y. Electric motor .....	377,230	Jan. 31	2179	575	42	449
Bentley, Edward M., New York, N. Y. Electrical agricultural system .....	382,941	May 15	1569	410	43	832
Bentley, Edward M., New York, N. Y. Electric railway system .....	385,787	July 10	620	178	44	141
Bentley, Edward M., New York, N. Y. Electric railway .....	385,902	July 10	862	228	44	177
Bentley, Edward M., New York, N. Y. Switch on overhead lines in electric railways .....	385,903	July 10	864	228	44	177
Bentley, Edward M., New York, N. Y. Electric railway .....	389,278	Sept. 11	738	187	44	1220
Bentley, Edward M., New York, N. Y. Electric railway .....	389,279	Sept. 11	741	188	44	1221
Bentley, Manton T. (See Atherton and Bentley.)						
Bentley, Roland, Dresden, and T. Ford, Longton, county of Stafford, England. Cut-off valve .....	380,474	Apr. 3	247	68	43	51
Bentley, Solomon P., assignor of three-fourths to J. S. Colomy and H. R. Soot, Springfield, and B. Tyler, Amboy, Minn. Car-compiling .....	391,732	Oct. 23	2163	584	45	444
Bentley, William, Bishop's Crossing, Quebec, Canada. Derrick .....	377,544	Feb. 7	294	74, 75	42	551
Benton, Francis E., Boston, Mass. Whip-socket .....	390,745	Oct. 9	767	203	45	150
Benton, Louis J., Alpine, N. Y. Nut-lock .....	382,789	May 15	1371	360	43	791
Bentz, George C. (See Farwell, Fay O., assignor.)						
Bentz, Harry, York, Pa. Electric meter .....	391,010	Oct. 16	1159	307	45	239
Bentz, Jacob F. (See Tebeau and De Long, assignors.)						
Benway, Eli W., assignor of one-half to B. F. Masterman, Independence, Kans. Lamp-chimney cleaner .....	385,439	July 3	162	44	44	33
Benz, Carl, Mannheim, Baden, Germany. Self-propelling vehicle .....	385,087	June 26	1877	479	43	1506
Benz, Carl, Mannheim, Baden, Germany. Driving-gear for velocipedes .....	386,798	July 31	2161	568	44	454
Benz, Carl, assignor to Benz & Co., Mannheim, Baden, Germany. Carburetor .....	382,585	May 8	1079	277	43	726
Benz & Co. (See Benz, Carl, assignor.)						
Benzie, Alexander, Brooklyn, N. Y. Drilling-tool .....	385,088	June 26	1878	480	43	1506
Berens, Theodore J., Cincinnati, Ohio. Child's cradle .....	391,292	Oct. 16	1566	415	45	316
Berg, Frank J., Dubuque, Iowa. Automatic fire-lighter .....	386,232	July 17	1334	352	44	275
Berg, Per Torsten, Braddock, Pa. Valve-seat for hot-blast stoves .....	392,179	Nov. 6	6	3	45	596
Bergendahl, Lewis J., Pendleton, Oreg. Railway-track clearer or snow-plow .....	379,441	Mar. 13	835	225	42	1131
Bergener, Charles, assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Tubular lantern .....	378,648	Feb. 28	1946	517	42	900
Bergener, Charles, assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Triangular tubular lamp .....	387,038	July 31	2528	665	44	523
Berger, Ambrose J. B., assignor to J. M. Dodge, Philadelphia, Pa. Chain conveyer for handling coal .....	391,223	Oct. 16	1465	390	45	298
Berger, Gustav, Stapleton, N. Y. Bell-ringing device for buoys and boats .....	383,552	May 29	2516	664	43	1026
Berger, Leopold, New York, and M. Paas, Brooklyn, N. Y. Station-indicator .....	392,304	Nov. 6	181	47	45	628
Berger, Lewis, Bay City, Mich. Adjustable reclining-chair .....	377,011	Jan. 31	1872	493	42	388
Berger Manufacturing Company. (See Berger, Wilson C., assignor.)						
Berger, William H., Philadelphia, Pa. Hand-truck .....	394,442	Dec. 11	1047	274	45	1280
Berger, William H., Philadelphia, Pa. Hand-truck .....	394,443	Dec. 11	1048	274	45	1280
Berger, Wilson C., assignor to Berger Manufacturing Company, Canton, Ohio. Eaves-trough .....	376,574	Jan. 17	1197	316	42	244
Berghausen, August, Elberfeld, Germany, assignor to E. Imhauser, Brooklyn, N. Y. Pole-indicator for electric conductors .....	376,281	Jan. 10	785	208	42	160
Berglin, Halvor, Minneapolis, Minn. Composition of metals .....	375,917	Jan. 3	254		42	53
Bergman, Claes. (See Bissell and Bergman.)						
Bergman, Edward P., Frankfort, N. Y. Electric switch .....	385,539	July 3	311	80	44	63

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dee.	Vol.	Page.
Bergman, Isaac, <i>et al.</i> (See Maldeis, Henry B., assignor.)						
Bergman, John, Galveston, Tex. Combination-lock	3-1,903	May 1	9	3	43	516
Bergman, John, Galveston, Tex. Lock	389,355	Sept. 11	842	215	44	1241
Bergman, Meyer, <i>et al.</i> (See Maldeis, Henry B., assignor.)						
Bergman, Michael, <i>et al.</i> (See Maldeis, Henry B., assignor.)						
Bergmann & Company. (See Bergmann and Dempster, assignors.)						
Bergmann & Company. (See Robb, James T., assignor.)						
Bergmann, Franz J., Neheim-on-the-Ruhr, Westphalia, Germany. Machine for making up-holsterers' nails	378,824	Feb. 28	2214	589 590	42	950
Bergmann, Frederick H. D. St. Louis, Mo. Cable-grip	376,627	Jan. 17	1293	340	42	262
Bergmann, Sigmund, New York, N. Y. Electric-lamp socket	389,280	Sept. 11	743	188	44	1221
Bergmann, Sigmund, New York, N. Y. Rheostat	395,116	Dec. 25	2156	556	45	1515
Bergmann, Sigmund, New York, N. Y., assignor to American Bell Telephone Company, of Massachusetts. Telephone-support	392,843	Nov. 13	991	254	45	793
Bergmann, Sigmund, New York, N. Y., and J. T. Dempster, Summit, N. J., assignors to Bergmann & Company, New York, N. Y. Electrical switch	376,976	Jan. 21	1814	477	42	369
Bering, James E., assignor to Chambers, Bering, Quinlan Company, Decatur, Ill. Check-row corn-planter	379,850	Mar. 20	1475	389	42	1261
Bering, James E., assignor to Chambers, Bering, Quinlan Company, Decatur, Ill. Check-row corn-planter	3-1,162	Apr. 17	1233	330 331	43	256
Berkeley, Edmund, Prince William County, Va. Shield	391,397	Oct. 23	1710	455	45	351
Berkey, Arista W. (See Pates, William S., assignor.)						
Berkey, Julius, Grand Rapids, Mich. Article of furniture	380,741	Apr. 10	657	181	43	140
Berkey, Julius, Grand Rapids, Mich. Making wooden bowls	380,742	Apr. 10	658	182	43	140
Berkey, Julius, and W. R. Fox, assignors to Furniture Caster Association, Grand Rapids, Mich. Furniture-caster	378,649	Feb. 28	1948	518	42	901
Berkshire, George W., Louisville, Ky. Flue-cleaner	389,634	Sept. 18	1273	336	44	1326
Berlin, George C., Del Norte, Colo. Tenoning-machine	382,791	May 15	1374	360	43	792
Berlin Machine Works. (See Carpenter, James E., assignor.)						
Berliner, Emile, Washington, D. C. Pneumatic hook	380,309	Apr. 3	5	1	43	3
Berliner, Emile, Washington, D. C. Producing records of sound	382,790	May 15	1372		43	791
Berliner Maschinenbau Actien-Gesellschaft, vormals L. Schwartz Kopff. (See Kaselowsky, Emil, assignor.)						
Bernard, Alfred F., Weatherford, Tex. Apparatus for loading wagons	393,499	Nov. 27	1941	508	45	995
Bernard, Frederick A., assignor of one-half to H. S. Readon, San Bernardino, Cal. Window-blind	394,553	Dec. 18	1219	318	45	1326
Bernard, William A., and B. W. Rhodes, Danville, Va. Stock-car	382,405	May 8	792	201 202	43	669
Bernardi, William C., Pittsburg, Pa. Rack for exhibiting hose or other goods	391,675	Oct. 23	2082	563	45	423
Bernauer, Albert. (See Heberling and Bernauer.)						
Bernhard, Louis, Bloomsburg, Pa. Music-leaf turner	387,707	Aug. 14	774	198	44	727
Bernheim, Edmond L., Paris, France. Telephonic, telegraphic, and signaling circuit	390,058	Sept. 25	1913	505	44	1462
Berning, Frank W., Ottawa, Ohio. Gate	382,068	May 1	266	76	43	506
Berninghaus, Eugene, Cincinnati, Ohio. Adjustable barber's chair	390,059	Sept. 25	1916	505	44	1462
Bernstein, Adolph, and A. Goldstein, assignors of one-half to J. Cohen, Pittsburg, Pa. Fire-escape	383,432	May 29	2323	616	43	990
Bernstein, Louis H. (See Bitterman and Bernstein.)						
Bernstein, Samuel, Chicago, Ill. Fire-back	393,959	Dec. 4	329	89	45	1135
Berrie, Robert B., Lexington, Mo. Fire place	3-8,173	Aug. 21	1520	405	44	877
Berry, Austin, Warden, Quebec, Canada. Automatic pneumatic car-lamp extinguisher	3-0,381	Apr. 3	115	33, 34	43	25
Berry, Austin, Warden, Quebec, Canada. Sleigh	389,869	Sept. 25	1637	434	44	1405
Berry, Henry. (See Miller and Berry.)						
Berry, Henry, assignor to Derby Silver Company, Shelton, Conn. Brush	384,206	Apr. 17	1372	367	43	283
Berry, Jasper M., Jr., Baltimore, Md. Stub-holder	376,062	Jan. 10	472	126	42	102
Berry, Jasper M., Jr., Baltimore, Md. Stub-holder. (Reissue)	10,905	Mar. 6	493	138	42	1059
Berry, John, assignor to National Needle Company, Springfield, Mass. Needle-grooving-machine	382,250	May 1	543	138 139	43	613
Berry, John H., Montreal, Quebec, Canada. Check-valve	378,917	Mar. 6	81	23	42	982
Berry, Joshua, assignor of one-half to F. C. Betts, Jonesborough, Ga. Grain-crado	382,624	May 1	216	57	43	553
Berry, Louis M., Reading, Pa. Steam-injector	378,281	Feb. 21	1417	370	42	787
Berry, Marcellus F., Brooklyn, N. Y. Temporary binder	392,462	Nov. 6	338	83	45	658
Berry, William F. (See Spaet, Berry, and Snoddy.)						
Berryhill, Albert, Pittsburg, Pa. Pipe-joint	393,684	Nov. 27	2225	583	45	1054
Berryman, Henry B. (See Munroe, Thomas W., assignor.)						
Bersch, John. (See Sligh, David G., assignor.)						
Berthel, Jules, Louisville, Ky. Cigarette-case	388,617	Aug. 28	2174	584	44	1012
Berthold, V. Maximilian, Cambridge, assignor to American Bell Telephone Company, Boston, Mass. Telephone	375,862	Jan. 3	177	49, 50	42	39
Bertling, Henry, Cincinnati, Ohio. Constructing cornices	379,265	May 29	2592	686	43	1044
Berton, Camille, Paris, France. Arc lamp	3-0,545	Apr. 3	362	104	43	74
Bertonneau, Louis L., New Orleans, La. Drawers	379,558	Mar. 20	1018	272	42	1174
Berwick, William, Fall River, Mass., and G. Sellers, Batley, county of York, England. Compound engine	390,434	Oct. 2	330	87	45	70
Bessenen, Charles J., assignor of one-half to C. Mandeville, Chicago, Ill. Trace-fastener	390,746	Oct. 9	767	204	45	159
Beasler, George J., <i>et al.</i> (See MacFarlane, John, assignor.)						
Besson, Auguste, Paris, France. Heating-stove	393,685	Nov. 27	2326	584	45	1054
Besson, Hyppolite, and E. N. Kent, London, county of Middlesex, England. Machinery for grinding, shaping, and polishing glass	393,811	Dec. 4	108	30	45	1093
Best, Martin L., Canton, Ohio. Street-lamp	392,844	Nov. 13	992	254	45	793
Best, Peter, Newark, N. J. Device for thawing frozen loads of coal, &c	384,417	June 12	865	225 226	43	1293
Best, William N., Los Angeles, Cal. Lifting-jack	383,854	June 5	9	3	43	1129
Best, Wilson L., Boston, Mass. Check-protector	377,138	Jan. 31	2051	537	42	423
Bestgen, John, Boston, Mass. Hair-clipper	390,336	Oct. 2	192	51	45	41
Bethea, Cade, Mobile, Tex. Bed-stay	388,111	Aug. 21	1399	376	44	856
Bethscheider, Andrew, Hebron, Nehr. Pruning implement	384,691	June 19	1144	302 303	43	1354
Bettendorf, William P., Davenport, Iowa. Machine for securing spokes in metal wheels	386,572	July 24	1835	484	44	383
Bettendorf, William P., Davenport, Iowa. Metallic wheel	383,553	May 29	2518	664	43	1027
Bettes, Alexander, Kansas City, Mo. Swing	377,663	Feb. 7	473	120	42	584
Bettes, Sephora L., Washington, D. C. Ruling attachment for blackboards						
Betts, Charles L., Brooklyn, N. Y., assignor of one-half to Climax Manufacturing Company, Chicago, Ill. Car-lamp	378,865	Mar. 6	7	3	42	968
Betts, Charles L., assignor to R. E. Dietz Company, New York, N. Y. Tubular lamp	381,461	Apr. 17	1751	468	43	357

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Betts, F. C. (See Berry, Joshua, assignor.)						
Betts, Lewis F., New York, N. Y. Metallic tube	390,553	Oct. 2	505	132	45	101
Betts, Lewis F., New York, N. Y. Making metallic tubes	390,554	Oct. 2	506	133	45	102
Betts, Lewis F., assignor to R. M. Betts, New York, N. Y. Tubular lantern	379,304	Mar. 13	641	174	42	1093
Betts, Lewis F., assignor, by mesne assignments, of one-half to R. E. Dietz Company, New York, N. Y. Reflector attachment for tubular lanterns	377,287	Jan. 31	2272	600	42	465
Betts, Lewis F., assignor of one-half to R. E. Dietz, New York, N. Y. Tubular lantern	381,755	Apr. 24	2178	569	43	459
Betts, Lewis F., assignor of two-thirds to R. E. Dietz Company, New York, and Steam Gauge and Lantern Company, Rochester, N. Y. Lantern-guard	384,821	June 19	1471	384	43	1417
Betts, Lewis F., New York, assignor of two-thirds to R. E. Dietz Company and Steam Gauge and Lantern Company, Rochester, N. Y. Tubular lantern or lamp	389,832	Sept. 18	1559	412	44	1384
Betts, Orrin S., Chicago, Ill. Spool-case	388,813	Sept. 4	8	3	44	1074
Betts, Robert J., Milton, Del., assignor of one-half to T. A. Connelly, Washington, D. C. Window-shade fixture	378,079	Feb. 21	1103	289	42	730
Betts, Rosa M. (See Betts, Lewis F., assignor.)						
Betz, Ernest, assignor of one-half to G. E. Hutchins, Washington, D. C. Cowl	391,503	Oct. 23	1853	496	45	380
Beversdorf, Louis, Jr., Luling, Tex. Animal-trap	385,788	July 10	681	178	44	141
Bevier, Henry B. (See Watson, William S., assignor.)						
Bevington, James H. (See Dillon and Bevington.)						
Box, Frederick, and E. F. Heunsch, Washington, D. C. Dump-cart	387,850	Aug. 14	975	254	44	767
Beÿer, Albin, assignor to E. J. Seyfert and H. Donner, Chemnitz, Saxony, Germany. Straight-knitting machine	391,011	Oct. 16	1160	308 309 310	45	239
Beyer, Emil. (See Nicklas and Beyer.)						
Beyerle, Joseph, Vallejo, assignor of one-half to W. F. Fountain, Oakland, Cal. Device for obtaining vertical lines	375,795	Jan. 3	98	29	42	23
Beynon, John R., assignor of one-half to J. B. Murphy, Watertown, Wis. Elevator and separator for mills	394,813	Dec. 18	1661	434	45	1412
Beynon, John R., assignor of one-half to J. B. Murphy, Watertown, Wis. Roller-mill	394,814	Dec. 18	1663	435	45	1413
Beynon, John R., assignor of one-half to J. B. Murphy, Watertown, Wis. Alarm for grain-elevators, &c.	394,815	Dec. 18	1664	435	45	1413
Biber, Albert, Des Moines, Iowa. Tongs	383,855	June 5	10	3	43	1122
Bichel, Christian E., Berlin, Germany. Manufacture of explosives	376,849	Jan. 24	1649		42	337
Bick, Otto G., St. Paul, Minn., assignor to Northwestern Tin-Ware Manufacturing Company. Jacketed can	379,757	Mar. 20	1312	350	42	1231
Bicket, James L. (See Stare, Diers, and Bicket.)						
Bickford, C. Elmer, Winchendon, Mass. Automatic wood planing and drilling machine	385,835	July 10	750	196 197	44	153
Bickford, Charles, Boston, Mass. Time-piece	384,737	June 19	1341	350	43	1392
Bickford, Charles, Boston, Mass. Clock	394,816	Dec. 18	1665	435	45	1413
Bickford, John C., and W. I. Stetson, deceased, Berlin, Mass.; C. T. Stetson administratrix of said W. I. Stetson. Last	388,618	Aug. 28	2176	585	44	1012
Bickford, John H., Salem, Mass. Combined station-indicator and signaling apparatus for railway-trains	381,669	Apr. 24	2054	537	43	435
Bickford, John H., Salem, Mass. Electrical bell or mechanical striker	381,823	Apr. 24	2290	596	43	479
Bickford, John H., assignor of one-third to S. F. Smith, Salem, Mass. Seal	394,531	Dec. 11	1179	307	45	1304
Bickley, Charles G., New York, N. Y. Reversing-switch and rheostat for electric circuits	389,356	Sept. 11	843	215 216	44	1242
Bicknell, Bettie H., London, Tenn. Bake-pan	389,357	Sept. 11	845	216	44	1242
Bicknell, Emery O. (See McDowell and Bicknell.)						
Bicknell, George J., Melrose, Mass. Carpet	390,435	Oct. 2	332	87	45	70
Biddison, Jeremiah, Moscow, Idaho Ter. Washing-machine	377,510	Feb. 7	249	60	42	542
Bidelman, Robert M., assignor to Petroleum Light and Heat Company, Adrian, Mich. Carbureting air	377,735	Feb. 14	580	149	42	619
Bidwell, Benson, Chicago, Ill. Insulation of cores of dynamo-electric machines	392,660	Nov. 13	714	180	45	737
Bidwell, John N. (See Buckland, Clarence E., assignor.)						
Bidwell, William T. (See Beauregard and Bidwell.)						
Bieber, Jacob, assignor of two-thirds to A. B. Bolton and C. W. Kast, Jackson, Mich. Hub-boring machine	376,063	Jan. 10	473	127 128	42	102
Biechely, Edward A., Canton, Ohio. Cheese-kettle	391,937	Oct. 30	2473	669	45	516
Bielmann, Otto, Jersey City, N. J. Vacuum evaporating apparatus	384,958	July 31	2421	636	44	502
Bien, Hermann M., Vicksburg, Miss. Automatic fan for furniture	385,695	July 10	543	142	44	113
Bierbach, Albert G., Milwaukee, Wis. Cable-railway system for street-cars	378,918	Mar. 6	81	24	42	982
Bierer, Everard. (See Estes, Charles D., assignor.)						
Bierhart, Herman J., assignor to C. C. Bradley, Syracuse, N. Y. Power-hammer	385,540	July 3	312	80	44	63
Biering, Edward J. (See Peetz and Biering.)						
Bigelman, Augustus, Troy, N. Y. Registering and canceling ballot-box	380,978	Apr. 10	1024	268	43	207
Bigelow Carpet Company. (See Skinner, Albert L., assignor.)						
Bigelow, David P., Earlville, Iowa. Nail-hammer	378,650	Feb. 28	1948	518	42	901
Bigelow, Hobart B., et al. (See Morton, William F., assignor.)						
Bigelow, John, Philadelphia, Pa. Hat-brim-curling machine	395,117	Dec. 25	2158	557	45	1516
Bigelow, John, Philadelphia, Pa. Hat-brim-curling machine	395,118	Dec. 25	2161	558	45	1516
Bigeon, Charles, Cincinnati, Ohio. Bed-bottom	377,368	Feb. 7	2	1	42	495
Biggin, Mary, Broadway, county of Derby, assignor to S. H., H., and C. Morley, W. Donne, J. Thomas, F. Goodyear, and T. Hill, London, England. Glove	380,079	Mar. 27	1828	466 487	42	1339
Bigham, Ambrose W. (See Bigham, Joshua R. and A. W.)						
Bigham, Joshua R. and A. W., Terrell, Tex. Hay-press	387,039	July 31	2530	665 666	44	524
Bignall, Burnett B., and R. A. Marsh, assignors to V. S. Bignall, St. Charles, Ill. Sectional jacket drive-well point	380,419	Apr. 3	162	46	43	33
Bignall & Keeler Manufacturing Company. (See Bignall, Moses C., assignor.)						
Bignall, Moses C., assignor to Bignall & Keeler Manufacturing Company, St. Louis, Mo. Pipe and nipple gripping chuck	393,093	Nov. 20	1342	350	45	869
Bignall, Viola S. (See Bignall and Marsh, assignors.)						
Bignell, William, Nebraska City, Nebr. Pavement	382,683	May 15	1228	319	43	764
Billingham, Francis, Brooklyn, N. Y. Reflector and lantern	390,835	Oct. 9	891	236	45	182
Billingham, Jethro. (See Covert and Billingham.)						
Billings, Arthur T. (See Billings, Avery W. and W. G., assignors.)						
Billings, Avery W. and W. G., Larned, assignors of one-third to A. T. Billings, Jetmore, Kans. Rotary engine	382,209	May 1	483	124 125	43	602
Billings, Charles E., Hartford, Conn. Beam-calipers	382,348	May 8	712	150	43	654
Billings, Charles E., Hartford, Conn. Commutator-bar for dynamo-electric machines	392,490	Nov. 6	462	116	45	682
Billings, George W. W., Oshawa, Ontario, Canada. Seeding-machine	378,758	Feb. 28	2100	554	42	928
Billings, Luther G., Washington, D. C. Type-writer cabinet	382,942	May 15	1571	410	43	833

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.-g.	Vol.	Page.
Billings, Luther G., Washington, D. C. Reed-organ stop-action	382,943	May 15	1573	{ 410 411	{ 43	893
Billings, Richard M., assignor of one-half to C. P. Starr, Owego, N. Y. Combined pen-holder and fountain	390,555	Oct. 2	507	133	45	102
Billings, William G. (See Billings, Avery W. and W. G.)						
Billingslea, Asa A., Cherry Grove, Ark., assignor of one-half to A. Childers. Adjustable double plow	385,294	June 26	2193	560	43	1570
Billon-Haller, Jean, Geneva, Switzerland. Musical box	388,947	Sept. 4	212	56	44	1113
Billson, John T., North Shields, county of Northumberland, assignor to himself and W. Cooper, Newcastle-upon-Tyne, England. Device for carrying chipping-hammers or other tools	377,664	Feb. 7	474	121	42	584
Billups, Samuel R., assignor of one-half to C. H. White, Baltimore, Md. Can for molasses, &c.	376,064	Jan. 10	474	128	42	102
Bilsborough, Thomas. (See Stubbs, Daniel H., assignor.)						
Binckley, Henry, Reading, Pa. Coupon-ticket rack	384,305	June 12	696	185	43	1263
Bindeman, Herman A., Chicago, Ill., assignor to Union Wire Mattress Company, of Illinois. Wire-unwinding apparatus	377,422	Feb. 7	117	24, 25	42	517
Binder, John W. (See Wilson and Binder.)						
Bindley, Edwin, <i>et al.</i> (See Lackner, Frederick, assignor.)						
Bindley, John, <i>et al.</i> (See Lackner, Frederick, assignor.)						
Binos, Robert, <i>et al.</i> (See Collins, William H., assignor.)						
Binford, Jason D., McClelland, Va. Plow-clevis	389,999	Sept. 25	1823	483	44	1443
Bingham, Edward W. (See Bingham, John E. and E. W.)						
Bingham, John E., Walla Walla, Wash. Ter., and E. W. Bingham, Portland, Oreg. Horse-shoe	382,131	May 1	374	97	43	582
Bingham, John E., Walla Walla, Wash. Ter., and E. W. Bingham, Portland, Oreg. Horse-shoe	383,694	May 29	2702	714	43	1067
Bingham, Solon, Conklingville, N. Y. Lamp-chimney cleaner	392,180	Nov. 6	7	3	45	596
Bingham, Theodore A. (See Patten and Bingham.)						
Bingman, Joseph H. (See Bender and Bingman.)						
Bink, Anthony, Stockton, Cal. Spring-vehicle	376,425	Jan. 17	993	260	42	205
Binkerd, Aaron T., Allegheny, assignor to D. C. White, Pittsburg, Pa. Leveling-instrument	393,879	Dec. 4	218	58	45	1113
Binkerd, Aaron T., Allegheny, assignor to D. C. White, Pittsburg, Pa. Gage-chisel for cutting hinge-recesses	393,880	Dec. 4	219	59	45	1113
Binkerd, Aaron T., Allegheny, assignor to D. C. White, Pittsburg, Pa. Chisel-gage	393,881	Dec. 4	220	59	45	1114
Binkley, Hiram D., Dundas, Ontario, Canada. Potato-digger	376,229	Jan. 10	717	191	42	147
Binks, Joseph, Chicago, Ill. Removing impurities from steam-boilers	382,508	May 8	955	242	43	701
Binus, Leedham, Philadelphia, Pa. Spindle-driving device for spinning-machines, &c.	380,784	Apr. 10	726	199	43	153
Binna, Leedham, Philadelphia, Pa. Belting	383,208	May 22	1985	521	43	923
Bioren, Frederick F., Newark, N. J. Cuff-button	376,282	Jan. 10	786	208	42	160
Bippart, Achill, Newark, N. J. Button	381,103	Apr. 17	1235	331	43	257
Birch, James C. (See Eaton and Birch.)						
Birch, James H., Plattsburg, Mo. Wire-stretcher	390,556	Oct. 2	508	133	45	102
Birch, James T. (See Stambaugh, David F., assignor.)						
Birch, William, Lower Broughton, Manchester, county of Lancaster, England. Roller for washing and dyeing machines	379,442	Mar. 13	836	226	42	1132
Bird, Horace G., Chicago, Ill. Axle-box	392,845	Nov. 13	993	255	45	793
Bird, John, Warren, Ill. Car-mover	384,502	June 12	998	260	43	1318
Bird, Joseph, Saxton, Pa. Apparatus for detecting leakage in furnace-blocks	382,792	May 15	1375	361	43	792
Bird, Joseph C., Rising Sun, Md. Sulky-cultivator. (Reissue.)	10,950	Sept. 18	1630	431	44	1398
Bird, Joseph C., Rising Sun, Md. Cultivator-spindle	392,533	Nov. 6	524	131	45	695
Birdsell Manufacturing Company. (See Sheets, Alfred T., assignor.)						
Birge, George K., G. W. Shamp, Buffalo, and C. F. W. Lehmann, New York, N. Y.; said Shamp and Lehmann assignors to said Birge. Routing-machine	376,134	Jan. 10	582	{ 155 156 584 5-5	{ 42 45	122 1055
Birkeland, Arian, Sacramento, Cal. Organ	393,686	Nov. 27	2228	5-5	44	33
Birkery, Cornelius, assignor of one-half to O. H. Jones, Hartford, Conn. Filter	385,440	July 3	162	44	44	33
Birkholz, Richard. (See Gray and Birkholz.)						
Birkholz, Richard. (See Gray, Birkholz, and Reynolds.)						
Birmingham Iron Foundry. (See Corey, James L., assignor.)						
Birih, John F., Nescopeck, assignor of one-half to R. Birth, Ross, Pa. Tree-protector	389,047	Sept. 4	349	92	44	1139
Birih, Robert. (See Birth, John F., assignor.)						
Bisbee, Charles R., <i>et al.</i> (See Earnest, Jacob T., assignor.)						
Bisbee, Clarence L., Brooklyn, N. Y. Gas-stove	393,094	Nov. 20	1343	351	45	869
Bischoff, Hugo. (See Mieg and Bischoff.)						
Bischoff, Hugo, Berlin, and A. Mieg, Leipzig, Saxony, Germany. Projectile	394,673	Dec. 18	1428	372	45	1364
Bishop, Adam. (See Ritter, Jacob S., assignor.)						
Bishop, Charles E., <i>et al.</i> (See Fox, Frank A., assignor.)						
Bishop, George W., Minneapolis, Minn. Balance-spring for window or other slides	377,735	Feb. 14	581	150	42	620
Bishop, James D., San Francisco, Cal. Micrometer-calipers	389,734	Sept. 18	1430	373	44	1358
Bishop, James D., San Francisco, Cal. Registering-meter for electric currents	389,870	Sept. 25	1638	434	44	1405
Bishop, Jason S., assignor of one-half to F. W. Higgins, Olean, N. Y. Propeller-wheel	381,104	Apr. 17	1236	{ 331 332	{ 43	257
Bishop, John J., assignor of one-third to H. Wood, Greenwood, Ind. Combined cooking and can-filling apparatus	383,792	May 29	2870	755	43	1098
Bishop, Joseph, Meriden, Conn. Steam-trap	376,850	Jan. 24	1650	432	42	337
Bishop, Joseph, assignor to himself and W. K. Dana, Westbrook, Me. Card-grinder	386,521	July 24	1766	466	44	369
Bishop, Louis J., Cleveland, Ohio. Cash-carrier	380,979	Apr. 10	1028	268	43	208
Bishop, Mary F., Bridgeport, Conn. Means for operating egg-beaters	384,674	June 19	1247	328	43	1375
Bishop, William, Brooklyn, N. Y. Pump water-closet	378,353	Feb. 21	1519	398	42	808
Biasegger, Julius A., New York, N. Y. Plane	385,221	June 26	2085	534	43	1549
Bissell Carpet Sweeper Company. (See Drew, Walter J., assignor.)						
Bissell, Charles H., Chicago, Ill. Curling-iron	379,443	Mar. 13	837	926	42	1132
Bissell, Charles H., Chicago, Ill. Hair-crimper	384,418	June 12	866	226	43	1294
Bissell, Frank S., Pittsburg, Pa. Grate	388,473	Aug. 28	1971	{ 528 529	{ 44	972
Bissell, Thomas A. (See Reiley, James, assignor.)						
Bissell, Thomas A., Buffalo, N. Y. Head-rest for sleeping-cars	378,948	Mar. 6	123	36	42	990
Bissell, Thomas A., Buffalo, N. Y. Railway-car	389,358	Sept. 11	846	{ 216 217	{ 44	1242
Bissell, Thomas A., and C. Bergman, Buffalo, N. Y. Railway-car	389,359	Sept. 11	848	{ 217 218	{ 44	1242
Bissell, Thomas A., and C. Bergman, Buffalo, N. Y. Railway-car	389,437	Sept. 11	972	260	44	1265



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr & G.	Vol.	Page.
Bissig, Vincent, Greenville, N. J. Vegetable-slicer.....	384,738	June 19	1344	351	43	1393
Bittenbender, John W., Knoxville, Iowa. Device for fastening honey-comb foundations.....	393,739	Dec. 4	5	2,3	45	1074
Bitterman, Bernard, and L. H. Bernstein, North Topeka, Kans. Bread-machine.....	383,938	June 5	147	43	43	1149
Bixler, Frank P., Fremont, Ohio. Barrel-tester.....	394,444	Dec. 11	1051	274	45	1281
Bizzozero, Camillus E. and E., West Quincy, Mass. Bitters.....	392,776	Nov. 13	895	.....	45	773
Bizzozero, Ernest. (See Bizzozero, Camillus E. and E.)						
Bjogstad, Frederick O., Watson, Minn. Wire-stretcher.....	378,036	Feb. 14	1040	272	42	710
Black, Alfred W., Traverse City, Mich. Planter.....	382,069	May 1	286	76	43	566
Black, C. A., et al. (See Davidson, Oris E., assignor.)						
Black, Charles R., Topeka, Kans. Saw-jointer.....	381,207	Apr. 17	1373	367	43	283
Black & Clawson Company. (See Clawson, Keller, and See, assignors.)						
Black, Henry A., assignor to A. H. Mulliken, Chicago, Ill. Lamp.....	382,210	May 1	485	125	43	603
Black, John, assignor of one-half to J. T. Raplee, New York, N. Y. Grain-drier.....	389,048	Sept. 4	349	92	44	1139
Black, John J., Cleveland, Ohio. Vehicle running-gear.....	392,712	Nov. 13	788	199	45	753
Black, John M., London, England. Numbering mechanism.....	381,105	Apr. 17	1238	332	43	257
Black, Joseph H., et al. (See Walters, Almer B., assignor.)						
Black, Joseph P., assignor to Hagood Plow Company, Alton, Ill. Cultivator.....	378,651	Feb. 28	1949	518	42	901
Black, Joseph W., and G. W. Stout, Hanover, Pa. Butter-printing machine.....	394,753	Dec. 18	1555	406	45	1392
Black, William M., Urbana, Ohio. Letter-box.....	391,293	Oct. 16	1567	{ 415 416 }	{ 45 45 }	{ 316 316 }
Blackall, Robert C. (See Campbell, Harry E., assignor.)						
Blackall, Robert C. (See Noyes, Augustus J., assignor.)						
Blackburn, Albert B., assignor of one-half to J. E. Ehrenbart, Springfield, Ohio. Railway-signal.....	376,362	Jan. 10	898	235	42	181
Blackburn, Albert B., assignor of one-half to E. F. Darby, Springfield, Ohio. Spring-seat for chairs.....	380,420	Apr. 3	163	46	43	34
Blackburn, Albert B., assignor of one-half to E. F. Darby, Springfield, Ohio. Cash-carrier.....	391,577	Oct. 23	1952	526	45	402
Blackburn, Frederick, Palmyra, assignor, by mesne assignments, to himself, F. S. Hovey, Beverly, N. J., and T. Merrick, Holyoke, Mass. Straw-braid-sewing machine.....	380,167	Mar. 27	1943	518	42	1362
Blackburn, Jacob E., Fredericktown, Ohio. Well or cistern cover.....	386,375	July 17	1528	405	44	312
Blackburn, Robert. (See Brooks, John C., assignor.)						
Blackburn, Samuel P., et al. (See Doten, Clark W., assignor.)						
Blackman, Albert L., Nashville, Tenn. Canal-lock.....	392,002	Oct. 30	2566	{ 696 697 698 }	{ 45 45 45 }	{ 533 533 533 }
Blackman, Ebenezer, Brooklyn, assignor, by mesne assignments, to Ansonia Brass and Copper Company and W. A. Hull, New York, N. Y. Suspending device.....	384,187	June 5	512	140	43	1220
Blackman, Fred. S., assignor of one-half to G. L. Blackman, Port Allegheny, Pa. Thill-coupling.....	387,620	Aug. 14	650	168	44	704
Blackman, G. L. (See Blackman, Fred. S., assignor.)						
Blackmer, Ammi, Minneapolis, Minn. Saw-sharpening machine.....	385,693	July 10	540	141	44	113
Blackmore, Henry S., Mount Vernon, N. Y. Manufacture of sodina.....	391,110	Oct. 16	1312	.....	45	268
Blackmore, James E., Grand Rapids, Mich. Stand for photographic cameras.....	390,199	Oct. 2	5	1	45	4
Blackmore, James E., Grand Rapids, Mich. Photographic camera.....	392,003	Oct. 30	2570	{ 698 699 }	{ 45 45 }	{ 534 534 }
Blackstone, Louis, Jersey City, N. J. Railway-switch.....	384,955	June 26	1661	432	43	1462
Blackstone, Sumner E., et al. (See Gay, Thomas J., assignor.)						
Blackwell, Josiah L., New York, N. Y. Current-collector for electric railways.....	388,247	Aug. 21	1628	436	44	900
Blackwell, Josiah L., New York, N. Y. Current-collector for electric railways.....	389,189	Sept. 11	596	152	44	1192
Blackwell, Josiah L., New York, N. Y. Contact device for electric railways.....	389,281	Sept. 11	744	189	44	1221
Blackwell, Josiah L., New York, N. Y. Electric-railway trolley.....	389,282	Sept. 11	745	189	44	1222
Blackwelder, Manly L., assignor of one-half to D. R. Hoover, Concord, N. C. Washing-machine.....	378,919	Mar. 6	83	24	42	982
Blades, Frederick J., et al. (See Dixon, John, assignor.)						
Blaine, George E., Dayton, Ohio, and E. Hill, Cambridge City, Ind., assignors to M. Kemper, trustee, Dayton, Ohio. Railway cross-tie and sleeper.....	380,274	Mar. 27	2085	558	42	1391
Blair, Andrew, Philadelphia, Pa. Tumbler-washer.....	388,248	Aug. 21	1629	436	44	900
Blair, Benjamin F. (See Fell and Blair.)						
Blair & Co., J. B. (See Blair, John B., assignor.)						
Blair, George F. (See Ingalls, Charles L., assignor.)						
Blair, George W., Pittsburg, Pa. Manufacture of lamp-chimneys.....	375,796	Jan. 3	99	29	42	23
Blair, Herbert S., Bucyrus, Ohio. Corn-husker.....	387,391	Aug. 7	289	74	44	627
Blair, John, New York, N. Y. Fountain-pen.....	386,448	July 24	1651	435	44	349
Blair, John A., Philadelphia, Pa., and W. C. Bush, Wilmington, Del. Cutting apparatus for harvesters.....	385,164	June 26	1985	508	43	1528
Blair, John B., assignor to J. B. Blair & Co., Chicago, Ill. Hand magneto-electric machine.....	391,224	Oct. 16	1467	391	45	298
Blais, Joseph, Duluth, Minn. Vehicle-wheel.....	380,852	Apr. 10	823	223	43	170
Blake, Francis, Weston, Mass. Switch-board for telephone-exchanges.....	392,403	Nov. 6	339	84	45	658
Blake, George W., assignor to Rutzler & Blake, New York, N. Y. Thermotic valve-controller.....	388,754	Aug. 28	2370	638	44	1048
Blake, Henry, Worcester, Mass. Mop-wringer.....	378,949	Mar. 6	124	36	42	991
Blake, Henry T., New Haven, Conn. Electrical tramway.....	383,273	May 22	2085	518	43	941
Blake, Henry T., New Haven, and C. Sterling, Bridgeport, Conn. Electrical tramway.....	383,274	May 22	2087	{ 548 549 }	{ 43 43 }	{ 941 941 }
Blake, Hiram, Keene, N. H. Book-holder.....	375,723	Jan. 3	3	1	42	3
Blake, John C. (See Sharpneck, Elhel L., assignor.)						
Blake, John H., Salt Lake City, Utah Ter. Ruler.....	393,846	Nov. 13	994	255	45	794
Blake, John L., assignor of two-thirds to J. J. Dunn and J. M. Cloud, Mobile, Ala. Single-tree-iron.....	394,445	Dec. 11	1051	275	45	1281
Blake, John W., assignor to United States Hoop and Machine Manufacturing Company, Jersey City, N. J. Machine for sawing hoops.....	392,943	Nov. 13	1122	291	45	818
Blake, Minna G., Vicksburg, Miss. Sewing-machine table.....	387,040	July 31	2531	666	44	524
Blake Pipe Company. (See Blake, Walter S., assignor.)						
Blake, Walter S., St. Louis, Mo. Tobacco-pipe bowl.....	387,135	July 31	2687	704	44	550
Blake, Walter S., assignor to Blake Pipe Company, St. Louis, Mo. Tobacco-pipe bowl.....	387,041	July 31	2532	666	44	524
Blakely, Caleb J., Janesville, Wis., assignor of one-third to B. F. Boyden, 2d, Foxborough, Mass. Burnishing-machine.....	392,944	Nov. 13	1123	292	45	819
Blakeman, John D., Smith's Grove, Ky. Trace-detacher.....	377,982	Feb. 14	967	252	42	696
Blakeney, George, assignor of one-half to C. H. Krippendorf, Cincinnati, Ohio. Moistening attachment for shoe-sewing machines.....	378,750	Feb. 28	2101	554	42	928
Blakeney, John W., New York, N. Y. Interior finishing for walls, ceilings, &c.....	392,902	Nov. 13	1067	276	45	809
Blakeslee, George G., Waterbury, Conn. Wire-drawing machine.....	382,861	May 15	1457	383	43	810
Blakeslee, Jared, Story City, Iowa. Can-opener.....	384,739	June 19	1344	351	43	1393



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Blakey, John. (See Denison, Richard, assignor.)						
Blakey, John, Leeds, England. Machine for cutting soles	392,255	Nov. 6	116	29, 30	45	616
Blaney, Edward, Jersey City, N. J. Automatic station-indicator	389,283	Sept. 11	746	{ 189 190 }	44	1222
Blancard, Christian, New York, N. Y. Die for making cluster settings	376,507	Jan. 17	1109	291	42	227
Blancard, Christian, New York, N. Y. Die for making diamond-settings	376,508	Jan. 17	1110	291	42	227
Blanchard, Helen A., Philadelphia, Pa. Corset-cord fastener	394,817	Dec. 18	1067	435	45	1414
Blanchard, Horace, assignor of one-third to E. H. Studley, Boston, Mass. Knapsack	385,657	July 3	485	125	44	94
Blanchard, James A., Brooklyn, N. Y. Composition for lining vessels	380,853	Apr. 10	824		43	171
Blanchard, Napoleon, assignor to himself and A. B. Daniels, Adams, Mass. Boiler-tube cleaner	390,060	Sept. 25	1917	506	44	1462
Blanchard, Thomas A., Appling, Ga. Plow	384,740	June 19	1345	351	43	1393
Blanchard, Virgil W., New York, N. Y. Refrigerating-can	385,993	July 10	973	{ 259 260 }	44	199
Blaney, William R., Swampscott, Mass. Trap	381,524	Apr. 24	1853	490	43	396
Blank, Henry F. (See Schwarzburg, Blank, and Altheide.)						
Blank, Henry F., and H. W. Schwarzburg, Quincy, Ill. Baling-press	387,486	Aug. 7	421	{ 110 111 }	44	655
Blankenmeister, Albert L. (See McHenry, Reuben A., assignor.)						
Blanchdale, John, Baltimore, Md., assignor to Richmond Locomotive and Machine Works, Richmond, Va. Locomotive	380,168	Mar. 27	1944	519	42	1363
Blasier, David J., Westerville, assignor of one-half to H. D. Hager, Rome, N. Y. Feathering paddle-wheel	385,232	June 26	2086	534	43	1549
Blaszkye, John, Cleveland, Ohio. Fire-proof composition	385,694	July 10	542		44	113
Blatchford, E. W. (See Hill, Christina C., assignor.)						
Blatchley, Ambrose, San Francisco, Cal. Boiler-feeder	384,119	June 5	410	114	43	1199
Blatchley, Washburn, Fox Lake, assignor of one-half to S. Brown, Kilbourn City, Wis. Thrashing-machine	386,292	July 17	1417	374	44	290
Bláthy, Otto T. (See Zipernowsky, Déri, and Bláthy.)						
Blatt, Edward C., Water Cure, Pa. Car-marker	391,679	Oct. 23	2086	565	45	429
Blazier, Oscar V., Gillette, N. J. Snap-hook	393,138	Nov. 70	1399	366	45	880
Bledsoe, William P., Carlock, assignor of one-half to J. B. Corbet, Cog Hill, Tenn. Cotton-planter	391,225	Oct. 16	1470	391	45	299
Blegen, Lars T., Martell, Wis. Saw-handle attachment	384,741	June 19	1347	352	43	1393
Bleichert, Adolf, assignor to A. Bleichert & Co., Gohlis, near Leipsic, Saxony, Germany. Grip for elevated wire-rope lines	380,982	Apr. 10	1032	{ 270 271 272 273 274 }	43	209
Bleichert, Adolf, assignor to A. Bleichert & Co., Gohlis, Saxony, Germany. Coupling device for wire ropes	380,983	Apr. 10	1035	274	43	210
Bleichert, Adolf, assignor to A. Bleichert & Co., Gohlis, Saxony, Germany. Rail for elevated wire-rope lines	380,984	Apr. 10	1036	274	43	210
Bleichert & Co., Adolf. (See Bleichert, Adolf, assignor.)						
Bless, James F., Newark, N. J. Sad-iron with removable handle	379,044	Mar. 6	268	78	42	1016
Blessing, James H., Albany, N. Y. Making dry-sand cores	379,672	Mar. 20	1199	315	42	1206
Blessing, James H., Albany, N. Y. Water-purifying apparatus	379,673	Mar. 20	1190	315	42	1206
Blessing, Oskar, Rendsitz, Saxony, Germany. Tram-car	391,774	Oct. 30	2217	{ 600 601 }	45	466
Blevens, Nathan W., assignor of one-half to W. D. Trehwitt, Aurora, Tex. Wagon-axle	382,211	May 1	486	125	43	603
Blickensderfer, George C., Stamford, Conn. Conveyor apparatus	381,322	Apr. 17	1536	{ 414 415 }	43	316
Blickensderfer, George C., and J. K. Hallock, Erie, Pa., assignors to said Blickensderfer, trustee. Electric elevator	381,492	Apr. 17	1796	478	43	366
Blickensderfer Machine Company. (See Blickensderfer, Ulric, assignor.)						
Blickensderfer, Ulric, assignor to Blickensderfer Machine Company, Chicago, Ill. Ditching-machine	384,419	June 12	867	226	43	1204
Blincoe, Aloysius G., Loretto, Ky. Bag holder and fastener	390,643	Oct. 9	621	166	45	132
Blinn, Marcus E., Belle Plain, N. J. Lamp-extinguisher	386,121	July 17	1245	332	44	259
Bliss, Abel H., Chicago, Ill. Pulverizer	377,288	Jan. 31	2273	{ 600 601 }	42	465
Bliss Company, E. W. (See Hart, Charles L., assignor.)						
Bliss Company, E. W. (See Leavitt, Frank M., assignor.)						
Bliss, Edward N., and J. F. Middleton, Newark, N. J. Automatic electric photographing apparatus	378,426	Feb. 28	1624	427	42	834
Bliss, Edward N., and J. F. Middleton, Newark, N. J. Camera-shutter	386,449	July 24	1652	436	41	349
Bliss, Harry I., Philadelphia, Pa. Preserving fruits, &c	378,999	Mar. 6	206		42	1005
Block, Carl, Merrill, Wis. Horse-collar	388,014	Aug. 21	1243	337	44	828
Block, Gustav H., Penze, county of Surrey, England. Apparatus for reproducing copies of writings, drawings, and the like	392,777	Nov. 13	806	228	45	773
Block, Louis, New York, N. Y. Gas compressing and refrigerating apparatus	390,836	Oct. 9	893	236	45	182
Block, Louis, assignor to De La Vergne Refrigerating Machine Company, New York, N. Y. Separating-tank for refrigerating-machines	389,494	Sept. 11	1048	279	44	1279
Block, William, St. Petersburg, Russia. Fire-escape	383,613	May 29	2593	686	43	1044
Blodgett, James, Coldwater, Mich. Fence-making machine	389,540	Sept. 18	1115	294	44	1299
Boelde, Victor G., Baltimore, Md., assignor of one-half to J. Bancroft, Wilmington, Del. Tinting fabrics	394,446	Dec. 11	1052		45	1281
Boelde, Victor G., Baltimore, Md., assignor of one-half to J. Bancroft, Wilmington, Del. Dyeing	394,447	Dec. 11	1054		45	1281
Boelde, Victor G., Baltimore, Md., and J. Bancroft, Christiana, Del. Tinting or finishing cotton fabrics	394,448	Dec. 11	1055		45	1281
Boedel, Jacob, Kansas City, Kans. Draft attachment for harness	394,051	Dec. 4	463	125	45	1160
Bloemeke, Richard W., Newark, N. J. Copy-holder	394,449	Dec. 11	1056	275	45	1281
Bloesser, Rudolph, Scranton, Pa. Bottle-stopper	379,149	Mar. 6	413	117	42	1044
Blom, Frans L., New York, N. Y. Ladder fire-escape	382,862	May 15	1459	3-3	43	810
Blom, James G., Watson, Minn. Fanning-mill	392,713	Nov. 13	799	200	45	753
Blondel, Jules A., Sioux City, Iowa. Registering device for measuring faucets	382,944	May 15	1574	411	43	833
Blood, Anson J., and W. J. Cole, Red Oak Junction, Iowa. Carbon slating	392,305	Nov. 6	182	47	45	628
Blood, Arthur R., Warren, B. H. Blood, and H. E. Blood, deceased, (B. R. Blood, administrator.) Ludlow, Pa.; said B. H. Blood assignor to said Arthur R. Blood. Apparatus for the manufacture of lamp-black	387,487	Aug. 7	425	111	44	656
Blood, Bryant H. (See Blood, Arthur R., B. H., and H. E.)						
Blood, Erastus R., administrator. (See Blood, Arthur R., B. H., and H. E.)						
Blood, Homer E. (See Blood, Arthur R., B. H., and H. E.)						
Blood, Joseph W., Minneapolis, Minn., assignor of one-half to Plano Manufacturing Company, Plano, Ill. Grain-binder	390,436	Oct. 2	332	87, 88	45	70

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Bloom, Joseph H. (See Bloom, Nicklas H. and J. H.)						
Bloom, Nicklas H. and J. H., Charles City, Iowa. Running-gear for vehicles	382,406	May 8		202	43	670
Bloom, Nicklas H. and J. H., Charles City, Iowa. Bob-sleigh	390,747	Oct. 9	794	204	45	159
Bloomberg, William, New York, N. Y. Clasp	382,793	May 15	1376	361	43	792
Bloomfield, Samuel, and C. F. Clark, assignors to F. E. Wright and C. H. Ward, Lynn, Mass. Seam-rubbing machine						
Bloomingdale, Joseph B., New York, N. Y. Gas key and lighter	393,351	Nov. 27	1716	454	45	952
Blossom, George D., Fulton, N. Y. Stove or furnace	375,918	Jan. 3	254	69	42	53
Blount, John G., Boston, Mass. Safety water-gage	378,161	Feb. 21	1231	324	42	753
Blue, Dennis S., and L. Halter, Fremont, Ohio. Cultivator	391,012	Oct. 16	1165	310	45	240
Blue, Louis F., Marysville, Ohio, assignor to Van Wagoner & Williams Company, New York, N. Y. Sash-lifting hook	382,945	May 15	1575	411	43	833
Blum, Charles A., Michigan City, Ind. Refrigerator	393,533	Nov. 27	2001	523	45	1009
Blum, George, assignor to L. H. Bolles, Newark, N. J. Powder-filler	385,089	June 26	1879	480	43	1506
Blum, Gumby S., Jr. (See Phillips and Blum.)	388,249	Aug. 21	1631	436	44	900
Blum, Gumby S., Jr., and J. A. Phillips, Baltimore, Md. Button						
Blume, William, Scranton, Pa. Fifth-wheel for vehicles	377,446	Feb. 7	148	33	42	523
Blumenkrohn, Adolph, New York, N. Y. Button	376,178	Jan. 10	645	172	42	135
Blumer, Jacob. (See Sabotka, Blumer, and Davis.)	379,000	Mar. 6	207	56	42	1005
Blumell, William J., New York, N. Y. Scaffold-holder						
Blüthner, Ferdinand J., Jr., Leipzig, Saxony, Germany. Piano-forte attachment	391,111	Oct. 16	1313	350	45	268
Blydenburgh, Charles M., Riverhead, N. Y. Vehicle-spring	395,029	Dec. 25	2017	521	45	1488
Blydenburgh, Charles M., Riverhead, N. Y. Vehicle-seat	380,169	Mar. 27	1946	510	42	1363
Blydenburgh, Charles M., Riverhead, N. Y. Vehicle-spring	380,170	Mar. 27	1947	519	42	1363
Blydenburgh, Charles M., Riverhead, N. Y. Vehicle	383,339	May 22	2172	574	43	957
Blythe, George W., Ashland, Mo. Curry-comb	304,329	Dec. 11	888	234	45	1251
Boalt, John H. (See Lane, Charles C., assignor.)	386,573	July 24	1836	485	44	383
Boardman, Alphonso F., assignor, by mesne assignments, to S. J. Boardman, Brooklyn, N. Y. Fishing-reel						
Boardman, Sarah J. (See Boardman, Alphonso F., assignor.)	384,672	June 19	1244	328	43	1374
Boardman, Wallace, Harrisonville, Mo. Hame-tug						
Bohenmyer, C. F. (See Smith, Carl C., assignor.)	392,306	Nov. 6	183	47	45	628
Bobrick, Gabriel A., Boston, Mass., assignor, by mesne assignments, to Coupon Envelope Company, Portland, Me. Envelope						
Bocandé, Olivier B., Asnières, France, assignor to Lartigue Railway Construction Company, (limited,) London, England. Turn-table switch for single-line elevated railways	380,616	Apr. 3	467	132	43	95
Boccard, Francis, Oakland, Cal. Windmill	391,294	Oct. 16	1568	416	45	316
Bock, Adam, Murfreesborough, Tenn. Running-gear for vehicles	385,401	July 3	97	26, 27	44	21
Bocks, Fritz, Barmen, Prussia, Germany. Machine for making buttons	388,524	Aug. 28	2036	548	44	985
Boda, William J., Dayton, Ohio. Finishing of house interiors	380,980	Apr. 10	1029	269	43	208
Bodine, William I. A. (See Elliott, John R., assignor.)	385,233	June 26	2088	535 536	43	1550
Bodycomb, Rosser, Wilkes-Barre, Pa. Flexible pipe-coupling						
Bodycomb, Rosser, Wilkes-Barre, Pa. Flexible pipe-coupling	388,112	Aug. 21	1400	376	44	856
Boeckstiegel, Louis F. (See Witthoefft, William, Jr., assignor.)	393,139	Nov. 20	1400	366	45	881
Boegen, John E., and C. A. Tepoorten, Chicago, Ill. Cable system for draw-bridges	385,743	July 10	617	161	44	128
Boehm, David J., and C. F. Reed, New York, N. Y., assignors to North American Cigar Machinery Company of the City of New York. Cigar-bunching machine	384,556	June 12	1069	279 280 281	43	1331
Boehncke, Max A. T., assignor to Continuous Kiln Company, Omaha, Nebr. Continuous brick-kiln						
Boehncke, Max A. T., and H. Rohwer, assignors to Continuous Kiln Company, Omaha, Nebr. Continuous brick-kiln	392,985	Nov. 20	1200	312	45	841
Boehning, Andrew C. and W. F. Minneapolis, Minn. Dust and shavings collector	392,984	Nov. 20	1198	311	45	841
Boehning, William F. (See Boehning, Andrew C. and W. F.)	375,983	Jan. 3	352	94, 95	42	72
Boeklen, Reinhold, Brooklyn, N. Y. Manufacturing water-gas						
Boeklen, Reinhold, Brooklyn, N. Y. Gas-motor	378,490	Feb. 28	1726	455	42	857
Boekler, Robert C., Mankato, Minn. Sash-holder	384,673	June 19	1246	328	43	1374
Boerner, Emil C., assignor to W. E. Ward, Port Chester, N. Y. Shaping nut-blanks	385,904	July 10	865	228	44	178
Boerner, Emil C., assignor to W. E. Ward, Port Chester, N. Y. Machine for making nut-blanks	395,030	Dec. 25	2018	521	45	1489
Boerner, Emil C., assignor to W. E. Ward, Port Chester, N. Y. Machine for making nut-blanks	395,031	Dec. 25	2019	521	45	1489
Boettner, Charles W., assignor of one-half to H. H. Gilchrist, Little River, Kans. Floor-clamp	395,032	Dec. 25	2022	522	45	1489
Bogardus, Egbert E. (See Huckans, John, assignor.)	389,919	Sept. 25	1715	453	44	1422
Bogardus, Hudson, Newark, N. J. Toilet-cabinet or other wooden structure						
Boger, William P. (See Lightham, Joseph, assignor.)	391,013	Oct. 16	1166	311 312	45	240
Bogert, John L., Flushing, N. Y. Lathe for turning axles						
Boggess, James S. (See Harden and Grant.)	380,785	Apr. 10	727	199 200	43	153
Boggis, Herbert J., assignor of one-half to R. H. Boggis, Cleveland, Ohio. Cork-extractor						
Boggis, Robert H. (See Boggis, Herbert J., assignor.)	383,093	May 22	1827	479	43	891
Boggs, Joseph O., assignor of one-fourth to W. A. Middleton and W. T. Cornman, Harrisburg, Pa. Measuring-vessel						
Bogle, Charles L. (See Adelsperger, Charles C., assignor.)	377,369	Feb. 7	3	1	42	495
Bohannon, Joseph L., Frankfort, Ky. Sash-cord fastener						
Bohannon, Wilson, Brooklyn, N. Y. Night-latch	388,814	Sept. 4	10	3	44	1074
Bohler, John J., Westfield, Mass. Whip-lash attachment	377,983	Feb. 14	968	252	42	696
Böhm, Otto, Stuttgart, Württemberg, Germany. Automatic temperature-regulator	375,984	Jan. 3	354	95	42	72
Bohmann, Joseph, Chicago, Ill. Violin-bow	388,250	Aug. 21	1633	437	44	901
Bohmeyer, Carl, Halle-on-the-Saale, Prussia, Germany. Secondary electric-clock movement	390,279	Oct. 2	110	31	45	25
Bohn, Abraham S. (See Fehrer, Joseph, assignor.)	386,103	July 17	1139	303	44	237
Bohn, René, Ludwigshafen-on-the-Rhine, Bavaria, assignor to Badische Anilin and Soda Fabrik, Mannheim, Germany. Dyeing animal textile fabrics with naphthazarin						
Bohuert, J. A. (See Kight, William K., assignor.)	379,150	Mar. 6	414		42	1044
Bohren, Ulrich, Hoboken, N. J. Pen or lead holder						
Boice, James A., Nevada, Mo. Carpet-stretcher	387,042	July 31	2532	666 667	44	524
Boisselier, Richard W., St. Louis, Mo. Street and station indicator	392,097	Oct. 30	2724	740	45	565
	394,052	Dec. 4	466	125	45	1160

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Boissonnet, Louis, St. Vallier, France. Porcelain-kiln.....	383,695	May 29	2703	{ 714 715 }	43	1067
Boivin, Guillaume, Montreal, Quebec, Canada. Sole for boots or shoes .....	393,140	Nov. 20	1401	{ 366 367 }	45	881
Bokenkotter, John S., Norwood, Ohio. Track-brake for cars .....	376,363	Jan. 10	899	236	42	181
Böcklen, Otto, Stuttgart, Wurtemberg, Germany. Roofing .....	394,450	Dec. 11	1057	275	45	1282
Boland, Chaudo M., New York, N. Y. Glove-sewing machine .....	392,181	Nov. 6	9	3	45	596
Boland, John, assignor of two-thirds to W. B. and J. M. Deck, Raymond, Ill. Barrel-roller .....	379,851	Mar. 20	1477	390	42	1261
Boldt, Friedrich W. A., assignor to Boldt & Vogel, Hamburg, Germany. Machine for branding corks, &c. ....	377,665	Feb. 7	475	{ 121 122 }	42	585
Boldt & Vogel. (See Boldt, Friedrich W. A., assignor.)						
Bole, William A., assignor to Westinghouse Machine Company, Pittsburg, Pa. Governor .....	382,450	May 8	865	921	43	683
Boleman, Pamela M., New York, N. Y. Catamenial sack .....	393,882	Dec. 4	221	59	45	1114
Boles, Warren H., Syracuse, N. Y. Burnisher .....	378,760	Feb. 28	2102	{ 554 555 }	42	928
Bolick, Jerome, Conover, N. C. Wheel .....	376,938	Jan. 24	1766	464	42	360
Boll, August, assignor to E. S. Torrey, Berlin, Germany. Device for making plumbers' traps .....	384,956	June 26	1662	432	43	1462
Boller, George C. (See Waldron and Boller.)						
Bolles, John E. (See King, Henry N., assignor.)						
Bolles, John H. (See Roe, Alpheus E., assignor.)						
Bolles, Lillie H. (See Blum, George, assignor.)						
Bollinger, Daniel, New Madison, Ohio. Horse hay-rake .....	390,437	Oct. 2	334	98	45	71
Bollmann, Louis, Vienna, Austria-Hungary. Machine for sewing bags .....	380,981	Apr. 10	1631	{ 269 270 }	43	208
Bolmer, Thomas H., New York, N. Y. Utilizing gaseous explosions as a motive force .....	379,674	Mar. 20	1192	316	42	1206
Bolt, Joseph, assignor to himself and J. T. Deibert, Schuylkill Haven, Pa. Railway-gate .....	378,761	Feb. 28	2103	555	42	929
Bolton, Alfred B., et al. (See Bieber, Jacob, assignor.)						
Bolton, Andrew C., Brooklyn, N. Y. Machine for hinging boxes .....	379,358	Mar. 13	712	194	42	1107
Bolton, Frank T. (See Temple and Bolton.)						
Bolton, Gideon S., et al. (See Dunn, William, assignor.)						
Bolton, James, Glen Spey, N. Y. Feeding mechanism for sewing-machines .....	376,283	Jan. 10	787	{ 298 299 }	42	161
Bolton, James, Glen Spey, N. Y. Oscillating shuttle-driver for sewing-machines .....	376,284	Jan. 10	789	299	42	161
Bolton, James, Glen Spey, N. Y. Sewing-machine stand .....	380,171	Mar. 27	1948	520	42	1363
Bolton, James, Glen Spey, N. Y. Driving mechanism for rotary sewing-machine shuttles .....	390,644	Oct. 9	622	166	45	132
Bolton, James, New York, N. Y. Sewing-machine .....	376,285	Jan. 10	791	210	42	161
Bolton, James, New York, N. Y. Shuttle-operating mechanism for sewing-machines .....	376,364	Jan. 10	900	236	42	181
Bolton, James, New York, N. Y. Take-up for sewing-machines .....	389,788	Sept. 18	1500	395	44	1373
Bolton, James, New York, N. Y. Belt removing and replacing device for sewing-machines .....	389,789	Sept. 18	1502	395	44	1373
Bolton, James M., Springfield, Ill. Stand and cutting-knife for paper rolls .....	386,622	July 24	1896	501	44	396
Bolton, Lucy C., Peoria, Ill. Varnish for finishing wood .....	377,797	Feb. 14	711		42	646
Boluss, Alfred R., Norwood, Ohio. Air-brake .....	382,749	May 15	1311	344	43	780
Boluss, Clarence W., Norwood, Ohio. Hose-coupling .....	379,845	Mar. 20	1465	387	42	1259
Boman, Claes W., New York, N. Y. Cigar-rolling machine .....	388,174	Aug. 21	1521	{ 405 406 }	44	878
Boman, Claes W., New York, N. Y. Cigar rolling or wrapping machine .....	393,609	Nov. 27	2113	{ 552 553 }	45	1031
Boman, Claes W., assignor to Eagle Pencil Company, New York, N. Y. Pencil-sharpener .....	382,132	May 1	376	98	43	522
Boman, Claes W., assignor to Eagle Pencil Company, New York, N. Y. Holder for pencil-leads, &c. ....	388,015	Aug. 21	1244	338	44	829
Boman, Claes W., assignor to Eagle Pencil Company, New York, N. Y. Lead or crayon holder .....	393,812	Dec. 4	110	31	45	1093
Boman, Claes W., assignor to Eagle Pencil Company, New York, N. Y. Lead or crayon holder .....	394,053	Dec. 4	469	126	45	1161
Boman, Claes W., assignor to Eagle Pencil Company, New York, N. Y. Lead or crayon holder .....	394,054	Dec. 4	470	126	45	1161
Bommer, Lorenz, Brooklyn, N. Y. Spring-hinge .....	383,554	May 29	2519	664	43	1027
Bommer, Lorenz, Brooklyn, N. Y. Spring-hinge .....	383,555	May 29	2520	665	43	1027
Bon, John T., Syracuse, N. Y. Folding table .....	386,450	July 24	1653	436	44	349
Bon, Leopold, Guantánamo, Cuba. Machine for cutting sugar-cane .....	385,234	June 26	2091	536	43	1550
Bond, Catherine A., Seneca, N. Y. Car-coupling .....	385,994	July 10	975	260	44	199
Bond, Edwin H., et al. (See Herndon, George P., assignor.)						
Bond Furniture Improvement Company. (See Bond, Nathan O., assignor.)						
Bond, Joseph, Buffalo, N. Y. Radiator .....	376,766	Jan. 24	1519	400	42	313
Bond, Nathan O., Fairfax Court-house, Va., assignor to Bond Furniture Improvement Company, Washington, D. C. Wash-stand bowl .....	382,251	May 1	550	139	43	614
Bond, William A., Philadelphia, Pa. Stopper for bottles .....	388,525	Aug. 28	2037	548	44	985
Bonehill, Robert, assignor of one-half to A. M. Beinke & Co., St. Louis, Mo. Furnace for smelting and reducing ores .....	387,043	July 31	2535	667	44	524
Bonfield, John, Chicago, Ill. Police patrol-wagon .....	379,266	Mar. 13	580	160	42	1081
Bongart, Michael. (See Kamman, George H., assignor.)						
Bonham, Louis A., St. Francis, Wis. Crank-plate for bolster-springs .....	392,307	Nov. 6	184	48	45	628
Bonham, William P. (See Collehon and Bonham.)						
Bonicard, Jean, Langon, Gironde, France. Steam-engine .....	388,755	Aug. 28	2372	{ 638 639 }	44	1049
Bonney, John J. (See Gridley, Henry H., assignor.)						
Bonsack, James A., Bonsacks, assignor to Bonsack Machine Company, Lynchburg, Va. Printing attachment for cigarette-machines .....	377,447	Feb. 7	149	{ 33 34 35 }	42	523
Bonsack Machine Company. (See Bonsack, James A., assignor.)						
Bonte, Philipp, Chicago, Ill. Acidometer .....	383,433	May 29	2324	616	43	990
Bontems, Blaise, Paris, France. Apparatus for aerial navigation .....	381,106	Apr. 17	1242	{ 333 334 }	43	257
Bonwill, William G. A., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dental plugger .....	377,984	Feb. 14	969	{ 252 253 }	42	697
Bonwill, William G. A., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Dental plugger .....	378,920	Mar. 6	84	24	42	982
Bookman, Henry J. (See Constantin, Henry C., assignor.)						
Bookman, Morris, et al. (See Querol y Delgado, Emilio, assignor.)						
Bookwalter, John W. (See Robert, Gustave L., assignor.)						
Boomer, George B., Mount Pleasant, N. Y. Screw-bearing for presses .....	378,950	Mar. 6	125	36	42	991
Boomer, George B., Mount Pleasant, N. Y. Press .....	385,541	July 3	313	80, 81	44	63
Boone, Annie L., San Francisco, Cal. Gas-light shield and reflector .....	381,323	Apr. 17	1538	415	43	316

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Boone, Ladson L. (See Corder, Luther R., assignor.)						
Boore, Lewis, assignor to T. H. Meyer, Jr., J. F. Diehl, C. P. Feuchter, and J. E. Haas, Buffalo, N. Y. Device for raising or lowering pipe.....	375,985	Jan. 3	355	95	42	72
Boorum & Pease. (See Lipman, Lewis A., assignor.)						
Boot and Shoe Sole Laying Company. (See Smith, Aaron F., assignor.)						
Booth, Ebenezer H., Kirkwood, N. Y. Running-gear for vehicles.....	377,666	Feb. 7	476	123	42	585
Booth, Ebenezer H., Kirkwood, N. Y. Lug-bar for spring-vehicles.....	377,985	Feb. 14	971	253	42	697
Booth, Emmons R., Kirkwood, and J. R. Williams, St. Louis, Mo. Roll-paper holder and cutter.....	379,444	Mar. 13	839	227	42	1132
Booth, Emmons R., Kirkwood, and J. R. Williams, St. Louis, Mo. Paper-cutter.....	394,451	Dec. 11	1059	{ 275 276 }	45	1282
Booth, George W., and G. W. Dawson, Guntown, Miss. Chicken-coop.....	390,557	Oct. 2	509	133	45	102
Booth, Henry L., Pulaski, Tenn. Gate-latch.....	390,645	Oct. 9	623	166	45	132
Booth, Henry P., Chippewa Falls, Wis. Dental matrix.....	388,619	Aug. 28	2177	585	44	1012
Booth, Henry P., Chippewa Falls, Wis. Dental matrix.....	388,620	Aug. 28	2178	585	44	1012
Booth, James, Birmingham, county of Warwick, England. Sole for boots or shoes.....	385,402	July 3	98	27	44	21
Booth, James, assignor of one-half to J. H. Moore, Taunton, Mass. Window-jamb.....	386,182	July 17	1246	332	44	259
Booth, John. (See Landon, Edwin R., assignor.)						
Booth, John, Central Falls, R. I. Bearing for the journals of lower drawing-rollers in spinning-machines.....	384,344	June 12	759	199	43	1273
Booth, John, Central Falls, R. I. Step for spinning-spindles.....	388,392	Aug. 28	1861	497	44	950
Booth, John H., and S. W. Beard, Providence, Ky. Device for preventing animals from jumping fences.....	376,065	Jan. 10	476	128	42	102
Booth, Quentin W., Rochester, N. Y. Leather-turning machine.....	385,497	July 3	248	63, 64	44	50
Booth, William. (See Giles and Booth.)						
Boothroyd, Isaac W. (See Renouf and Boothroyd.)						
Booze, Charles, Buffalo, N. Y. Adjustable garden-hose and pipe supporter.....	381,167	Apr. 17	1243	334	43	258
Borchert, Oscar, Jersey City, N. J. Garment-stand.....	393,960	Dec. 4	330	89, 90	45	1135
Borden, Charles F. (See Waite and Brown, assignors.)						
Borden, Parker. (See Carr and Borden.)						
Borden, Parker, <i>et al.</i> (See Shepard, William P., assignor.)						
Borden, Wilbur H., Sheridan, Mich. Chain-coupling for stump-extractors.....	382,451	May 8	866	221	43	683
Boreham, Robert G., assignor of one-third to H. Kaltenbach, St. Louis, Mo. Ornamental metal frame.....	377,231	Jan. 31	2180	575	42	449
Borer, John M., Jerseyville, Ill. Twister for fence-wires.....	388,175	Aug. 21	1524	406	44	878
Borgmann, Hans, New York, N. Y. Paint-vehicle.....	387,488	Aug. 7	426		44	656
Borland, David R., Montreal, Quebec, Canada. Telegraph-key.....	380,310	Apr. 3	6	2	43	4
Borland, William D. (See Johnson and Borland.)						
Bormann, Hermann, assignor of one-half to J. W. Douglass, Philadelphia, Pa. Ellipso-graph.....	383,696	May 29	2704	715	43	1067
Bormann, Hermann, assignor of one-half to J. W. Douglass, Philadelphia, Pa. Ellipso-graph.....	383,697	May 29	2707	715	43	1068
Bormann, Hermann, assignor to J. W. Douglass, Philadelphia, Pa. Machine for making sewing thread or cord.....	392,144	Oct. 30	2796	759	45	579
Bornand, Emile, Ste Croix, Switzerland. Music-box.....	391,504	Oct. 23	1854	497	45	381
Bornemann, Herman. (See Gegauf, Friedrich, assignor.)						
Bornet, Camille, Paris, France. Rock-drilling machine.....	391,449	Oct. 23	1782	476	45	365
Borton, Baker, Clyde, Kans. Animal-releasing device.....	379,852	Mar. 20	1478	390	42	1262
Bosca, Mitchell E., Lansingburg, N. Y. Onrigger for boats.....	377,986	Feb. 14	972	253	42	697
Bosch, Andreas, Prairie du Chien, Wis. Pruning implement.....	379,359	Mar. 13	716	195	42	1107
Bosche, Philip, New Philadelphia, Ohio. Buggy-boot.....	382,349	May 8	713	180	43	654
Boschert, Rufus E., Syracuse, N. Y. Press.....	392,847	Nov. 13	995	{ 255 256 }	45	794
Boschert, Rufus E., Syracuse, N. Y. Friction-clutch.....	392,848	Nov. 13	996	256	45	794
Bosher, Charles C., <i>et al.</i> (See Robbins, George M., assignor.)						
Bosley, Daniel W. (See Cooke, Adrian C., assignor.)						
Bosley, Daniel W., Chicago, Ill. Weather-strip.....	390,945	Oct. 9	1045	276	45	212
Bosmann, Nicolas, Lake, Ill. Refrigerator-car.....	376,024	Jan. 3	417	{ 110 111 }	42	83
Boss, Arnold, Chicago, Ill. Strainer.....	375,295	June 26	2195	561	43	1570
Bosse, Frederick J., assignor of one-half to S. Newman, Brooklyn, N. Y. Fly-paper.....	391,014	Oct. 16	1175	312	45	242
Bossler, Joseph B., Middletown, Pa. Steam-generator.....	382,863	May 15	1461	383	43	811
Bostedo, Louis G. (See Thomas, Horatio, assignor.)						
Bostedo, Louis G., Atlantic, Iowa. Air-cushioned counter-balance for cash-carriers.....	376,286	Jan. 10	792	210	42	162
Bostedo Package and Cash Carrier Company. (See Thomas, Horatio, assignor.)						
Bostedo Package and Cash Carrier Company. (See Thomas and Bostedo, assignors.)						
Bostel, Carl, Cleveland, Ohio. Flour-bolting machine.....	386,959	July 31	2423	{ 636 637 }	44	503
Bostian, Charles P., Milton, assignor to himself, J. F. Meckley, Watsontown, and C. H. Dougal, Milton, Pa. Sewing-machine.....	382,794	May 15	1376	361	43	792
Bostick, Alonzo, Millington, Mich. Sleigh-knee.....	389,172	Mar. 27	1951	521	42	1364
Boston Braider Company. (See Veerkamp, Leopold, and Darker, assignors.)						
Boston Car Spring Company. (See Rand, Edwin R., assignor.)						
Boston Cash Indicator and Recorder Company. (See Webster, Jerome J., assignor.)						
Boston Cash Indicator and Recorder Company. (See Webster and Drew, assignors.)						
Boston Tag and Printing Company. (See Kidder, Wellington P., assignor.)						
Boston Tow Boat Company. (See Shaw and Spiegle, assignors.)						
Bostwick & Burgess Manufacturing Company. (See Burgess and Fleharty, assignors.)						
Bostwick, George C., Three Oaks, Mich. Thill-coupling.....	385,589	July 3	384	99	44	76
Bosworth, Charles B., Everett, assignor to Crosby Steam Gage and Valve Company, Boston, Mass. Pressure-gage.....	393,610	Nov. 27	2115	553	45	1032
Bosworth, Giles B. (See Reed, John M. and H. A., assignors.)						
Both, Adolph C., Portland, Me. Scale-divider and section-liner.....	393,290	Nov. 20	1627	427	45	926
Botstorf, Frederick G., assignor, by mesne assignments, to Erie Car Heating Company, Erie, Pa. Steam-trap.....	381,670	Apr. 24	2056	538	43	436
Botstorf, James E., Auburn, and T. L. Church, Syracuse, N. Y. Draft-shackle for vehicles.....	378,539	Feb. 28	1789	472	42	869
Botstorf, Oscar, Eureka, Mich. Cheek-piece for bridles.....	385,090	June 26	1881	480	43	1507
Botter, Jasper J., Mobile, Ala. Sand-band for vehicles.....	394,150	Dec. 11	609	163	45	1197
Bottomes, James, Sandy Run, Pa. Rod-coupling.....	377,186	Jan. 31	2110	556	42	436
Bottomley, James L. (See Cooke and Bottomley.)						
Bottomley, Thomas H., Capac, Mich. Apparatus for heating cars.....	387,206	Aug. 7	16	3	44	575
Botts, Barnet N., Paso Robles, Cal. Electric annunciator.....	379,758	Mar. 20	1313	350	42	1231
Boucher, Sidney H., West Berghin, assignor to C. C. Carrier, Newark, N. J. Feeder for ingot-molds.....	385,836	July 10	754	197	44	153

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.-g.	Vol.	Page.
Boucher, Sidney H., Jersey City, assignor to C. C. Currier, Newark, N. J. Feeder for ingot-molds	385,837	July 10	735	198	44	154
Bonck, John M., Gouverneur, N. Y. Railway snow-plow	392,491	Nov. 6	463 { 116 117		45	682
Bondreau, Leon, assignor to Overman Wheel Company, Boston, Mass. Velocipede-saddle	385,403	July 3	99	27	44	21
Bonglin, Benjamin F., Randolph, Nebr. Door-check	388,621	Aug. 28	2178	585	41	1012
Boughton, Epnetus A., assignor of one-third to S. B. Drass, Binghamton, N. Y. Device for curing tobacco	379,094	Mar. 6	345	98	42	1030
Boughton, Jared M., East Saginaw, Mich. Washing-machine	380,675	Apr. 10	564	155	43	123
Boughton, John W., Philadelphia, Pa. Insect-screen for windows or doors	375,863	Jan. 3	181	50	42	40
Boughton, John W., Philadelphia, Pa. Insect-screen	377,987	Feb. 14	953	253	42	697
Boulton, James B. D., Jersey City, N. J., assignor to Solid Ingot Company, of New Jersey. Elevator for ingot-casting machines	384,215	June 12	700	199	43	1273
Boulton, James B. D., Jersey City, N. J., assignor to Solid Ingot Company, of New York. Forming ingots	388,336	Aug. 21	1768	472	44	927
Bound, John, assignor of one-half to J. C. Whitaker, Tucson, Ariz. Ter. Car-coupling	388,815	Sept. 4	11	3.4	44	1074
Boudil, François F., Paris, France. Apparatus for spraying liquids	384,306	June 12	697	186	43	1263
Bourke, John T., et al. (See Bourke, Thomas H., assignor.)						
Bourke, Thomas H., Cleveland, Ohio. Balanced slide-valve	375,724	Jan. 3	5	1	42	3
Bourke, Thomas H., assignor of one-half to W. H. and T. R. Teare and J. T. Bourke, Cleveland, Ohio. Piston-valve	377,599	Feb. 7	372	95	42	566
Bourke, William, Brooklyn, N. Y. Button	379,929	Mar. 27	1604	426	42	1296
Bourke, William, Brooklyn, N. Y. Button	391,398	Oct. 23	1711	455	45	351
Bourne, Edward, Allegheny City, Pa. Gas-burner	380,015	Mar. 27	1734	465	42	1321
Bourne, Stephen N. (See Getchell, Charles E., assignor.)						
Bourne, Stephen N. (See Raymond, Bourne, and Carey.)						
Bourquin, Frederick. (See Belisle, Robert F. S., assignor.)						
Bours, Willie M., Stockton, Cal. Map	379,360	Mar. 13	718	195	42	1108
Boise, Michael, Wilmet, Ind. Cultivator	383,091	May 22	1829	479	43	891
Bossemaere, Hyppolite. (See Kavanagh, Peter F., assignor.)						
Bossemaere, Hyppolite, Lake View, Ill. Photograph-album	385,838	July 10	757	198	44	154
Bossemaere, Hyppolite, Lake View, Ill. Picture-album	391,938	Oct. 30	2474	609	45	516
Bottell, Ira, St. Louis, Mo. Coffee or tea pot	389,790	Sept. 18	1503	396	44	1374
Boutin, Louis, Alburg, Vt. Ventilating-chimney	390,337	Oct. 2	192	51	45	41
Bouton, Adrian F., and K. K. Stearns, Elizabeth, N. J. Pocket tooth-brush	380,080	Mar. 27	1829	487	42	1319
Bouton, Arthur A., Brooklyn, assignor to J. Kayser, New York, N. Y. Sewing-machine	378,653	Feb. 28	1952	519	42	901
Boutwell, George S. (See Chadwick and Boutwell.)						
Bovensip, Ernst, Detroit, Mich. Fire-escape	380,173	Mar. 27	1953	521	42	1364
Bowden, James H., Wilkes-Barre, Pa. Cable coupling and grip device	391,326	Oct. 16	1471	391	45	299
Bowditch, Albertis, Locke, N. Y. Milk-strainer	385,091	June 26	1882	481	43	1507
Bowen, Charles H., Washington, D. C. Electric-cable support	395,207	Dec. 25	2301 { 590 591		45	1541
Bowen, Columbus L. (See Cobb and Bowen.)						
Bowen, David, Shaanopin, Pa. Steam-engine	383,614	May 29	2595	686	43	1044
Bowen, David, deceased, assignor to A. H. Mulliken; said Mulliken assignor to Strom Manufacturing Company, Chicago, Ill. Switch-stand. (Reissue.)	10,970	Dec. 4	602	{ 161 162	45	1187
Bowen, Eugene. (See Nelsen and Bowen.)						
Bowen, George A., assignor to H. M. Clark, Oshkosh, Wis. Running-gear for vehicles	381,981	May 1	134	32	43	539
Bowen, Henry C., Lamar, Mo. Nut-lock	376,179	Jan. 10	646	172	42	135
Bowen, James H., Philadelphia, Pa. Toy money-box	376,628	Jan. 17	1295	341	42	263
Bowen, Richard H. (See Gose, Jacob C., assignor.)						
Bowen, Robert A., St. James, and J. M. Eaton, Cuba, Mo. Hay-press	391,680	Oct. 23	2086	565	45	429
Bower, Augustus H., Lebanon, Pa. Snow guard or fender	390,061	Sept. 25	1918	506	44	1463
Bower, George E., assignor of one-half to J. H. Lynch, Auburn, N. Y. Check-case	388,251	Aug. 21	1631	437	41	901
Bower, John F., Chicago, Ill. Whip-socket	381,005	June 19	1146	303	43	1354
Bower, Joseph P. (See Jarrett and Bower.)						
Bower, Joseph P., Des Moines, Iowa. Driving mechanism for elevators	377,139	Jan. 31	2052	537	42	423
Bowers, Albert M., Newark, N. J. Leather-working machine	392,004	Oct. 30	2572	699	45	535
Bowers, Alfred. (See Pettit and Bowers.)						
Bowers, Alphonzo B., San Francisco, Cal. Hydraulic dredging apparatus	388,252	Aug. 21	1635	417	44	901
Bowers, Alphonzo B., San Francisco, Cal. Dredging-machine	388,253	Aug. 21	1637 { 437 438		44	902
Bowers, Alphonzo B., San Francisco, Cal. Dredging apparatus	388,337	Aug. 21	1770	472	44	927
Bowers, Edward L. (See Groat and Bowers.)						
Bowers, George W., Somerville, Mass. Guitar	383,275	May 22	2089	549	43	941
Bowers, Henry J. A. (See Allen and Bowers.)						
Bowers, James and J. R., Newark, N. J. Clutch mechanism	392,741	Nov. 13	790	200	45	753
Bowers, John R. (See Bowers, James and J. R.)						
Bowers, Moses C., McKeesport, assignor to E. C. Converse, Allegheny City, Pa. Pipe-joint	377,988	Feb. 11	974	251	42	698
Bowers, Rodolph C., Carlyle, Ill. Folding bed	376,851	Jan. 24	1652	432	42	337
Bowers, Walter T., Saco, Me. Bicycle-lighting	381,120	June 5	411	114	43	1199
Bowersock, Sallie E., Baltimore, Md. Bread, cake, or cheese box	381,821	Apr. 21	2291	596	43	480
Bowiek, Thomas G., Harpenden, county of Herts, England. Purifying alcohol	387,015	Oct. 16	1176	312	45	242
Bowiek, Thomas G., Harpenden, county of Hertford, England. Apparatus for purifying alcohol	393,057	Nov. 20	1296	336	45	860
Bowles, Frank L., Detroit, Mich. Drawer for spool-thread cases	380,174	Mar. 27	1954	521	42	1364
Bowles, John, assignor of one-fourth to J. R. Edson, Washington, D. C. Eyeglasses	389,799	July 31	2164	570	44	454
Bowles, Robert C. M., Boston, Mass. Angle-hanger for mechanical-telephone lines	390,062	Sept. 25	1919	506	44	1463
Bowley, E. W., et al. (See Lytle, John N., assignor.)						
Bowling, Donald E., Lynchburg, and F. O. Barnes, Allegheny Springs, Va. Vehicle-brake	382,586	May 8	10-1	278	43	726
Bowling, Enoch C., et al. (See Morgan, Benjamin B., assignor.)						
Bowling, Enoch C., Ypsilanti, Mich. Napkin-ring	385,925	July 10	976	260	41	199
Bowling, Enoch C., Ypsilanti, Mich. Apparatus for making garment-stays	3-5,996	July 10	977 { 269 261		44	200
Bowling, Enoch C., assignor of one-half to H. P. Glover, Ypsilanti, Mich. Garment-stay	378,080	Feb. 21	1104	269	42	730
Bowman, Alexander H. (See Widdifield and Bowman.)						
Bowman, Alfred L., La Due, Mo. Windmill	386,684	July 24	1985	524	44	412
Bowman, Dock, Cynthiaana, Ky. Belt-tightener	380,081	Mar. 27	1830	487	42	1339
Bowman, E. H., Jr., et al. (See Skiles, Robert L., assignor.)						
Bowman, George A., St. Louis, Mo. Shirt stud or button	393,416	Nov. 27	1812	478	45	770
Bowman, John D., Altoona, Pa. Turn-table	389,541	Sept. 18	1117 { 294 295		41	1299
Bowman, Thomas S., St. Louis, Mo. Printing-machine	382,684	May 15	1230 { 319 320		43	764



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Bowman, William H., assignor of one-half to A. B. Lukens, South Solon, Ohio. Attachment for corn-planters.....	378,569	Feb. 28	1837	484	42	878
Bowman, William M., Taunton, Mass. Ash tray or pan.....	379,195	Mar. 6	472	133	42	1056
Bowne, Frank W., Lincoln, Nebr. Two-wheeled vehicle.....	379,675	Mar. 20	1194	316	42	1206
Bowne, John D., Jamesburg, N. J. Oscillating steam-engine.....	379,630	Mar. 20	1130	299	42	1194
Bowyer, Charles D., and W. H. Casperson, Camden, N. J. Painter's stage.....	382,252	May 1	552	140	43	615
Boyce, Sherman H., <i>et al.</i> (See Pruim, Hiram P., assignor.)						
Boyd, David, Louisville, Ky. Fence.....	388,816	Sept. 4	12	4	44	1075
Boyd, Harry J. (See Smith and Boyd.)						
Boyd, Henry E., McKeesport, Pa. Machine for cutting taps.....	392,582	Nov. 13	600	{ 150 151 }	{ 45 }	716
Boyd, James W. (See Lyon, Henry A., assignor.)						
Boyd, John S., Baltimore, Md. Bag.....	380,016	Mar. 27	1737	465	42	1321
Boyd, Joseph M. (See Harper, Boyd, and Shelton.)						
Boyd, L. James M., Annapolis, Md. Dating and canceling stamp.....	390,155	Sept. 25	2060	550	41	1493
Boyd, Lawson A., Indianapolis, Ind. Scriptoscope.....	389,190	Sept. 11	597	133	44	1192
Boyd, Nathaniel W., Steelton, Pa. Railway switch-stand and signal.....	383,209	May 22	1986	521	43	923
Boyd, Robert L., New York, N. Y. Pocket-book fastening.....	383,795	May 15	1378	362	43	793
Boyd, Thomas A., Glasgow, county of Lanark, Scotland. Feed-rollers for making fancy yarns.....	386,623	July 24	1898	{ 501 502 }	{ 44 }	396
Boyd, Thomas C., and J. J. Wade, Chicago, Ill. Wash-bowl.....	380,082	Mar. 27	1831	457	42	1340
Boyd, Thomas C., and J. J. Wade, Chicago, Ill. Stationary wash-bowl.....	380,083	Mar. 27	1832	488	42	1340
Boyd, Trustin B., St. Louis, Mo. Copying-press.....	388,817	Sept. 4	13	4.5	44	1075
Boyd, William H., St. Charles, Minn. Mammre-pouch.....	390,000	Sept. 25	1824	483	44	1443
Boyden, Benjamin F., 2d. (See Blakely, Caleb J., assignor.)						
Boyden, George A., Baltimore, Md., assignor to Boyden Power Brake Company of Baltimore City, of Maryland. Steam-valve.....	394,532	Dec. 11	1180	307	45	1304
Boyden Power Brake Company of Baltimore City. (See Boyden, George A., assignor.)						
Boyer, Allen P., Jones, Mich. Hay or grain unloader.....	377,012	Jan. 31	1873	493	42	388
Boyer, Bassler, <i>et al.</i> (See Singer, Christian G., assignor.)						
Boyer, Bassler, Lebanon, Pa. Car-brake.....	394,452	Dec. 11	1061	276	45	1282
Boyer, Enzebe, and G. Gilmet, Garden, Mich. Mail-crane.....	386,960	July 31	2425	637	44	503
Boyer, Jacob. (See Green, Walter T., assignor.)						
Boyer, Joseph, assignor to Boyer Railway Speed Recorder and Indicator Company, St. Louis, Mo. Adjustable pulley.....	395,268	Dec. 25	2305	591	45	1541
Boyer Railway Speed Recorder and Indicator Company. (See Boyer, Joseph, assignor.)						
Boyer, Zaccar P., Philadelphia, Pa. Elevated cable-motor or other railway structure.....	382,407	May 8	795	{ 202 203 }	{ 43 }	670
Boyer, Zaccar P., Philadelphia, Pa. Machine for bending rails, beams, or bars.....	389,495	Sept. 11	1051	{ 279 280 }	{ 44 }	1279
Boykin, Herbert C. (See Drayer and Boykin.)						
Boyle, Charles W., Bradley, Mich. Cider-mill.....	382,408	May 8	797	{ 203 204 }	{ 43 }	671
Boyle, Homer L., Grand Rapids, Mich. Fire-escape.....	381,982	May 1	135	32	43	539
Boyle, James E., Brooklyn, N. Y. Pneumatic flushing-tank.....	380,354	Apr. 10	825	{ 224 225 }	{ 43 }	171
Boyle, James W., assignor to himself and J. E. Davison, Negley, Pa. Ceiling-brush.....	375,919	Jan. 3	255	69	42	53
Boyle, Nicholas, Norristown, Pa. Warp-beaming machine.....	379,045	Mar. 6	270	78	42	1016
Boyle, Patrick H., Boston, Mass. Combined gate and step.....	389,284	Sept. 11	751	191	44	1223
Boyle, Thaddeus W., Augusta, Ga. Shovel-plow.....	392,308	Nov. 6	185	48	45	629
Boyle, William N. (See Bramwell and Boyle.)						
Boylan, James F. (See Driscoll and Boylen.)						
Boynton, Eben M., West Newbury, Mass. Freight-car for bicycle-railways.....	393,961	Dec. 4	331	90	45	1135
Boynton, Eben M., West Newbury, Mass. Railway system.....	394,055	Dec. 4	472	126	45	1162
Boynton, Eben M., West Newbury, Mass. Railway-car for elevated roads.....	394,092	Dec. 4	521	140	45	1171
Boynton, Edward S., assignor to Campbell Printing Press and Manufacturing Company, New York, N. Y. Means for securing printing-plates to beds or cylinders of printing machines.....	391,733	Oct. 23	2164	584	45	444
Boynton, Frederick H., assignor of one-half to A. Fowle, Milwaukee, Wis. Printer's galley.....	378,654	Feb. 28	1953	519	42	901
Boynton, George O., and F. C. Johnson, Boston, Mass. Providing protection for the ends of bobbins, &c.....	379,151	Mar. 6	415	117	42	1044
Boynton, John, Bridgeport, Conn. Button-hole sewing-machine.....	390,063	Sept. 25	1920	{ 506 507 }	{ 44 }	1463
Boynton, William J., Boston, Mass. Trunk.....	385,404	July 3	101	28	44	22
Brab, August, Cologne, Prussia, assignor to Kohner & Co., Ehrenfeld, Germany. Paper barrel.....	388,113	Aug. 21	1401	376	44	857
Brabb, George W., <i>et al.</i> (See Hill, Nelson H., assignor.)						
Brabson, Thomas, Newark, N. J. Bridle-bit.....	394,453	Dec. 11	1063	276	45	1283
Brabson, Thomas, Newark, N. J. Bridle-bit.....	394,454	Dec. 11	1063	276	45	1283
Brace, William, Washingtonville, Ohio. Fruit-jar fastening.....	382,212	May 1	887	125	43	603
Bracher, Philip H., Vincanton, county of Somerset, England. Peat-machine.....	392,492	Nov. 6	466	117	45	683
Bracher, Thomas W., New York, N. Y. Sweat-band for hats.....	380,177	Mar. 27	1955	521	42	1365
Bracher, Thomas W., New York, N. Y. Sweat-band for hats.....	381,208	Apr. 17	1374	307	43	283
Bracher, Thomas W., New York, N. Y. Sweat-band for hats.....	385,092	June 26	1882	481	43	1507
Brack, Mary S., El Paso, Tex. Kitchen table and cabinet.....	387,760	Aug. 14	845	219	41	741
Bracket, H. J., <i>et al.</i> (See Rummals, Nathaniel B., assignor.)						
Brackett, Henry, Moreau, N. Y. Mowing-machine.....	386,519	July 24	1762	465	44	369
Brackett, Walter F., Melrose, Mass. Drawing implement.....	379,206	Mar. 13	504	142	42	1067
Bradbeer, Thomas J., Detroit, Mich. Hot-air flue.....	390,438	Oct. 2	336	89	45	71
Bradbury, Heber E., Bauning, Cal. Draft attachment for plows.....	379,676	Mar. 20	1194	316	42	1207
Bradbury, John M. (See Griswold and Bradbury.)						
Braddock, Warren L., Boston, Mass. Curtain-ring.....	387,392	Aug. 7	290	74	44	627
Braddock, Warren L., Boston, Mass., assignor of one-half to T. B. Sargeant, Detroit, Mich. Car-coupling.....	384,666	June 19	1147	303	43	1354
Bradds, Ezekiah, Kansas City, Mo. Scaffolding.....	380,546	Apr. 3	365	104	43	75
Bradford, Abner B., Viola, Ill. Folding chicken-coop.....	393,058	Nov. 20	1297	337	45	861
Bradford, Allen, assignor of one-half to V. M. Clement, Wardner, Idaho Ter. Automatic sampling apparatus.....	384,420	June 12	868	226	43	1294
Bradish, Almada G., assignor of one-half to J. S. Method, Oneida, Ill. Slate-cleaner.....	386,574	July 24	1837	485	44	383
Bradford, Charles K., Lynnfield, assignor to G. H. P. Flagg and G. A. Fullerton, Boston, Mass. Lasting-awl.....	376,939	Jan. 24	1768	465	42	360
Bradford, Charles K., Lynnfield, assignor to G. H. P. Flagg and G. A. Fullerton, Boston, Mass. Sewing-tool.....	382,750	May 15	1312	345	43	780



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr't	Vol.	Page.
Bradford, Charles K., Lynnfield, assignor to W. F. Kakas, Boston, Mass. Fishing-reel	384,742	June 19	1349	352	43	1394
Bradford, Cornelius F., Plymouth, Mass. Machine for winding cotton, &c., upon a core	383,856	June 5	11	3, 4	43	1123
Bradford Manufacturing Company. (See Abbott, Essex S., assignor.)						
Bradford, Oliver B., assignor of one-half to W. A. McCool, Beaver Falls, Pa. Shoo	392,404	Nov. 6	349	84	45	658
Bradford, Park A. C., Coffeyville, Kans. Watch-case pendant	395,209	Dec. 25	2306	592	45	1541
Bradford, Purnort, assignor to Sargent & Company, New Haven, Conn. Transom-lifter	393,611	Nov. 27	2116	553	45	1032
Bradford, Thomas, Allegheny, Pa. Combined fire-place fender and air-moistener	376,575	Jan. 17	1198	317	42	244
Bradley, Arthur C., Brooklyn, N. Y. Manufacturing orange mineral and red lead	382,070	May 1	287	76, 77	43	567
Bradley, Arthur C., Brooklyn, N. Y. Manufacturing the oxides of readily-oxidizable metals for paints, &c.	382,133	May 1	377	98, 99	43	582
Bradley, Arthur C., Brooklyn, N. Y. Manufacturing oxide of iron	385,235	June 26	2092	536	43	1551
Bradley, Benjamin L., Baltimore, Md. Molding-machine	376,704	Jan. 17	1412	371	42	284
Bradley, Charles E., assignor to L. L. Gerard and W. N. Ebbert, Dawson, Pa. Lifting-jack	388,176	Aug. 21	1525	406	44	878
Bradley, Charles S., Yonkers, N. Y. Dynamo-electric machine	390,439	Oct. 2	337	89	45	71
Bradley, Charles S., Yonkers, N. Y. Dynamo-electric machinery	394,818	Dec. 18	1668	436	45	1414
Bradley, Charles S., Yonkers, N. Y. Dynamo-electric machinery	394,819	Dec. 18	1670	437	45	1414
Bradley, Christopher C. (See Bierhart, Herman J., assignor.)						
Bradley, Christopher C. (See Davis, Richard H., assignor.)						
Bradley, Edward E., assignor to J. E. and E. Atwood, Stonington, Conn. Reeling-machine	376,509	Jan. 17	1111	291 292	42	228
Bradley, Edward T. (See Donahue and Bradley.)						
Bradley, Edwin C. (See Freeland, James R., assignor.)						
Bradley, Everal, Trumansburg, N. Y. Snap-hook	388,254	Aug. 21	1639	438	44	903
Bradley, Gilbert W., Sunderland, Vt. Riveting-machine	375,725	Jan. 3	6	2	42	3
Bradley, Gilbert W., Sunderland, Vt. Butter-package	389,285	Sept. 11	752	191	44	1223
Bradley, Henry A., assignor of one-half to J. J. Gorman, New York, N. Y. Kiln for drying cement	375,929	Jan. 3	256	69, 70	42	54
Bradley, Henry C., Milwaukee, Wis. Non-conducting covering for steam-pipes, boilers, &c.	389,542	Sept. 18	1121	295	44	1300
Bradley, Henry L., New Haven, Conn. Wardrobe-hook	379,759	Mar. 20	1315	351	42	1231
Bradley & Hubbard Manufacturing Company. (See Everts, Charles A., assignor.)						
Bradley & Hubbard Manufacturing Company. (See Fisher, Emil, assignor.)						
Bradley & Hubbard Manufacturing Company. (See Penfield, William A., assignor.)						
Bradley, Isadore, et al. (See Harrison, Arthur W., assignor.)						
Bradley, John, Philadelphia, Pa. Gas-engine speed-regulator	386,233	July 17	1335	352	44	275
Bradley Manufacturing Company, David. (See Packer, John F., assignor.)						
Bradley, Milton. (See Easley and Bradley.)						
Bradley, Nathaniel, Manchester, county of Lancaster, England. Apparatus for preparing yeast for use in brewing	391,775	Oct. 30	2219	601	45	466
Bradley & Sons, William. (See McIntyre, Neil, assignor.)						
Bradley, William H., Allegheny, Pa. Gas-governor or pressure-regulator	390,064	Sept. 25	1923	507	44	1464
Bradley, William W., assignor to J. C. Dueber, Newport, Ky. Making watch-case pendants	391,016	Oct. 16	1178	313	45	242
Bradshaw, Augustus, et al. (See Church, Walter A., assignor.)						
Bradshaw, George, Mattoon, Ill. Buckle	386,293	July 17	1419	374	44	291
Bradshaw, John G. (See Lee and Bradshaw.)						
Bradt, Samuel E., et al. (See Reynolds, Walter S., assignor.)						
Brady, James, Sonora, Ill. Hay-cap	384,957	June 26	1663	432	43	1462
Brady, Peter L., Hearne, Tex. Nut-lock	380,712	Apr. 10	612	168	43	131
Brady, Peter L. and W., Hearne, Tex. Cotton-press	378,570	Feb. 28	1829	485 486	42	879
Brady, Peter L. and W., Hearne, Tex. Cotton-gin	393,352	Nov. 27	1717	454 455	45	952
Brady, Thomas H., New Britain, Conn. Storm-protector for electric lamps	387,044	July 31	2536	667	44	525
Brady, Thomas H., New Britain, Conn. Storm-protector for electric lamps	390,440	Oct. 2	341	89	45	72
Brady, William. (See Brady, Peter L. and W.)						
Bradford, John H., assignor to himself and T. W. Minton, Lebanon, Ky. Gate	392,778	Nov. 13	897	229	45	773
Bradton, Melville C., Newton, Mass. Automatic gas-valve	386,520	July 24	1764	466	44	369
Bragg, Ingalls, South Andover, Me. Whiffletree-coupling	391,876	Oct. 30	2383	646	45	498
Braggins, Seth, Rochester, N. Y. Device for controlling the flow of steam through pipes	387,851	Aug. 14	976	254	44	767
Brahadi, Abraham, Montreal, Quebec, Canada. Hat or cap	376,705	Jan. 17	1414	372	42	285
Brahadi, Abraham, Montreal, Quebec, Canada. Combined fur satchel and muff	384,503	June 12	999	260	43	1318
Braidwood, William, Mount Vernon, N. Y. Corner-cutter for hooks	391,681	Oct. 23	2088	566	45	490
Brainard, Amos H., Hyde Park, Mass. Milling-machine	378,427	Feb. 28	1630	423	42	835
Brainard, Amos H., Hyde Park, Mass. Milling-machine	381,108	Apr. 17	1244	334	43	259
Brainard, Amos H., Hyde Park, Mass. Milling-machine	381,525	Apr. 24	1854	490 491	43	396
Brainard, Amos H., Hyde Park, Mass. Conveyor	383,556	May 29	2521	665	43	1027
Brainard, Charles E., Moodus, Conn. Machine for making cord or rope	378,491	Feb. 28	1728	456	42	857
Brainard, Julius D., assignor to himself and J. H. Lynch, Highmore, Dak. Ter. Earth-scraper	378,571	Feb. 28	1841	486	42	879
Brainard, Morris F., Brooklyn, N. Y. Dredging-machine	377,000	Jan. 31	1939	510	42	401
Brainard, Morris F., Brooklyn, N. Y. Dredging-machine	386,866	July 31	2288	601 602	44	476
Brainard, Frank W., Chicago, Ill. Electric motor for self-winding clocks	388,622	Aug. 28	2179	586	44	1012
Brake, Archibald, assignor of one-half to J. T. Dodwell, Toronto, Ontario, Canada. Hot-water radiator	375,861	Jan. 3	182	50	42	40
Braman, Alfred W., Chicago, Ill. Pitman-box for harvesters	384,504	June 12	1000	260	43	1318
Branwell, William, and W. N. Boyle, Toledo, Ohio. Boring-bar	389,360	Sept. 11	850	213	44	1213
Branaman, Addison P. (See Gilmore and Branaman.)						
Brand, John B., Sioux City, Iowa. Road-grader	375,797	Jan. 3	101	29	42	24
Brand, Arnold, Fünfhaus, near Vienna, Austria-Hungary. Machine for making covered buttons	375,726	Jan. 3	6	2	42	4
Brand, Frederick J., New Britain, Conn. Bustle	384,557	June 12	1076	281	43	1333
Brand, George F. (See King and Brand.)						
Branden, Jeffries R., assignor to C. C. and H. C. Hodges, Detroit, Mich. Machine for slitting metallic sheets for metallic lathing	385,405	July 3	103	22, 29	41	22
Branden, Jeffries R., assignor to C. C. and H. C. Hodges, Detroit, Mich. Machine for opening out metallic lathing	390,441	Oct. 2	341	90, 91	45	72
Brandenburg, Fowler A., Vandalia, Ohio. Carriage-curtain fixture	382,287	May 1	604	153	43	624
Brandenburg, Isaac S. (See Miller, Charles H., assignor.)						
Brandner, Adolphus G. (See Sanders, Oliver P., assignor.)						
Brandriff, Alfred, Millville, N. J. Machine for edging and seaming plates	393,304	Nov. 20	1496	391 392	45	900
Brandt, Julius, New Rochelle, N. Y. Combined hatchet and plane	379,677	Mar. 20	1190	316 317	42	1207

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Branford Lock Works. (See Donahue, Thomas, assignor.)						
Brankston, Ralph T., assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Hydraulic loading and operating mechanism for ordnance	377,924	Feb. 14	882	<sup>925</sup> 226 227 228	42	673
Brankston, Ralph T., assignor to W. G. Armstrong, Mitchell & Co., (limited,) Elswick Works, Newcastle-upon-Tyne, England. Trunnion-bearing for ordnance, &c.	378,242	Feb. 21	1419	371	42	787
Brann, Frederick W., and G. I. Kinney, San Francisco, Cal. Switch for electric-light and motor circuits	379,501	Mar. 13	933	251	42	1149
Brann, Oscar B., Portland, Me. Automatic regulator for vulcanizing apparatus and other purposes	385,236	June 26	2099	<sup>536</sup> 537	43	1551
Brannigan, Felix, New York, N. Y., assignor of one-half to J. M. Ewing, Wheeling, W. Va. Paving-tile	378,825	Feb. 28	2217	590	42	951
Branson, George H., Michigan City, Ind. Fire-wood drag-saw	385,997	July 10	978	261	44	200
Branstetter, Simon U., Vandalia, Mo. Suspending device	391,450	Oct. 23	1784	476	45	365
Branton, Henry D. T., Fort Scott, Kans. Reversible bevel-shaper, saw, and boring-machine	379,930	Mar. 27	1606	<sup>426</sup> 427	42	1296
Brasfield, J. W. (See George, John S., assignor.)						
Bratsch, Albert L., Renville, Minn. Pole and shafts for vehicles	383,939	June 5	148	43	43	1149
Bratton, Fred O., San Francisco, Cal. Safety-cover for poison-bottles	389,051	Sept. 4	352	93	44	1139
Brann, J. David, and K. Landschneider, Detroit, Mich. Shaft-support for vehicles	391,112	Oct. 16	1313	350	45	268
Brann, Max, Newark, N. J. Harmonica	392,405	Nov. 6	343	84, 85	45	659
Brann, Otto, Berlin, Germany. Centrifugal machine	392,583	Nov. 13	603	151	45	716
Braun, Phillip, Los Angeles, Cal. Combined step-ladder and chair	387,045	July 31	2537	667	44	525
Braun, William F., Columbus, Ohio. Car-coupling	377,289	Jan. 31	2275	601	42	466
Braund, John T. (See Heap and Braund.)						
Braund, John T., assignor of one-half to W. W. Barrens, Muskegon, Mich. Burial process	376,629	Jan. 17	1297	341	42	263
Bray, John, Jr., Washington, D. C. Flag or rush matting and making the same	381,209	Apr. 17	1374	367	43	283
Bray, Mellen N., Boston, and E. M. Pope, Quincy, Mass.; said Pope assignor to said Bray. Machine for setting lacing-studs	393,813	Dec. 4	112	31	45	1094
Bray, Morris P., Ansonia, Conn. Corset	388,623	Aug. 28	2181	586	44	1013
Bray, Morris P., assignor to Mayer, Strouse & Co., New Haven, Conn. Corset-clasp	377,232	Jan. 31	2181	576	42	449
Bray, Morris P., Ansonia, Conn., assignor of one-half to C. L. Olmstead, West Brookfield, and A. D. Nason, Springfield, Mass. Attaching buttons to corsets or other garments	393,687	Nov. 27	2229	585	45	1055
Bray, Thomas J., assignor of one-half to Riverside Iron Works, Wheeling, W. Va. Pipe-welding apparatus	382,452	May 8	867	<sup>221</sup> 222	43	683
Bray, Thomas J., assignor of one-half to Riverside Iron Works, Wheeling, W. Va. Mechanism for the manufacture of paper	382,453	May 8	869	222	43	683
Bray, Thomas J., assignor of one-half to Riverside Iron Works, Wheeling, W. Va. Mechanism for the manufacture of angular tubes	382,454	May 8	871	<sup>222</sup> 223	43	684
Bray, William C., Newton, Mass. Rivet-setting machine	382,350	May 8	714	181	43	654
Bray, William H., Boston, and C. Nickerson, Chelsea, Mass. Valve for water-gages	381,609	Apr. 24	1974	519	43	419
Brayer, John F., Rochester, N. Y. Shelf for stoves or ranges	394,093	Dec. 4	522	140	45	1171
Brear, Samuel D., Winona, Minn. Mechanical telephone	385,839	July 10	758	199	44	154
Breezeale, David K., Rayne, assignor of one-half to W. W. Duson, Crowley, La. Washing-machine	388,114	Aug. 21	1402	377	44	857
Bredel, Frederick, New York, N. Y. Automatic gas-governor	380,743	Apr. 10	659	182	43	141
Bredel, Frederick, New York, N. Y. Gas-condenser and tar-separator	388,474	Aug. 28	1972	529	44	972
Breen, Howard M. (See Robinson, O'Brien, and Breen.)						
Breese, Henry J. (See Martin and Breese.)						
Breese, James R., Elizabeth, N. J. Rolling seat for row-boats	391,939	Oct. 30	2476	669	45	517
Breese, John H., Minneapolis, Minn. Cistern-cleaner	382,864	May 15	1462	383	43	811
Breese, John H., Minneapolis, Minn. Pocket-box for postage-stamps	383,036	May 15	1724	449	43	862
Breese, John H., Minneapolis, Minn. Device for holding and moistening postage-stamps	383,037	May 15	1726	449	43	863
Brega, Charles W. (See Aspinwall, Lewis A., assignor.)						
Brelle, Frank, Philadelphia, Pa. Cloth steaming and drying machine	392,903	Nov. 13	1068	277	45	809
Bremer, Max, New York, N. Y. Fastener for coffins	388,624	Aug. 28	2182	586	44	1013
Breneman, Abram A., Brooklyn, N. Y. Coating iron and steel with rustless oxide	387,046	July 31	2538	—	44	525
Brennan & Co. Southwestern Agricultural Works. (See Wolfe, Harvey R., assignor.)						
Brennan, Edward, et al. (See Nelson, B. Franklin, assignor.)						
Brennan, James A., Worcester, Mass. Corset fastening	380,017	Mar. 27	1738	466	42	1322
Brennan, James H., Shullsburg, Wis. Trace-bearer	392,309	Nov. 6	186	48	45	629
Brennan, Murtagh P., et al. (See Nelson, B. Franklin, assignor.)						
Brennan, Patrick. (See Kopplin and Brennan.)						
Brenner, Rudolph. (See Haberthür and Brenner.)						
Bresler, Frederick U., et al. (See Wood, William P., assignor.)						
Bresse, Guillaume, Quebec, Quebec, Canada. Heel-machine	388,255	Aug. 21	1641	<sup>438</sup> 439	44	904
Bresson, Henri S. (See Petit and Bresson.)						
Bretsfield, Samuel, New York, N. Y. Playing-card	388,115	Aug. 21	1403	377	44	857
Brettell, George E., assignor of one-third to W. A. Wilson, Rochester, N. Y. Automatic fuel-regulator for boilers	383,557	May 29	2522	665	43	1027
Brettner, Rudolf. (See Cziner and Brettner.)						
Breuer, Hynek, New Prague, Minn. Window-sill	376,940	Jan. 24	1768	465	42	360
Breul, Richard A., Bridgeport, Conn., assignor to Bridgeport Chain Company. Feeding-mechanism for blanking-presses	395,211	Dec. 25	2307	<sup>592</sup> 593	45	1541
Brevort, Henry L. (See Roberts and Brevort.)						
Brevort, Henry L., and I. L. Roberts, Brooklyn, assignors to Roberts-Brevort Electric Company, (limited,) New York, N. Y. Separating-partition for galvanic batteries	394,698	Dec. 18	1371	359	45	1353
Brewer, Horatio J., New York, N. Y. Galvanic battery	380,084	Mar. 27	1833	488	42	1340
Brewer, Horatio J., New York, N. Y. Galvanic battery	380,085	Mar. 27	1834	488	42	1341
Brewer, Horatio J., New York, N. Y. Galvanic battery	380,855	Apr. 10	829	225	43	171
Brewer, Horatio J., New York, N. Y. Galvanic battery	380,856	Apr. 10	830	225	43	172
Brewer, Horatio J., New York, N. Y. Battery-electrode	390,748	Oct. 9	769	204	45	159
Brewer, Horatio J., New York, N. Y. Galvanic battery	391,505	Oct. 23	1856	497	45	381
Brewer, Horatio J., New York, N. Y. Porous cup for galvanic batteries	393,353	Nov. 27	1719	455	45	952
Brewer, Jacob H., Annapolis, Ind. Chicken-coop	388,016	Aug. 21	1245	338	44	829
Brewer, Ora A. (See Brewer, Thomas H. and O. A.)						
Brewer, Thomas H. and O. A., Pawnee Rock, Kans. Windmill	380,547	Apr. 3	366	104	43	75
Brewer, W. F., et al. (See Seiser, Hill, and Nuttall, assignors.)						
Brewer, William J., London, county of Middlesex, England. Wheel-hub	377,187	Jan. 31	2111	557	42	436
Brewer, William J., London, county of Middlesex, England. Car-truck	384,505	June 12	1001	261	43	1319
Brewer, William J., London, county of Middlesex, England. Anti-friction bearing for shafts	384,506	June 12	1002	261	43	1319

## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Brewer, William T., Palatka, Fla. Lath-chuck for turning eccentrics .....	386,104	July 17	1140	303	44	237
Brewers Ice Company. (See Reis, John, assignor.)						
Brewington, Henry S., Baltimore, Md. Wash-board .....	382,751	May 15	1313	345	43	780
Brewster, Angus P., Newnan, Ga. Car-coupling .....	385,789	July 10	682	178	44	141
Brewster & Company, J. B. (See Fest, William P., assignor.)						
Brewster, Edward E., Holly, Mich. Fire-kindler .....	379,631	Mar. 20	1132	300	42	1194
Brewster, Edward E., Holly, Mich. Fire-kindler .....	380,176	Mar. 27	1955	522	42	1365
Brewster, Edward E., Holly, Mich. Rein-holder .....	380,676	Apr. 10	565	156	43	123
Brewster, James B., New York, N. Y. Centrifugal amalgamator .....	393,095	Nov. 20	1345	351	45	869
Brewster, William F., East Orange, N. J. Recording thermometer .....	392,310	Nov. 6	186	18, 49	45	629
Brice, Harvey C., and W. C. Smith, La Crosse, Wis. Railway-frog .....	394,754	Dec. 18	1557	407	45	1392
Brice, Thomas, Sandy Hill, N. Y. Fire-escape .....	383,340	May 22	2173	574	43	957
Brick, Samuel R., Stapleton, N. Y. Means for detecting leakage from gas-mains .....	373,283	Feb. 21	1420	{ 371 372 }	{ 42 42 }	787
Brickner, Max, <i>et al.</i> (See Smith, George, assignor.)						
Bridenbaugh, Philip H. (See Gorsuch, George W., assignor.)						
Bridenthal, Hezekiah Vincennes, Ind., assignor of eleven-twelfths to J. E. Hall, St. Louis, Mo. Bolting-reel .....	381,324	Apr. 17	1539	415	43	316
Bridenburg Manufacturing Company. (See Bates, Stockton, assignor.)						
Bridewell, Richard F., assignor of two-thirds to H. H. Allen and M. Pendergast, San Francisco, Cal. Automatic gas lighting and extinguishing device .....	388,177	Aug. 21	1526	{ 406 407 }	{ 44 44 }	879
Bridge, Lewis, Philadelphia, Pa., assignor to Pennsylvania Globe Gas Light Company, of Pennsylvania. Gas-stove .....	383,793	May 29	2873	755	43	1099
Bridgeport Chain Company. (See Breul, Richard A., assignor.)						
Bridger, Edward K. (See Jones and Bridger.)						
Bridger, Henry C., New York, N. Y., assignor to J. Quincy and A. L. Parcelle, Boston, Mass. Electrical synchronous movement .....	375,727	Jan. 3	8	2	42	4
Bridgman, Harvey W., Lyons, Kans. Chopping-knife and slicer .....	387,047	July 31	2539	668	44	525
Bridwell, James W., Hillsborough, Ohio, assignor to Star Manufacturing Company, of Ohio. Package-carrier .....	384,558	June 12	1077	281	43	1333
Brierley, John. (See Schofield and Brierley.)						
Brierly, Walter E., and P. P. Sanderson, Millbury, Mass. Pipe-flange for steam-heating pipes .....	391,113	Oct. 16	1315	351	45	268
Brigel, Leo A., Cincinnati, Ohio. Gear-ratchet .....	390,646	Oct. 9	625	167	45	132
Brigg, Matthew A., <i>et al.</i> (See Wilcock, Charles, assignor.)						
Briggs, Charles N. (See Briggs, Orlando P., assignor.)						
Briggs, Emma F., San Marcos, Tex. Motor for sewing-machines .....	388,393	Aug. 28	1863	497	44	950
Briggs, Fernando C., St. Johnsville, N. Y. Advertising device .....	377,925	Feb. 14	884	228	42	679
Briggs, George S. (See Weyburn and Briggs.)						
Briggs, George T. (See Locke, Edward C., assignor.)						
Briggs, George T., Cambridgeport, Mass. Spring shade-roller .....	375,986	Jan. 3	356	95	42	72
Briggs, J. Henry, assignor to J. W. Douglass, Philadelphia, Pa. Sewing thread or cord .....	387,207	Aug. 7	17	3	44	575
Briggs, John, Boston, Mass. Paint-mill .....	385,441	July 3	163	44	44	34
Briggs, Leonard C., East Saginaw, Mich. Cannon-pinion for watches .....	388,625	Aug. 28	2183	586	44	1013
Briggs, Louis W., <i>et al.</i> (See Lore, George W., assignor.)						
Briggs, Orlando P., Chicago, Ill., assignor to C. N. Briggs, Lincoln, Nebr. Top spinning toy spring-gun .....	387,761	Aug. 14	850	220	44	742
Briggs, Sylvester E., Foster, R. I. Whistle .....	394,243	Dec. 11	755	200	45	1224
Briggs, Warren R., Bridgeport, Conn. Oar-lock .....	394,639	Dec. 18	1373	359	45	1354
Briggs, William, Brooklyn, N. Y. Right and left hand stop and waste faucet .....	388,526	Aug. 28	2039	549	44	985
Briggs, William J., Fort Worth, Tex. Draw-bridge .....	387,708	Aug. 14	776	{ 198 199 }	{ 44 44 }	727
Briggs, William J., South Evanston, Ill. Draw-bridge .....	387,852	Aug. 14	978	255	44	767
Brigham, Charles F., Boston, Mass. Thermostatic valve .....	391,017	Oct. 16	1179	313	45	242
Brigham, Kasson A., Gilroy, Cal. Two-wheeled vehicle .....	380,744	Apr. 10	661	182	43	141
Brigham, Martin E., Philadelphia, Pa. Paper-box-making machinery .....	390,442	Oct. 2	344	91	45	72
Bright, Fred E., Cleveland, Ohio. Garment-supporter .....	385,237	June 26	2005	537	43	1551
Bright, Harry, Warren, Pa. Machine for washing and separating hair .....	389,191	Sept. 11	599	153	44	1192
Bright, James H., St. Louis, Mo. Tile ceiling .....	386,376	July 17	1530	405	44	312
Bright, James H., St. Louis, Mo. Tile for columns .....	386,377	July 17	1531	405	44	313
Bright, James H., St. Louis, Mo. Ceiling-tile .....	386,378	July 17	1531	406	44	313
Bright, James H., St. Louis, Mo. Hanger for ceiling-tiles .....	386,379	July 17	1532	406	44	313
Bright, Jesse, Lewisburg, W. Va. Fence .....	388,338	Aug. 21	1772	472	44	928
Bright, John B., <i>et al.</i> (See Thacker, Daniel W., assignor.)						
Bright, Richard A., assignor to W. A. Peck, trustee, Providence, R. I. Cigar-bunching machine .....	386,234	July 17	1337	{ 353 354 }	{ 44 44 }	276
Bright, Richard A., assignor to W. A. Peck, trustee, Providence, R. I. Roll for cigar-wrapping machines .....	386,235	July 17	1342	354	44	276
Brill Company, J. G. (See Adams, Walter S., assignor.)						
Brill, George M., administrator. (See Amesbury, George W.)						
Brill, John A., Philadelphia, Pa. Tug-hook .....	376,810	Jan. 24	1588	416	42	326
Brill, John A., Philadelphia, Pa. Hame-fastener .....	376,811	Jan. 24	1589	416	42	326
Brill, John A., Philadelphia, Pa. Railway-car .....	378,428	Feb. 28	1632	{ 428 429 }	{ 42 42 }	836
Brillinger, Levi, assignor of one-half to L. H. Kirkby, Collingwood, Ontario, Canada. Snow-plow .....	390,338	Oct. 2	194	52	45	41
Brinck, Gustaf A., and A. V. Rehnström, Stockholm, Sweden. Food for cattle .....	388,329	Aug. 21	1773		44	928
Brinkerhoff, Henry W., Brooklyn, N. Y. Expandible joint for pipes .....	381,825	Apr. 21	2292	596	43	480
Brinkerhoff, Henry W., Brooklyn, N. Y., assignor to J. F. Ward, Jersey City, N. J. Spherical pipe-joint .....	381,826	Apr. 21	2293	{ 596 597 598 599 }	{ 43 43 43 43 }	480
Bringold, John H., assignor of one-half to W. N. Percy, Albany, N. Y. Belt-tightener .....	382,587	May 8	1083	{ 278 279 }	{ 43 43 }	727
Brinkerhoff, Alexander W., deceased, Upper Sandusky, Ohio; M. H. and W. C. Brinkerhoff executors. Syringe .....	383,940	June 5	149	43	43	1149
Brinkerhoff Company. (See Harlow, John R., assignor.)						
Brinkerhoff, Jacob. (See Brinkerhoff, John J., assignor.)						
Brinkerhoff, Jacob. (See Brinkerhoff, Warren M., assignor.)						
Brinkerhoff, Jacob, Auburn, N. Y. Harrow-tooth .....	390,065	Sept. 25	1924	507	44	1464
Brinkerhoff, John J., assignor to J. Brinkerhoff, Auburn, N. Y. Clothes-wringer .....	378,951	Mar. 6	126	37	42	991
Brinkerhoff, John J., assignor to J. Brinkerhoff, Auburn, N. Y. Spring .....	379,502	Mar. 13	935	251	42	1149
Brinkerhoff, Milford H., <i>et al.</i> , executors. (See Brinkerhoff, Alexander W.)						
Brinkerhoff, Warren M., Auburn, N. Y. Spring-tooth for harrows .....	384,188	June 5	513	140	43	1221
Brinkerhoff, Warren M., Auburn, N. Y. Harrow .....	392,311	Nov. 6	190	49	45	630
Brinkerhoff, Warren M., Auburn, N. Y. Harrow .....	392,312	Nov. 6	192	50	45	630

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Brinkerhoff, Warren M., assignor, by mesne assignments, to J. Brinkerhoff, Auburn, N. Y. Clothes-wringer	377,545	Feb. 7	295	76	42	552
Brinkerhoff, Willie C., et al., executors. (See Brinkerhoff, Alexander W.)						
Brinkmann, Augustus H. (See Buschmann, Victor H., assignor.)						
Brintnall, Harold L. (See Barber and Gabriel, assignors.)						
Brinton, George, Harrisburg, Pa. Culinary spring-tongs	385,498	July 3	250	64	44	50
Briscoe, John, Custer City, Pa. Coupling and cut-off for steam and air pipes for car heaters, brakes, &c.	378,284	Feb. 21	1423	372	42	788
Brissant, Eugène, Paris, France. Machine for cutting into strips and reeling paper	375,728	Jan. 3	10	2, 3	42	5
Bristol, Edmund R. (See Wescott and Bristol.)						
Bristol, Edmund R., and E. C. Gran, Jordan, Minn. Can cover and clamp	376,941	Jan. 24	1769	465	42	360
Bristol, Jackson P. (See Knapp, William H., assignor.)						
Bristol, Lambert J., New Haven, Conn. Whiffletree-snap	381,325	Apr. 17	1540	415	43	316
Bristol, William H., Hoboken, N. J. Pressure indicator and recorder	389,635	Sept. 18	1275	336	44	1327
Bristol, William H., and W. E. Geyer, Hoboken, N. J. Differential expansion device for galvanometers	383,095	May 22	1829	480	43	891
Bristow, Frank H., Brooklyn, N. Y. Game	393,291	Nov. 20	1628	427	45	926
Bristow, Ralph E., Rockford, Ill. Lemon-juice extractor	377,140	Jan. 31	2053	538	42	423
Britton, John W., Black Rock, Conn., assignor to Atlantic Ammunition Company, (limited,) New York, N. Y. Cartridge-crimper	379,853	Mar. 20	1478	390	42	1262
Britton, Andrew L., Philadelphia, Pa. Ear-muff	389,735	Sept. 18	1431	373	44	1358
Britton, Clarence R., et al. (See Peacock, John W., assignor.)						
Britton, William H., assignor of one-half to W. H. Britton, Jr., J. M. Richmond, and A. S. McAllister, Buffalo, N. Y. Railway-tie	382,134	May 1	379	99	43	583
Britts, Peter W., Gunnison, Colo. Radiator-regulator	387,552	Aug. 7	536	139	44	676
Britz, John N., Aurora, Ill. Sawing-machine	394,455	Dec. 11	1064	277	45	1223
Broad, Alphonzo H. (See Robbins and Broad.)						
Broad, Alphonso H., assignor of one-half to R. S. Robbins, Berkeley, Cal. Gate	391,734	Oct. 23	2164	585	45	445
Broad, Thomas. (See Anderson, Lee, assignor.)						
Broadbent, Charles F., Baltimore, Md. Composition of matter to be used in the manufacture of medallions, &c.	383,698	May 29	2709		43	1069
Broadbent, Henry T., Philadelphia, Pa. Stop-motion mechanism for doubling and twisting machines	377,881	Feb. 14	820	209	42	665
Broadhurst, Daniel, Dunmore, Pa. Spring for locomotives	380,548	Apr. 3	368	105	43	75
Broady, Marion T., Bartle, Ind. Car-coupling	384,675	June 19	1248	329	43	1375
Brochocki, Thomas D., Paris, France. Bridge	377,887	Feb. 14	827	211 212	42	667
Brock, Fenelon B., Washington, D. C., assignor to C. A. Schieren, Brooklyn, N. Y. Driving-belt	378,229	Feb. 21	1341	354	42	774
Brock, John, and T. Minton, British Alkali Works, Widnes, county of Lancaster, England. Filter-press	390,558	Oct. 2	510	134	45	102
Brock, Matthias, Boston, Mass. Mechanism for grinding dies	380,985	Apr. 10	1037	275	43	210
Brock, William H., Brooklyn, N. Y. Wrench	389,685	Sept. 18	1333	355	44	1342
Brockman, Herman, Cincinnati, Ohio. Safety-brake	376,365	Jan. 10	902	236	42	182
Brockman, Herman, Cincinnati, Ohio. Brake for cars	386,766	July 24	2097	551	44	432
Brockway, N. J. (See Palmer, Levi H., assignor.)						
Broderick, Martin, Bedias, Tex. Hammock or swing	381,827	Apr. 24	2295	597	43	480
Brodie, Daniel M. (See Dobson, Edward, assignor.)						
Brodie, James R., San Francisco, Cal. Inking attachment for printing-presses	376,426	Jan. 17	994	260	42	206
Brodie, James R., Portage, Wis. Leg and foot protector	392,584	Nov. 13	604	151	45	717
Brodrick, Allen W., Mahomet, Ill. Windmill	384,232	June 12	589	160	43	1244
Brodrick John, New York, N. Y. Prepared sheet for stencils	377,706	Feb. 7	534		42	595
Brogard, Henry A., Philadelphia, Pa. Gas-burner	379,046	Mar. 6	271	78, 79	42	1017
Brohard, Joseph M., Clarksburg, W. Va. Door-check	391,682	Oct. 23	2089	566	45	430
Brokaw, Isaac, assignor of one-half to A. F. Warneke, Litchfield, Ill. Sash-holder	384,607	June 19	1149	304	43	1355
Brokaw, Norman H., Kaukauna, Wis. Machine for shaving off the bark from logs	379,559	Mar. 20	1018	272	42	1174
Brokhaune, Alfred V., New York, and C. Langbein, Brooklyn, N. Y., said Brokhaune assignor to said Langbein. Attachable and detachable back for razor-blades	377,926	Feb. 14	885	228	42	679
Brombacher's Sons, Jacob. (See Koenig, Nicolas, assignor.)						
Bromley, Daniel, Worthville, Ky. Press	391,683	Oct. 23	2091	566	45	430
Bronner, Manly D., assignor of one-half to W. K. Jenner, Ilion, N. Y. Rotary harrow	387,136	July 31	2687	704	44	550
Brook, James W., Lynchburg, Va. Automatic device for shutting water-cocks, &c.	376,287	Jan. 10	793	210	42	162
Brook, James W., Lynchburg, Va. Automatic temperature-regulator	3 7,208	Aug. 7	19	4	44	576
Brooke, George, Birdsborough, Pa. Machine for rolling melted metal	379,096	Mar. 6	347	99	42	1031
Brooke, John H., Chicago, Ill. Coat-protector	387,575	Aug. 7	583	153	44	684
Brooker, Norton. (See Ross and Brooker.)						
Brookes, Edith, executrix. (See Underwood and Brookes.)						
Brookes, Leonard E. (See Kahler and Brookes.)						
Brookes, Leonard E., assignor to Goss Printing Press Company, Chicago, Ill. Accumulating sheets for printing-machines	376,288	Jan. 10	795	210 211	42	162
Brookes, Leonard E., assignor to himself, C. and J. J. Kahler, Chicago, Ill. Paper-folder	389,192	Sept. 11	600	154	44	1193
Brookes, W. Colborne. (See Underwood and Brookes.)						
Brooks, Benjamin P., Manchester, N. H. Outside window and means for securing the same	377,013	Jan. 31	1874	493	42	389
Brooks, Byron A., Brooklyn, N. Y. Type-writer	379,095	Mar. 6	347	99	42	1031
Brooks, Chapin C., Hallowell, Me. Hay-knife	386,183	July 17	1246	332	44	259
Brooks & Company, E. J. (See Brooks, Edward J., assignor.)						
Brooks & Company, E. J., et al. (See Brooks, Edward J., assignor.)						
Brooks, David, Jr., Philadelphia, Pa. Game apparatus	395,261	Dec. 25	2394	613	45	1557
Brooks, David, Jr., assignor to Electric Cable Construction and Maintenance Company, Philadelphia, Pa. Anti-induction composition for electric cables	383,096	May 22	1831		43	891
Brooks, David, Jr., assignor to Electric Cable Construction and Maintenance Company, Philadelphia, Pa. Support for electric wires	383,097	May 22	1831	480	43	892
Brooks, David, Jr., assignor to Electric Cable Construction and Maintenance Company, Philadelphia, Pa. Covering for electric wires and cables	383,098	May 22	1832		43	892
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Company, New York, N. Y. Seal	379,885	Mar. 20	1535	405	42	1273
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Company, New York, N. Y. Seal	391,295	Oct. 16	1569	416	45	316
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Company, New York, N. Y. Seal-lock	393,688	Nov. 27	2230	585	45	1055
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Company, New York, N. Y., and C. H. Crosby, Chicago, Ill. Safety-case for money-packages, &c.	381,326	Apr. 17	1541	416	43	317
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Company, New York, N. Y., and C. H. Crosby, Chicago, Ill. Safety-case for money-packages, &c.	390,559	Oct. 2	512	134	45	103

## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Brooks, Harry, assignor to himself and H. Tutthill, Dunkirk, N. Y. Touch-regulating rail for pianos or organs	391,940	Oct. 30	2477	670	45	517
Brooks, George W., Mebane, N. C. Apparatus for treating leaf-tobacco	385,038	June 26	1802	463	43	1491
Brooks, James W., trustee. (See Allen, Edward B., assignor.)						
Brooks, James W., trustee. (See Benjamin, Charles H., assignor.)						
Brooks, James W., trustee. (See Cunningham, James H., assignor.)						
Brooks, James W., trustee. (See Ellis, Adelbert E., assignor.)						
Brooks, James W., trustee. (See Fairfield, Hadley P., assignor.)						
Brooks, James W., trustee. (See Fairfield and Benjamin, assignors.)						
Brooks, James W., trustee. (See Freeman, James F., assignor.)						
Brooks, James W., trustee. (See Glidden, Charles W., assignor.)						
Brooks, James W., trustee. (See Goddu, Louis, assignor.)						
Brooks, James W., trustee. (See Harrigan, M. Thaddeus, assignor.)						
Brooks, James W., trustee. (See Horne and Henderson, assignors.)						
Brooks, James W., trustee. (See Hussey, Thomas, assignor.)						
Brooks, James W., trustee. (See Packard, Jerome L., assignor.)						
Brooks, James W., et al., trustees. (See Goddu, Louis, assignor.)						
Brooks, John A., and W. C. Beal, assignors of one-third to T. Starbuck, Fernandina, Fla. Automatic addressing-machine	392,098	Oct. 30	2724	740	45	565
Brooks, John C., assignor of one-half to R. Blackburn, Paterson, N. J. Shuttle-changing mechanism for looms	390,339	Oct. 2	194	52	45	42
Brooks, Levi, Black Diamond, Wash. Ter. Device for tightening fence-posts	376,468	Jan. 17	1053	276	42	217
Brooks, Moses W., assignor of one-third to J. S. Larmour, New York, N. Y. Burglar-alarm	389,361	Sept. 11	851	218	44	1243
Brooks, Reuben, assignor to Russia Cement Company, Gloucester, Mass. Liquid-glue packing-can	377,014	Jan. 31	1876	493	42	389
Brooks, S. O. (See McDonald, Peter E., assignor.)						
Brooks, William B. (See Hayes, John W., assignor.)						
Brooks, William D., Baltimore, Md. Can-soldering machine	389,438	Sept. 11	974	{ 260 261 }	44	1266
Brooksbank, Frederick C. (See Hicks and Brooksbank.)						
Brooksbank, Frederick C., et al. (See Glossop, Gilbert, assignor.)						
Brosius, John M., Atlanta, Ga. Motor	382,865	May 15	1463	381	43	811
Brosius, John M., assignor of one-half to T. H. Jones, Atlanta, Ga. Running-gear. (Re-issue)	10,922	Apr. 17	1841	487	43	375
Brozka, Nicholas A., Bacon, Kans. Dust-conveyer	385,590	July 3	385	99	44	76
Brosnan, Charles H. M. (See Lawrence, Robert S., assignor.)						
Bross, John, Dexter, Mich. Car-tip	392,256	Nov. 6	117	30	45	617
Brosseau, Tonssaint, et al. (See Martel, Adelard F., assignor.)						
Brotherton, Robert, Jr., Albion, Nebr. Device for converting motion	385,406	July 3	105	29	44	23
Brott, George F., Bladensburg, Md. Cotton-gin	379,760	Mar. 20	1315	351	42	1231
Brott, George F., Bladensburg, Md. Cotton-gin	394,640	Dec. 18	1374	359	45	1354
Brott, Jerome L., Eustis, Nebr. Attachment for check-row corn-planters	390,066	Sept. 25	1925	507	44	1464
Brott, John R., assignor to W. W. Coomes, Long Meadow, Mass. Chair	384,887	June 19	1570	408	43	1435
Brough, Frank, Indianapolis, Ind. Handle attachment	375,540	Feb. 28	1789	472	42	869
Brough, Thomas J., Baltimore, Md. Burglar-alarm	386,236	July 17	1344	354	41	277
Broughall, John J., Butte City, Mont. Ter. Stamp-guide	379,931	Mar. 27	1608	427	42	1297
Brougher, David J., Cincinnati, Ohio, assignor of two-thirds to W. Griffith, Covington, Ky., and J. Seymour, Oakley, Ohio. Angle-clamp for the corners of tables, desks, &c	383,167	May 22	1927	504	43	911
Brouse, Joseph, New Berlin, Pa. Combination-tool	377,142	Jan. 31	2055	538	42	424
Broussier, Gustave, Paris, France. Paper-cutting machine	376,025	Jan. 3	420	{ 111 112 }	42	84
Brower, Abraham T. H., Chicago, Ill. Folding table	390,340	Oct. 2	197	52	45	42
Brower, Fredrick C., Syracuse, N. Y. Automatic electric gas cut-off for railway-cars	384,676	June 19	1350	329	43	1375
Brown, Aaron L., Chicago, Ill. Filing-receptacle	379,560	Mar. 20	1019	273	42	1174
Brown, Aaron L., Chicago, Ill. Filing-receptacle	379,678	Mar. 20	1197	317	42	1207
Brown, Aaron L., Chicago, Ill. Filing-receptacle	386,451	July 24	1654	436	44	349
Brown, Alexander E. (See Thompson, Charles H., assignor.)						
Brown, Alexander E., Cleveland, Ohio. Tramway for carrying elevated loads	382,634	May 8	1148	{ 295 296 }	43	739
Brown, Alexander E., Cleveland, Ohio. Elevated tramway for hoisting and conveying machines	382,635	May 8	1150	296	43	739
Brown, Alexander E., Cleveland, Ohio. Apparatus for handling material	382,946	May 15	1577	412	43	834
Brown, Alexander E., Cleveland, Ohio. Sheave-block for hoisting and conveying machines	390,341	Oct. 2	198	53	45	42
Brown, Alexander E., Cleveland, Ohio. Hoisting and conveying machine	390,560	Oct. 2	513	135	45	103
Brown, Alexander T., Syracuse, N. Y. Type-writing machine	376,180	Jan. 10	647	173	42	135
Brown, Alexander T., Syracuse, N. Y. Air-gun	381,109	Apr. 17	1245	335	43	259
Brown, Alfred G., Egan, Dak. Ter. Evener for vehicles	379,932	Mar. 27	1609	{ 427 428 }	42	1297
Brown, Alonzo W., Evanston, Wyo. Ter. Telephone-receiver	378,385	Feb. 21	1560	408	42	815
Brown, Andrew, et al. (See Connett, Matthew F., assignor.)						
Brown, Archie. (See Sommerfield, Heinrich, assignor.)						
Brown, Arthur F. (See Stoddard and Brown.)						
Brown, Arthur G., Cathart, Scotland. Compound or expansive engine	391,941	Oct. 30	2478	670	45	517
Brown, Cary, Fort Atkinson, Wis. Windmill	375,729	Jan. 3	10	3	42	5
Brown, Charles, Emporia, Kans. Barber's dressing-case	391,506	Oct. 23	1857	498	45	381
Brown, Charles A., and M. M. Clark, assignors to Western Electric Company, Chicago, Ill. Galvanic battery	384,958	June 26	1665	433	43	1462
Brown, Charles E., Rome, N. Y. Pressure-regulator	389,791	Sept. 18	1503	396	44	1374
Brown, Charles E. L., Zurich, assignor to Werkzeug und Maschinenfabrik Oerlikon, Oerlikon, Switzerland. Dynamo and motor	386,685	July 24	1986	{ 524 525 }	44	413
Brown, Charles F. (See Hodskinson, Jabez, assignor.)						
Brown, Charles F. (See Riedell, John H., assignor.)						
Brown, Charles F., et al. (See Brownson, Herbert S., assignor.)						
Brown, Charles H., Syracuse, N. Y. Car starter	390,443	Oct. 2	345	91	45	73
Brown, Charles M., Rockford, Ill. Compound-lever punch	382,947	May 15	1540	412	43	834
Brown, Charles T., Indianapolis, Ind. Relief-valve for automatic air-brakes	389,193	Sept. 11	601	154	44	1193
Brown, Charles T., assignor to F. L. Brown, Chicago, Ill. Electric smelling-bottle	383,794	May 29	2875	756	43	1099
Brown, Charles W., Montreal, Quebec, Canada, assignor to American Bell Telephone Company, Boston, Mass. Telephone-transmitter	386,380	July 17	1533	406	44	313
Brown, Charles W., assignor to Bell Telephone Company of Canada, Montreal, Quebec, Canada. Telephone system	393,612	Nov. 27	2117	534	45	1032
Brown, D. J. (See Schimansky, Otto, assignor.)						
Brown, Daniel T., Roxbury, Conn. Knife-blade burnisher	380,327	Apr. 17	1543	416	43	317



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Brown, David, assignor of one-half to J. A. Vaughn, Cuyahoga Falls, Ohio. Oatmeal-machine	380,177	Mar. 27	1956	522	42	1365
Brown, David T., Walker, Mo. Wire-tightener	388,626	Aug. 28	2184	587	41	1013
Brown, Delos S. (See Plowe, Harold C., assignor.)						
Brown, Dewalden L., Franklin, Mass. Hoisting-gear	389,052	Sept. 4	353	93	44	1140
Brown, Edward, Philadelphia, Pa. Mercury pressure-gage	379,305	Mar. 13	643	175	42	1093
Brown, Edward, Philadelphia, Pa. Pyrometer	393,962	Dec. 4	333	90	45	1136
Brown, Edward, Philadelphia, Pa. Pyrometer	393,963	Dec. 4	334	90	45	1136
Brown, Edward G. (See King and Brown.)						
Brown, Elmer E., Portland, Me., assignor of one-half to J. S. Williams, Boston, Mass. Safety rein-fastener	382,796	May 15	1379	362	43	793
Brown, Flora L. (See Brown, Charles T., assignor.)						
Brown Folding Machine Co. (See Downing, Wellington, assignor.)						
Brown, Fred, H., New York, N. Y., assignor to Magneto Telegraph Company, of New York. Magneto-telephone	376,706	Jan. 17	1415	372	42	285
Brown, Fred, H., New York, N. Y., assignor to Magneto Telegraph Company, of New York. Magneto-telephone	376,707	Jan. 17	1415	372	42	285
Brown, Frederick W. (See Quinn, Patrick, assignor.)						
Brown, Fredrick H., Lebanon, N. H. Dental mouth-opening forceps	390,561	Oct. 2	516	135	45	104
Brown, Fredrick J., and D. H. James, Meadow Brook, Pa. Extension-gage	379,361	Mar. 13	718	195	42	1108
Brown, George, San Francisco, Cal. Protecting piles	381,671	Apr. 24	2057	538	43	436
Brown, George A., Pittsburg, Pa. Shield or cover for heaters and stoves for use on railway-cars	383,615	May 29	2597	636	43	1045
Brown, George D. (See Waite and Brown.)						
Brown, George F. (See Gibbons, Topley, and Brown)						
Brown, George F., Constable Hook, N. J. Car-coupling	377,882	Feb. 14	821	209	42	666
Brown, George W., et al. (See Griffin, John H., assignor.)						
Brown, George W., McNairy, Tenn. Chicken-coop	376,230	Jan. 10	718	191	42	147
Brown, Gilman W. (See Mosher and Brown.)						
Brown, Gilman W., West Newbury, Mass. Lubricator	382,752	May 15	1313	345	43	780
Brown, Gilman W., West Newbury, assignor of one-half to C. D. Mosher, Amesbury, Mass. Lubricator	391,834	Oct. 30	2325	637	45	486
Brown, Harold P., Chicago, Ill. System of combined arc and incandescent electric lights	387,615	Aug. 7	640	166	44	695
Brown, Harriet A., Boston, Mass. Dress-waist	392,493	Nov. 6	467	117	45	683
Brown, Harriet A., Boston, Mass. Making dress-waists	392,494	Nov. 6	467	118	45	684
Brown, Harrison H., Ladoga, Wis. Safety-snap for carriage-thills	376,469	Jan. 17	1053	276	42	217
Brown, Harvey, Brandt, Ohio. Bicycle	393,417	Nov. 27	1813	478 } 479 }	45	970
Brown, Henry A., Denver, Colo. Apparatus for drilling and countersinking	381,311	Apr. 3	7	2	43	4
Brown, Henry L., Mason, Mich. Store-service seat	392,495	Nov. 6	468	118	45	684
Brown, Horace, assignor of one-half to J. Laxton, Toronto, Ontario, Canada. Pipe-threading die-stock	390,444	Oct. 2	346	91	45	73
Brown, Irving H. (See Heimann, Salomon, assignor.)						
Brown, Isaac M., Columbus, Ind. Railway-switch	380,086	Mar. 27	1836	429	42	1341
Brown, Isham, Knoxville, Tenn. Alternative tonic	391,776	Oct. 30	2321		45	466
Brown, James C., Sedalia, Mo. Mail-bag lock	380,986	Apr. 10	1041	275	43	211
Brown, James H., Richmond, Ind. Car-brake	384,507	June 12	1003	261	43	1319
Brown, James H., Vernon, Ill. Stove	386,914	July 31	2359	619 } 620 }	44	490
Brown, James O. (See Newell and Brown.)						
Brown, James O., assignor of one-half to J. S. Newell, Boston, Mass. Tree-protector	377,448	Feb. 7	152	35	42	524
Brown, James R., Hawthorn, Ill. Eye-salve	392,904	Nov. 13	1069		45	809
Brown, Jesse J., and G. F. Edgington, Pleasant Corners, Ohio. Automatic cut-off	391,877	Oct. 30	2384	646	45	498
Brown, John C., et al. (See Herndon, George P., assignor.)						
Brown, John E., Honolulu, Hawaii. Sash-fastener	381,210	Apr. 17	1375	368	43	283
Brown, John F., assignor to A. K. Baker, Indianapolis, Ind. Order-holder	392,945	Nov. 13	1126	293	45	820
Brown, John H. (See McGaffey, Ives W., assignor.)						
Brown, John H., New York, N. Y. Cartridge	389,496	Sept. 11	1052	280	44	1279
Brown, John H., Baltimore, Md., assignor to M. R. Wise, Salero, Ariz. Ter. Recovering valuable contents from sunken ships	388,256	Aug. 21	1643	439 } 440 }	44	904
Brown, John H., Baltimore, Md., assignor to M. R. Wise, Salero, Ariz. Ter. Apparatus for recovering valuable contents from sunken ships	388,257	Aug. 21	1647	440	44	904
Brown, John N., New London, Conn. Vehicle-gear	391,684	Oct. 23	2091	567	45	430
Brown, John W. (See Smdow, John M., assignor.)						
Brown, Joseph H., assignor to himself and H. L. Spencer, Social Circle, Ga. Millstone-dress	393,534	Nov. 27	2002	523	45	1009
Brown, Joseph W., Miltonvale, Kans. Cultivator for listed corn	380,549	Apr. 3	369	105	43	75
Brown, Katie C., et al. (See Tuttle, Washington I., assignor.)						
Brown, Lewis A., St. Louis, Mo. Basket	378,492	Feb. 28	1729	456	42	857
Brown, Lewis A., St. Louis, Mo. Seal-lock	388,258	Aug. 21	1653	441	44	905
Brown, Lewis A., St. Louis, Mo. Hasp-lock	388,394	Aug. 28	1863	497	44	950
Brown, Lewis A., St. Louis, Mo. Seal-lock	388,818	Sept. 4	14	5	44	1075
Brown, Lewis A., St. Louis, Mo. Seal for seal-locks	388,819	Sept. 4	15	5, 6	44	1075
Brown, Lewis A., St. Louis, Mo. Sash-fastener	391,685	Oct. 23	2092	567	45	431
Brown, Lewis A., St. Louis, Mo. Seal	392,173	Oct. 30	2841	770	45	587
Brown, Lewis A., St. Louis, Mo. Seal-lock	392,496	Nov. 6	469	118	45	684
Brown, Lewis A., St. Louis, Mo. Seal-lock	394,094	Dec. 4	525	141	45	1171
Brown, Lewis A., and V. S. Ketchum, assignors of one-third to J. B. Ulrich, St. Louis, Mo. Car-seal	378,655	Feb. 28	1955	519	42	902
Brown, Linus W., New Orleans, La. Elevated frame-work and support for electric wires and street-railways	390,001	Sept. 25	1825	483 } 484 }	44	1443
Brown, Martin L., Reinhardt, Tex. Hand-rest	389,053	Sept. 4	355	93	44	1140
Brown, Minor W., Gainesville, Ga. Car-coupling	385,658	July 3	486	125	44	94
Brown, Minor W., Gainesville, Ga. Axle-lubricator	391,942	Oct. 30	2479	604	45	518
Brown, Morris H., Yonkers, N. Y. Rail or bar bender	383,168	May 22	1928	504	43	911
Brown, Orlando. (See Grant, Charles N., assignor.)						
Brown, Owen D., assignor to D. E. McSherry & Co., Dayton, Ohio. Feed-cutter	393,322	Nov. 20	1671	441	45	935
Brown, Perry, Louisville, Ky. Car-coupling	378,037	Feb. 14	1041	272	42	709
Brown, Perry, Louisville, Ky. Car-coupling	376,038	Feb. 14	1042	272	42	711
Brown, Perry, Louisville, Ky. Freight-car	382,685	May 15	1230	330	43	764
Brown, Perry, Louisville, Ky. Seal-lock	383,434	May 29	2325	616 } 617 }	43	990
Brown, Perry, assignor to D. E. Doherty, Louisville, Ky. Rail-joint	386,452	July 24	1656	436	44	350



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Brown, Perry and W. Trabue; said Trabue assignor to D. E. Doherty, Louisville, Ky. <i>Viso</i> .....	380,178	Mar. 27	1957	522	42	1365
Brown, Perry J., Albuquerque, N. Mex. Ter. Locomotive ash-pan.....	377,600	Feb. 7	376	95	42	567
Brown, Perry J., Winslow, Ariz. Ter. Locomotive smoke-stack.....	378,762	Feb. 28	2105	556	42	929
Brown, Peter S. (See Orr and Brown.)						
Brown, Philip, San Francisco, Cal. Pin-rail attachment for ships.....	392,099	Oct. 30	2727	740	45	565
Brown, Ralph J. (See Sedgwick, Womersley, and Brown.)						
Brown, Robert. (See Mundell, Harris, assignor.)						
Brown, Robert. (See Whiteley and Brown.)						
Brown, Robert, assignor to Hoover & Gamble, Miamisburg, Ohio. Knotting mechanism for harvesters.....	379,886	Mar. 20	1537	{ 405 406 }	42	1274
Brown, Robert M. G., U. S. Navy. Boat-detaching apparatus.....	378,763	Feb. 28	2106	556	42	929
Brown, Robert T., Boston, Mass., and W. Orr, assignors to New Jersey Wire Cloth Company, Trenton, N. J. Fire-proof material for drop-curtains.....	387,137	July 31	2688	705	44	550
Brown, Salmon. (See Blatchley, Washburn, assignor.)						
Brown, Samuel, Seaford Hundred, Del., assignor to A. J. Reach and B. F. Shibe, Philadelphia, Pa. Machine for balling cord or yarn.....	389,054	Sept. 4	356	94, 95	44	1140
Brown, Samuel E., Cleveland, Ohio. Making body-loops for carriages.....	390,112	Sept. 25	1997	532	44	1479
Brown, Sidney F. (See Morton and Brown.)						
Brown, Sidney F., et al. (See Martin, John D., assignor.)						
Brown, Silas M., Chicago, Ill. Ironing-board.....	389,920	Sept. 25	1717	454	44	1422
Brown Specialty Manufacturing Company. (See Campfield, Matthew E., assignor.)						
Brown, Theodore H., assignor to H. C. Forsyth, H. P. Proctor, and O. K. Skaar, Viroqua, Wis. Combined wooden sheathing and lath.....	387,967	Aug. 14	1168	317	44	805
Brown, Thomas H., Chicago, Ill. Hay-hook attachment.....	375,865	Jan. 3	182	50, 51	42	40
Brown, Walter F., Providence, R. I. Steam-engine indicator.....	377,601	Feb. 7	377	96	42	567
Brown, Walter M., Albany, N. Y. Device for heating coils and pipes by gas.....	377,015	Jan. 31	1877	494	42	389
Brown, Walter M., Albany, N. Y. Device for heating water by gas.....	391,399	Oct. 23	1712	455	45	351
Brown, Walter M., Albany, N. Y. Steam-generator.....	391,400	Oct. 23	1713	456	45	351
Brown, Walter M., Albany, N. Y. Feed-water heater.....	391,686	Oct. 23	2093	567	45	431
Brown, Walter M., Albany, N. Y. Gas-burning steam-generator.....	392,986	Nov. 20	1201	313	45	841
Brown, William, Selkirk, Scotland. Carding engine.....	383,435	May 29	2327	{ 617 618 }	43	991
Brown, William, Duncannon, assignor of one-half to H. W. Sheibley, Philadelphia, Pa. Portable fire-escape.....	381,672	Apr. 24	2058	538	43	437
Brown, William A., Boissevan, Manitoba, assignor of one-half to B. Capron, Paris, Canada. Sheaf-carrier.....	389,136	Sept. 4	503	128	44	1166
Brown, William E., assignor of one-half to Nathab, Dohrman & Co., San Francisco, Cal. Lamp-shade holder.....	386,686	July 24	1987	525	44	413
Brown, William F., Waco, Tex. Corn or cotton dropper.....	395,262	Dec. 25	2395	613	45	1557
Brown, William H. (See Wright and Brown.)						
Brown, William H., Indianapolis, Ind. Fire-proof door.....	384,421	June 12	871	227	43	1295
Brown, William H., New York, N. Y., assignor to Brown's Seamless Metal Company, Jersey City, N. J. Shaft for steamships.....	376,135	Jan. 10	584	156	42	123
Brown, William H., assignor to Brown's Seamless Metal Company, Jersey City, N. J. Projectile.....	376,728	Jan. 24	1450	381	42	301
Brown, William H., Jersey City, N. J., assignor to Brown's Seamless Metal Company, of New Jersey. Making seamless tubes.....	377,347	Jan. 31	2360	682	42	480
Brown, William H., Jersey City, N. J., assignor to Brown's Seamless Metal Company, of New Jersey. Making seamless tubes.....	377,348	Jan. 31	2362	683	42	481
Brown, William H., Jersey City, N. J., assignor, by mesne assignments, to Brown's Seamless Metal Company, of New Jersey. Car-wheel.....	387,209	Aug. 7	20	4	44	576
Brown, William J., et al. (See Clerk, James D., assignor.)						
Brown, William J., Jr., assignor to Wire Staple Company, Philadelphia, Pa. Machine for setting staples.....	382,025	May 1	217	58	43	553
Brown, William M., Jr., Sacramento, Cal. Safe or vault door lock.....	393,883	Dec. 4	222	59, 60	45	1114
Brown, William O., Jr., et al. (See Mitchamore, Charles H., assignor.)						
Brown, William T., et al. (See Platisher, Mathias, assignor.)						
Brown, William T., Swan, Ky. Wagon-jack.....	394,890	Dec. 18	1672	437	45	1414
Browne, Arthur B., et al. (See Adams, Charles W., assignor.)						
Browne, Charles H., Milwaukee, Wis. Flour-bolt.....	382,135	May 1	380	99	43	583
Browne, George J., New York, N. Y., assignor to Dana, Tucker & Co., Boston, Mass. Forming trade-marks and attaching them to fabrics.....	377,141	Jan. 31	2054	538	42	424
Browne, Joseph P., Holyoke, Mass. Machine for cutting paper.....	393,535	Nov. 27	2004	524	45	1009
Browne, Oliver L. F. (See Hozel and Browne.)						
Browne, Thomas E. (See Huffman, Orlando, assignor.)						
Browne, Walker G., Atlanta, Ga., assignor to United States Automatic Water Cut Off Company, of Georgia. Fire-extinguisher.....	378,285	Feb. 21	1424	372	42	788
Browne, Walker G., Atlanta, Ga., assignor to United States Automatic Water Cut-Off Company, of Georgia. Automatic cut-off.....	389,987	Apr. 10	1042	{ 275 276 }	43	211
Browne, Walker G., Atlanta, Ga., assignor to United States Automatic Water Cut-Off Company, of Georgia. Anti-freezing device for water-pipes.....	382,588	May 8	1084	279	43	727
Browne, Walter D., Seneca Falls, assignor to F. C. Timpson, Auburn, N. Y. Electric signaling-box.....	383,941	June 5	150	44	43	1149
Brownell, Daniel W., Newton Centre, Mass. Harness-hook.....	383,344	May 22	2174	575	43	957
Brownell, Daniel W., Newton Centre, Mass. Checkrein-hook.....	389,543	Sept. 18	1192	295	44	1300
Brownell, Emerson P., Beche Plain, Quebec, Canada. Manufacturing spools.....	384,677	June 19	1252	329	43	1375
Brownell, Frank A., assignor to Eastman Dry Plate and Film Company, Rochester, N. Y. Camera attachment.....	388,259	Aug. 21	1654	441	44	905
Brownell, Frederick B., St. Louis, Mo. Passenger-vehicle.....	380,617	Apr. 3	468	182	43	95
Brownell, Frederick B., St. Louis, Mo. Fare-box.....	390,946	Oct. 9	1046	{ 276 277 278 }	45	212
Browning, Clinton, Shousetown, Pa. Cigar-bunching machine.....	383,342	May 22	2175	{ 575 576 577 }	43	957
Browning, Clinton, Shousetown, and R. H. Logan, Allegheny, assignors to Eclipse Cigar Machine Company, (limited), Pittsburgh, Pa. Cigar-bunching machine.....	392,100	Oct. 30	2728	{ 741 742 743 }	45	566
Browning, John M. and M. S. Ogden, Utah Ter. Magazine fire-arm.....	385,238	June 26	2096	537	43	1551
Browning, John M., and M. S. Ogden, Utah Ter., assignor to Winchester Repeating Arms Company, New Haven, Conn. Magazine fire-arm.....	376,576	Jan. 17	1199	{ 317 318 }	42	245
Browning, Josiah, Chicago, Ill. Paint compound.....	389,497	Sept. 11	1053	.....	44	1279
Browning, Matthew S. (See Brownlog, John M. and M. S.)						
Brownlee, George, Jr., Penola, South Australia. Thill-coupling.....	387,762	Aug. 14	853	220	44	742
Brownley, Patrick, St. John, New Brunswick, Canada. Brake-shoe.....	385,659	July 3	487	126	44	95

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Brownlow, Frederick W., Manchester, county of Lancaster, England. Filter .....	388,017	Aug. 21	1246	{ 338 339 }	44	829
Brown's Seamless Metal Company. (See Brown, William H., assignor.)						
Brown's Seamless Metal Company. (See Seymour, Frederick J., assignor.)						
Brownson, Herbert S., Boston, assignor of one-third to C. F. Brown, Reading, and A. W. Crossley, Boston, Mass. Cutting-nippers .....	386,736	July 24	2057	542	44	425
Broyles, George E., assignor of two-thirds to C. W. Gray and F. A. Vaughan, Ringgold, Ga. Vehicle-wheel .....	384,189	June 5	515	140	43	1221
Bruce, Edmund A., and H. J. Campbell, Yankton, Dak. Ter. Combined inkstand and pen-rack .....	387,280	Aug. 7	114	31	44	594
Bruce, Hunter, St. Thomas, Ontario, assignor of one-half to I. H. Radford, Toronto, Canada. Spark-arrester .....	382,948	May 15	1582	413	43	834
Bruce, Joseph H., Elberton, Ga. Pump .....	387,138	July 31	2659	705	44	550
Bruce, Norman H., Waterford, N. Y. Brush attachment for machines for uniting knit fabrics .....	392,005	Oct. 30	2573	699	45	535
Bruce, Robert and S. T., Marshall, Mo., assignors of one-half to E. W. Anderson, Washington, D. C. Plow .....	389,498	Sept. 11	1034	280	44	1279
Bruce, Sidney T. (See Bruce, Robert and S. T.)						
Bruce, William. (See Spicer, William M., assignor.)						
Bruce, William, Wellsville, N. Y. Fire-escape .....	380,179	Mar. 27	1958	{ 522 523 }	42	1365
Bruce, William, Wellsville, N. Y. Fire-escape .....	390,445	Oct. 2	347	92	45	73
Bruce, William, Wellsville, N. Y. Fire-escape .....	390,446	Oct. 2	349	92	45	74
Bruckerman, Frederick. (See Bruckerman, Herman, assignor.)						
Bruckerman, Herman, Table Rock, assignor of one-half to F. Bruckerman, Poker Flat, Cal. Can-opener .....	376,577	Jan. 17	1204	318	42	246
Brudin, Julian A., New York, N. Y. Valve .....	393,536	Nov. 27	2006	524	45	1010
Bruegger, Abraham, Jr., assignor to E. B. Preston, Chicago, Ill. Water-tower truck .....	383,699	May 29	2710	{ 715 716 }	43	1069
Brüggemann, Friedrich A., Altona, near Hamburg, Germany. Valve apparatus for automatic vacuum-brakes .....	394,330	Dec. 11	889	234	45	1251
Brühl, Frederick, and J. Ramm, Fort Shaw, Mont. Ter. Spark-arrester .....	378,188	Feb. 21	1266	335	42	760
Brunbaugh, Samuel A., Chicago, Ill. Automatic feed for boring bars .....	383,210	May 22	1987	521	43	923
Bruue, Friedrich, Elizabeth, N. J. Wire-bending tool .....	394,331	Dec. 11	890	234	45	1252
Brunetti, Charles J., Paris, France, assignor to Roessler & Hasslacher, New York, N. Y. Ornamenting articles of glass, porcelain, &c. ....	390,447	Oct. 2	350	.....	45	74
Brünjes, Ferdinand, Leopoldshalle, Prussia, Germany. Obtaining potassium carbonate. ....	376,366	Jan. 10	903	.....	42	182
Brümler, Oscar, New York, N. Y. Apparatus for charging liquids with carbonic-acid gas .....	390,562	Oct. 2	516	135	45	104
Brümler, Oscar, New York, N. Y. Apparatus for carbonating liquids .....	394,821	Dec. 18	1673	438	45	1415
Brümler, Oscar, New York, N. Y., and E. Capitaine, Berlin, Germany. Hydrocarbon motor. ....	394,953	Dec. 25	1905	493	45	1467
Brunsen, Edward W., Jr., and J. G. Gladding, Bristol, R. I. Reversible overalls .....	386,422	July 17	1610	422	44	332
Brüser, Frank, assignor of one-half to W. Charles, Pittsburg, Pa. Nut-making machine .....	381,872	Apr. 24	2365	{ 614 615 }	43	494
Brush, Charles F., Cleveland, Ohio. Electro-magnetic device .....	376,630	Jan. 17	1299	{ 341 342 }	42	263
Brush, Charles F., Cleveland, Ohio. Governor for electro-magnetic motors .....	383,857	June 5	11	4	43	1123
Brush, Charles F., Cleveland, Ohio. Safety attachment for electric motors .....	391,114	Oct. 16	1316	331	45	268
Brush Electric Company. (See Pfannkuche, Gustav, assignor.)						
Brush Electric Company. (See Seymour, Henry A., assignor.)						
Brusie, James, Oakland, Cal. Animal-trap .....	383,700	May 29	2714	717	43	1070
Bruss, Julius, Milwaukee, Wis. Split pulley .....	384,014	June 5	255	73	43	1170
Bruyère, John, Chicago, Ill. Clutch .....	385,093	June 26	1883	481	43	1508
Bryan, Belden T., Evansville, Wis. Wrench .....	384,743	June 19	1350	352	43	1394
Bryan, George B. (See Smith, Edwin D., assignor.)						
Bryan, Henry, Modesto, Cal. Header attachment for harvesters .....	387,763	Aug. 14	854	{ 220 221 }	44	742
Bryan, James G., Philadelphia, Pa. Steam-boiler .....	383,340	Aug. 21	1773	473	44	923
Bryan, John M., San Francisco, Cal. Ore-crusher .....	392,661	Nov. 13	715	{ 180 181 }	45	737
Bryan, Thomas A. (See Smith, Ely, and Bryan.)						
Bryan, William N., assignor of one-half to H. E. Neff, Ada, Ohio. Two-wheeled vehicle. ....	378,493	Feb. 28	1730	{ 456 457 }	42	858
Bryant, Calvin, assignor of one-half to S. C. Keeler, Keene, N. H. Band sawing-machine. ....	380,857	Apr. 10	831	226	43	172
Bryant, Charles A., Wakefield, Mass. Egg-beater .....	386,105	July 17	1141	303	44	237
Bryant, Clark B. (See Goodrich, R. Elmer, assignor.)						
Bryant, David N., assignor of one-half to J. E. Batte, Mendota, Minn. Hinge .....	386,800	July 31	2166	570	44	455
Bryant, Edson L., assignor of one-half to Wallace & Sons, Ansonia, Conn. Lamp-extinguisher .....	380,858	Apr. 10	832	226	43	172
Bryant, Edson L., and E. E. Trumbour, assignor of one-half to Wallace & Sons, Ansonia, Conn. Suspension device for lamps .....	390,837	Oct. 9	895	237	45	182
Bryant, Forrester, Haverhill, Mass., assignor to Bryant Nail Company, Portland, Me. Nail-making machine .....	378,656	Feb. 28	1956	{ 519 520 }	42	902
Bryant, Fred L., Chicago, Ill. Woven-wire mat .....	375,866	Jan. 3	183	51	42	40
Bryant Nail Company. (See Bryant, Forrester, assignor.)						
Bryant, Orrin, Buffalo, N. Y. Machine for turning whips .....	389,362	Sept. 11	852	{ 218 219 220 221 }	44	1243
Bryant & Stratton Mechanical Appliance Company. (See Moore, Homer J., assignor.)						
Bryant, Waldo C., Waterbury, Conn. Electric switch or cut-out .....	391,943	Oct. 30	2480	671	45	518
Bryant, Washington, Franklin, Ark. Paddle-wheel .....	379,362	Mar. 13	719	{ 195 196 }	42	1108
Bryant, William A., Notasulga, Ala. Fence .....	391,353	Oct. 16	1644	435	45	330
Bryant, William A., assignor of two-thirds to M. M. Nicholson and J. L. Reeves, Collinsville, Ala. Horse-detacher .....	392,946	Nov. 13	1127	293	45	820
Bryant, Zenas F., Malden, assignor of one-half to W. H. Park, Boston, Mass. Curtain-fixture .....	382,797	May 15	1380	362	43	793
Bryant, Zenas F., Malden, assignor of one-half to A. H. Cushing, Brookline, Mass. Furnace-grate .....	389,833	Sept. 18	1560	413	44	1385
Bryar, Samuel B., Pittsburg, Pa. Feed-pipe for boilers .....	382,753	May 15	1315	{ 345 346 }	43	781
Bryden, Elisha P., Rockford, Ill. Closure for chimneys .....	386,106	July 17	1142	304	44	237
Buchanan, Asher R., Detroit, Mich. Fence .....	389,286	Sept. 11	754	191	44	1224

## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Buchanan, Charles H., Philadelphia, Pa. Last	384,015	June 5	255	73	43	1171
Buchanan, James, Indianapolis, Ind. Band-cutter	382,686	May 15	1232	321	43	764
Buchanan, Jesse J., Bridgeport, Ill. Wire fence	384,016	June 5	256	73	43	1171
Buchanan, Samuel A., Bellefontaine, Ohio. Connection for end posts and bottom chords of bridges	387,139	July 31	2691	705	44	551
Buchanan, Samuel A., Bellefontaine, Ohio. Bridge	389,951	Sept. 25	1752	464	44	1429
Buchanan, William, New York, N. Y. Auxiliary car-heating system	394,456	Dec. 11	1065	277 278	45	1283
Buchbinder, Adolph W., Jr., Detroit, Mich. Opera-glass holder	389,194	Sept. 11	603	154	44	1193
Buchholz, Gustav, Berlin, Germany. Anti-friction bearing	393,141	Nov. 20	1402	367	45	881
Buchhorn, Frederick, Chicago, Ill. Water-filter	375,798	Jan. 3	102	30	42	24
Buchman, William M., Columbia, Tenn. Curtain-fastener	388,018	Aug. 21	1248	339	44	829
Buck, Alfred, and A. Burekard, Baltimore, Md. Propelling apparatus for boats	388,395	Aug. 28	1864	498	44	950
Buck, C. M. (See Pratt, Charles H., assignor.)						
Buck, Edwin C., Philadelphia, Pa. Cable-railway gripping apparatus	391,878	Oct. 30	2385	647	45	499
Buck, Frank R., New York, N. Y. Packing granular material	387,140	July 31	2692	706	44	551
Buck, George W., assignor of one-half to H. E. Champion, Detroit, Mich. Boring and tapping tool	391,777	Oct. 30	2322	602	45	466
Buck, James A., Crescent, N. Y. Brick-mold-sanding machine	385,790	July 10	684	179	44	142
Buckbee, John H., Jr., New York, N. Y. Snare-tightener for drums	388,527	Aug. 28	2040	549	44	985
Buckeye Engine Company. (See Thompson, Joseph W., assignor.)						
Buckingham, Charles L., New York, N. Y. Commutator	394,095	Dec. 4	526	141	45	1172
Buckingham, Charles L., New York, N. Y., and H. Lemp, Hartford, Conn. Regulator for dynamo-electric machines	387,853	Aug. 14	1942	510 255 256	44	768
Buckingham, Reuben D., assignor of one-half to E. F. Cragin, Chicago, Ill. Road-cart	377,061	Jan. 31	979	51	42	402
Buckland, Clarence E., assignor to J. N. Bidwell, East Hartford, Conn. Drinking-glass	392,145	Oct. 30	2799	760	45	580
Buckland, Harry W., Waterbury, Conn. Clasp	376,578	Jan. 17	1205	318	42	246
Buckley, Channey, Meriden, Conn. Curtain-fixture	382,509	May 8	956	242	43	701
Buckley, Edmond, Swan, Iowa. Car-coupling	394,954	Dec. 25	1907	493	45	1467
Buckley, Edward H., Philadelphia, Pa., assignor to Acme Staple and Machine Company, of New York. Staple for boots and shoes	387,854	Aug. 14	982	256	44	768
Buckley, Edwin, Durham, county of Durham, England. Loom for the manufacture of tufted pile fabrics	393,458	Nov. 27	1872	493	45	982
Buckley, John. (See Connelly, William A., assignor.)						
Buckley, John. (See Davison and Buckley.)						
Buckman, Alexander. (See Burns and Buckman.)						
Buckman, Benjamin J., assignor to Heywood Brothers & Co., Gardner, Mass. Knockdown rattan chair	383,169	May 22	1930	504 505	43	911
Buckman, Samuel Y., Philadelphia, Pa. Tool for crimping metal	391,227	Oct. 16	1473	391	45	299
Buckwalter, Joseph A., assignor to Buckwalter Stove Company, Royer's Ford, Pa. Dust-fine for stoves	383,386	May 22	2249	598	43	970
Buckwalter Stove Company. (See Buckwalter, Joseph A., assignor.)						
Buda Foundry and Manufacturing Company. (See Bullitt, Logan M., assignor.)						
Budd, Charles P., et al. (See Dubinski, Benjamin, assignor.)						
Budd, J. Talman, Buffalo, N. Y. Snapsender-buckle	390,280	Oct. 2	111	31	45	25
Budd, Joseph W., New York, N. Y. Apparatus for burning petroleum and other liquid hydrocarbons	391,018	Oct. 16	1180	313	45	242
Budd, Thomas R., Carthage, N. Y. Fire-escape	386,237	July 17	1346	355	44	277
Buddieum, Harry W., Pen-y-Pound, Abergavenny, county of Monmouth, England. Apparatus for dipping or cleansing tin orterne plates	392,101	Oct. 30	2732	742 743	45	566
Buddington, Truman B., and J. R. Bedient, Birmingham, Conn. Coffin-fastener	380,242	Mar. 27	2048	547	42	1354
Buel, Arthur, New York, N. Y. Drier	388,178	Aug. 21	1528	407	44	879
Buerk, John O., Red Bank, N. J. Car-seat	389,686	Sept. 18	1354	355	44	1342
Buffington, Leroy S., Minneapolis, Minn. Iron-building construction	383,170	May 22	1931	505 506	43	911
Buffington, Roland G., et al. (See Shepard, William P., assignor.)						
Bugbee, Almon C. (See Lamprey and Bugbee.)						
Bugbee, George C., North Attleborough, Mass., assignor of one-half to S. K. Merrill & Co., Providence, R. I. Hinged shoe-button	381,328	Apr. 17	1543	416	43	317
Bugbee, George W., Delhi, and F. Danner, Home City, assignors to Egan Company, Cincinnati, Ohio. Mortising-machine	384,559	June 12	1077	282	43	1333
Bugbee, George W., and F. Danner, assignors to Egan Company, Cincinnati, Ohio. Counter-shaft	384,560	June 12	1079	282	43	1333
Bugbee, James L., Providence, R. I. Machine for winding spools	375,921	Jan. 3	257	70, 71	42	54
Bugg, Owen T., Louisville, Ky., assignor, by mesne assignments, to United States Cotton Harvester Company, of New York. Cotton-harvester	383,099	May 22	1833	480	43	892
Bugg, Owen T., and W. L. Langley, Newark, N. J., said Bugg assignor to United States Cotton Harvester Company, of New York. Cotton-harvester	386,294	July 17	1420	375	44	291
Bughman, Jeremiah J., Justus, Ohio. Farm-gate	377,844	Feb. 14	769	196	42	656
Bührer, Jacob, Constance, Baden, Germany, assignor of one-half to F. B., H. J., and B. F. Van de Velde, Cleveland, Ohio. Brick-kiln	377,511	Feb. 7	250	61 62 63	42	542
Buick, David D., Detroit, Mich. Siphon water-closet	383,038	May 15	1728	450	43	863
Buie, Alfred J., St. Louis, Mo. Alarm for flouring-mills	377,370	Feb. 7	5	2	42	496
Bulen, George F., Brooklyn, N. Y. Watchman's electric time-recorder	386,767	July 24	2098	551 552	44	432
Bulger, Benjamin. (See Warrington and Bulger.)						
Bulkeley, Henry W., East Orange, N. J. Steam-actuated valve	377,423	Feb. 7	118	25	42	517
Bulkeley, William A., Philadelphia, Pa. Easel	376,852	Jan. 24	1653	432	42	337
Bull, William B., Quincy, Ill. Device for preventing incrustation in steam-boilers	383,795	May 22	275	756	43	1099
Bullard, Charles W., Chicago, Ill. Latch-case	386,522	July 24	1766	466	44	310
Bullard, James H., Springfield, Mass. Furnace for recovering soda	391,735	Oct. 23	2165	585	45	445
Bullard, Levi, Elizabethtown, N. Y. Stove-polish	389,636	Sept. 18	1276	41	41	1327
Bullard, Lowell J., New York, N. Y. Lamp-burner flame-extinguisher	388,019	Aug. 21	1249	339	44	830
Bullard, Lowell J., New York, N. Y. Clasp	388,020	Aug. 21	1250	340	41	830
Bullitt, Logan M., St. Paul, Minn., assignor to Buda Foundry and Manufacturing Company, Buda, Ill. Car-wheel	387,855	Aug. 14	982	256	44	768
Bullitt, Logan M., and O. C. Greene, St. Paul, Minn. Electro-magnetic signaling device for mines	380,382	Apr. 3	116	34	43	25
Bullivant, William M., 72 Mark Lane, London, England. Manufacture of torpedo-nets and means for attaching and working them	379,851	Mar. 20	1481	390 391	42	1262
Bullock, Alanson B., Canton, Mass. Rotary steam-engine	377,143	Jan. 31	2055	539 540	42	424

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Bullock Manufacturing Company, M. C. (See Douglass, Samuel W., assignor.)						
Bullock, William F. (See Hanson and Bullock.)						
Bullock, William F., and W. F. Hanson, Lynn, Mass. Elevator.....	388,627	Aug. 28	2185	587	44	1013
Bullough, John. (See Tweedale, Edmund, assignor.)						
Bullough, John, Accrington, county of Lancaster, England. Electric testing device for carding-machines.....	390,113	Sept. 25	1998	{ 532 533 }	41	1479
Bulman, Christopher, <i>et al.</i> (See Kotyra, Maxymilian, assignor.)						
Bump, Herman L., McMillan, Wis. Saw-filing machine.....	381,610	Apr. 24	1975	519	43	420
Bumpus, Delos H., Knox, Pa. Saddle for walking-beams.....	385,542	July 3	314	81	44	64
Bunce & Benedict. (See McDonald, James, assignor.)						
Bunch, Henry G., Rahway, N. J. Machine for coating fabrics.....	392,779	Nov. 13	898	229	45	773
Bunch, William, assignor of one-half to J. A. Huesgen, C. Moore, and U. Zewicki, Luys-town, Mo. Car-coupling.....	390,156	Sept. 25	2061	550	44	1493
Bundy, David W., Toronto, Ontario, Canada. Pay device.....	390,342	Oct. 2	200	53	45	42
Bundy, Nathan A. (See Hebbard, George H., assignor.)						
Bundy, Warren, assignor of two-thirds to O. Troost, Minnesota City, Minn., and G. Montague, Chicago, Ill. Saw.....	388,820	Sept. 4	17	6	44	1076
Bundy, Warren, assignor of two-thirds to O. Troost, Minnesota City, Minn., and G. Montague, Chicago, Ill. Saw.....	388,821	Sept. 4	18	6	44	1076
Bundy, Warren, assignor of two-thirds to O. Troost, Minnesota City, Minn., and G. Montague, Chicago, Ill. Saw.....	388,822	Sept. 4	19	6	44	1076
Bundy, Willard L., Auburn, N. Y. Time-recorder.....	393,205	Nov. 20	1500	{ 392 393 }	45	901
Bunker, Hollis P. (See Nickum and Bunker.)						
Bunker, William G., Portage, Wis. Harness-maker's tool.....	386,801	July 31	9167	571	44	455
Bunker, William L., assignor to Rocker Spring Company, Chicago, Ill. Chair.....	384,608	June 19	1150	304	43	1355
Bunn, Annie, Birdsborough, Pa. Chair.....	377,512	Feb. 7	254	63	42	543
Bunn, James M. (See Roland, Abraham, assignor.)						
Bunnell, Morton G. (See Bennett and Bunnell.)						
Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Grading and ditching machine.....	394,908	Dec. 18	1834	{ 475 476 }	45	1444
Bunting, Stewart, Dublin, county of Dublin, Ireland. Bottling apparatus.....	385,840	July 10	759	199	44	154
Buntrock, Louis, Allegheny City, Pa. Slum-pillow.....	378,552	Mar. 6	128	37	42	991
Burbank, Abner J., Harvard, Ill. Wire-stretcher.....	394,674	Dec. 18	1429	373	45	1364
Burbank, Henry A. (See Griffith and Burbank.)						
Burbank, Henry A., Westfield, Mass. Rotary hand-stamp.....	391,228	Oct. 16	1474	392	45	299
Burcak, Franklin P., Hazleton, Pa. Weather-strip.....	378,064	Feb. 14	1677	283	42	717
Burecy, Charles J. T., Syracuse, N. Y. Preventive of incrustation of steam-boilers.....	376,579	Jan. 17	1206	319	42	247
Burch, Charles A., Crestline, Ohio. Plow.....	392,780	Nov. 13	899	{ 229 230 }	45	774
Burckard, Augustus. (See Buck and Burckard.)						
Burckard, Augustus, assignor of one-third to E. D. Miller, Baltimore, Md. Carpet-cleaning machine.....	381,110	Apr. 17	1246	335	43	259
Burckas, Hugo, Leipzig, Saxony, Germany. Mechanical musical instrument.....	387,141	July 31	2654	706	44	551
Burckhardt, August. (See Weiss, Franz J., assignor.)						
Burden, Frederick C. (See Burden, William H. and F. C.)						
Burden, Howard H., Troy, N. Y. Car-coupling.....	388,396	Aug. 28	1865	498	44	950
Burden, James A., Troy, N. Y. Horseshoe machine.....	391,778	Oct. 30	2222	{ 602 603 604 605 606 607 }	45	467
Burden, James A., Troy, N. Y. Horseshoe-machine.....	391,779	Oct. 30	2232	{ 606 607 }	45	468
Burden, William H. and F. C., Cleveland, Ohio. Car-axle lubricator.....	394,096	Dec. 4	527	141	45	1172
Burdett, John F., Lowell, Mass. Cash-carrier apparatus.....	381,052	Apr. 10	1141	305	43	229
Burdett, Oliver H., Beallsville, Ohio. Saw-gumner.....	390,563	Oct. 2	518	136	45	104
Burdick, Harlow, Maple Rapids, Mich. Auger.....	390,749	Oct. 9	770	204	45	159
Burdick, Justin H., Utica, Wis. Making nuts.....	380,243	Mar. 27	2049	{ 547 548 }	42	1384
Burdick, Justin H., Utica, Wis. Nut-making machine.....	380,244	Mar. 27	2051	548	42	1384
Burdick, Justin H., Utica, assignor to Elastic Nut Company, Milwaukee, Wis. Nut-lock.....	377,188	Jan. 31	2112	557	42	436
Burdon, George R., Providence, R. I. Toilet-fan.....	376,231	Jan. 10	719	191	42	148
Burdon, Levi L., Providence, R. I. Straightening tubes.....	381,526	Apr. 24	1855	491	43	396
Burdon, Levi L., Providence, R. I. Making compound ingots.....	381,527	Apr. 24	1857	491	43	396
Burdon, Levi L., assignor to Burdon Seamless Filled Wire Company, Providence, R. I. Ingot for making seamless plated wire.....	391,736	Oct. 23	2168	585	45	445
Burdon Seamless Filled Wire Company. (See Burdon, Levi L., assignor.)						
Burdsall, Ellwood. (See Preston, Henry M., assignor.)						
Burdsall, Stephen, assignor to J. V. Beery and D. Davis, Fremont, Ohio. Running-gear for vehicles.....	382,636	May 8	1151	297	43	739
Burdsall, Stephen, and C. Thompson, assignors to Herbrand Co., Fremont, Ohio. Running-gear.....	376,795	Jan. 24	1564	410	42	322
Burdwin, John W., Ravenswood, Ill. Hydraulic valve.....	393,354	Nov. 27	1720	455	45	953
Burfeind, Hermann, Frohna, Mo. Clover-seed harvester.....	383,796	May 29	2876	{ 756 757 }	43	1100
Burfeind, Hermann, Frohna, Mo. Clover-huller.....	393,613	Nov. 27	2120	{ 554 555 }	45	1032
Burg, Lewis, Farmington, Iowa. Road-cart.....	376,470	Jan. 17	1054	276	42	217
Burg, Lewis, Farmington, Iowa. Shaft-tig.....	391,835	Oct. 30	2326	630	45	486
Burg, Lewis, Farmington, Iowa. Road-cart.....	391,836	Oct. 30	2328	631	45	486
Burge, Eugene W., <i>et al.</i> (See Spennenberg, George J., assignor.)						
Burger, F. Alonzo. (See Robinson, Clark, assignor.)						
Burger, Theodore W. (See Lee, Henry A., assignor.)						
Burgess, Charles M. (See Cooley and Burgess.)						
Burgess, Charles W., and W. F. Flecharty, assignors to Bostwick & Burgess Manufacturing Company, Norwalk, Ohio. Tail for kites.....	391,507	Oct. 23	1858	498	45	382
Burgess, Felix, Darlington, Wis. Wagon-body.....	388,528	Aug. 28	2041	549	44	986
Burgess, Hugh. (See Rennyson and Burgess.)						
Burgess, Richard O., Providence, R. I. Bridle-bit.....	377,845	Feb. 14	770	197	42	656
Burgess, Samuel, Vincennes, Ind., assignor of one-half to T. Williams, Olivet, Mich. Car-coupler.....	394,755	Dec. 18	1558	407	45	1392
Burgess, Samuel F., West Morris, Conn. Clothes-frame.....	376,580	Jan. 17	1207	319	42	247
Burgett, Isaiah C., Wheaton, Ill. Holdback for vehicles.....	389,049	Sept. 4	351	93	44	1139

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Burk, Charles D., Philadelphia, Pa. Shaft coupling	391,508	Oct. 23	1859	498	45	382
Burkart, Jasper W. (See Eddlemau, Thomas J., assignor.)						
Burkart-Osmer Pad Manufacturing Company. (See Osmer, William H., assignor.)						
Burke, Benjamin F., assignor of one-half to F. P. Moore, Altoona, Kans. Soap	390,617	Oct. 9	626		45	133
Burke, J. A. (See Ritchel, Charles F., assignor.)						
Burke, Julius C., and C. Krueger, Wausau, Wis. Stump extractor and log-mover	385,340	July 3	5	2	41	3
Burkert, John L., et al. (See Kiding, William, assignor.)						
Burkhardt, Thomas, Brooklyn, N. Y. Trap for exhaust-steam pipes	393,614	Nov. 27	2122	555	45	1033
Burkhardt, George, et al. (See Marks, Louis, assignor.)						
Burkhardt, Howard F., Philadelphia, Pa. Combined saw and planer	375,730	Jan. 3	14	4	42	6
Burkhardt, John, New York, N. Y. Wire screen, &c.	378,416	Feb. 21	1607	422	42	825
Burkhardt, John, New York, N. Y. Mechanism for forming ornamental spheroidal and analogous bodies	378,417	Feb. 21	1608	422	42	825
Burkhardt, John, assignor of one-half to W. H. Jackson & Co., New York, N. Y. Forming hollow spheroidal bodies from sheet-metal tubes	378,412	Feb. 21	1603	421	42	824
Burkhardt, John, assignor of one-half to W. H. Jackson & Co., New York, N. Y. Die for forming hollow ornamental metallic bodies	378,413	Feb. 21	1605	421	42	821
Burkhardt, John, assignor of one-half to W. H. Jackson & Co., New York, N. Y. Forming ornamental studs or pillars	378,414	Feb. 21	1605	421	42	824
Burkhardt, John, assignor of one-half to W. H. Jackson & Co., New York, N. Y. Construction of screens, grates, and panels	378,415	Feb. 21	1606	422	42	825
Burkholder, Isaac, Farmersville, Pa. Farm-gate	377,479	Feb. 7	136	46	42	511
Burkland, Emit L., Wahoo, Nebr. End-gate	385,841	July 10	760	199 200	44	155
Burleigh, Charles H., Worcester, Mass. Machine for making, repairing, and cleaning roads	379,679	Mar. 20	1199	317 318	42	1207
Burlin, Anson A., Jamestown, N. Y. Table attachment for chairs	382,687	May 15	1233	321	43	764
Burling, William S. (See Millspaugh, William, assignor.)						
Burlingame, Charles H. C. (See Beath, William H., assignor.)						
Burlingham, Frank, assignor of one-half to C. T. Phillips, McGrawville, N. Y. Sleigh	391,578	Oct. 23	1954	526	45	402
Burman, William. (See Phipps and Burman.) (Reissue.)						
Burner, Allen C., Green Bank, assignor of one-half to H. A. Holt and A. F. Mathews, Lewisburg, W. Va. Saw	392,534	Nov. 6	525	131	45	695
Burnet, William H., J. Sears, and O. G. Burnham, Chicago, Ill. Treating cotton seed	380,087	Mar. 27	1837	429	42	1341
Burnett, Charles E., Girard, Ill. Draft-equalizer	384,190	June 5	516	141	43	1221
Burnett, Hiram, East Portland, Oreg. Paint	378,826	Feb. 28	2218		42	951
Burnham, Arthur M., assignor, by mesne assignments, to Excelsior Wringer Company, Gardiner, Me. Mop-wringer	380,275	Mar. 27	2026	558	42	1392
Burnham, Arthur W., Ballston, N. Y. Car-coupling	388,756	Aug. 28	2373	639	44	1049
Burnham, Arthur W., assignor, by mesne assignments, of one-half to F. Williams, Gardiner, Me. Mop-wringer	393,355	Nov. 27	1732	456	45	953
Burnham, Charles E., White Plains, N. Y. Clock striking mechanism	384,191	June 5	517	141	43	1222
Burnham, Nathan F., York, Pa. Turbine water-wheel	382,026	May 1	219	58	43	554
Burnham, Oliver G. (See Burnet, Sears, and Burnham.)						
Burnham, Walter, Hyde Park, Ill. Molding viscous metals	383,039	May 15	1729		43	863
Burnham, Walter, Chicago, Ill. Water-raising connection for steam-generators	394,822	Dec. 18	1674	438	45	1415
Burnham, Walter, Chicago, Ill. Return-pipe for steam-circuits	394,823	Dec. 18	1677	438	45	1415
Burnham, Walter, Chicago, Ill. Water-raising connection for steam-generators	394,824	Dec. 18	1679	439	45	1416
Burnham, Walter, Chicago, Ill. Steam-jacket connection	394,825	Dec. 18	1681	439	45	1416
Burnham, Walter, Chicago, Ill. Apparatus for raising water by steam	394,826	Dec. 18	1683	439	45	1417
Burnham, Walter, Chicago, Ill. Device for feeding water to steam-generators	394,827	Dec. 18	1686	440	45	1417
Burnham, Walter, Chicago, Ill. Steam-boiler-feeding device	394,828	Dec. 18	1689	440	45	1418
Burnham, Walter, Chicago, Ill. Water-returning system for generators	394,829	Dec. 18	1691	440	45	1418
Burnham, Walter, Chicago, Ill. Water-returning appliance for steam-generators	394,830	Dec. 18	1693	441	45	1418
Burnham, William H., and J. H. Miller, assignors to United States Wind Engine and Pump Company, Batavia, Ill. Compensating pump-rod	381,211	Apr. 17	1376	368	43	284
Burnham, William H., and J. H. Miller, assignors to United States Wind Engine and Pump Company, Batavia, Ill. Pump	381,212	Apr. 17	1377	368	43	284
Burnham, William H., and J. H. Miller, assignors to United States Wind Engine and Pump Company, Batavia, Ill. Hay-carrier-track hanger	387,142	July 31	2695	706	44	551
Burnham, William H., and J. H. Miller, assignors to United States Wind Engine and Pump Company, Batavia, Ill. Windmill	391,401	Oct. 23	1715	456 457	45	352
Burns, Charles A. (See Swafford and Burns.)						
Burns, James, Brooklyn, and A. Buckman, Schodack Depot, assignors of one-half to J. R. Downer and F. P. Harder, Castleton, N. Y. Cigarette machine	394,554	Dec. 18	1220	319	45	1326
Burns, John, Rochester, N. Y., assignor of one-half to R. W. Fredericks, Lock Haven, Pa. Furnace for baking electric-light carbons	388,757	Aug. 28	2374	639	44	1049
Burns, Peter C., St. Louis, Mo. Galvanic battery	393,811	Dec. 4	115	32	45	1094
Burns, Robert H. (See Vogt and Burns.)						
Burns, Robert H., Brooklyn, N. Y. Limekiln	394,151	Dec. 11	610	163	45	1197
Burns, Silver & Co. (See Crofut, David F., assignor.)						
Burns, William. (See Rogers, Timothy, assignor.)						
Burns, William M., Miltonvale, Kans. Heating-stum	385,499	July 3	251	64	44	51
Burr, John W., Taunton, Mass. Oven	390,200	Oct. 2	6	2	45	4
Burrage, William R. (See Johnson, Charles, assignor.)						
Burrell & Company, D. H. (See Sedgwick, Alonzo, assignor.)						
Burrell & Company, D. H. (See Sedgwick, Womersley, and Brown, assignors.)						
Burrell, Francis C., La Salle, Ill. Rotary brick-machine	393,206	Nov. 20	1503	393	45	902
Burrell, John H., Jr., Philadelphia, Pa. Lantern	387,944	Aug. 14	1135	304 305	44	798
Burridge, Thomas H., St. Louis, Mo. Car-brake	383,387	May 22	2249	598	43	970
Burridge, Thomas H., St. Louis, Mo. Street-car motor	393,207	Nov. 20	1505	394	45	902
Burritt, Albert M., Waterbury, Conn. Machine for tapping steam, gas, or water fittings	379,761	Mar. 20	1318	351	42	1232
Burritt, Albert M., Waterbury, Conn. Machine for tapping steam, gas, or water fittings	381,053	Apr. 10	1141	305	43	230
Burritt, Albert M., Waterbury, Conn. Tap with detachable cutters	385,543	July 3	315	81	44	64
Burroughs, Arthur W. (See Heaton, Lorenzo D., assignor.)						
Burroughs, John H., Brooklyn, N. Y. Tap for oil-cans	389,871	Sept. 25	1640	431	44	1406
Burroughs, Silas M., et al. (See Golding, John F., assignor.)						
Burroughs, Silas M., et al. (See Tinline and Piatkowski, assignors.)						
Burroughs, William S., assignor to American Arithmometer Company, St. Louis, Mo. Calculating-machine	388,116	Aug. 21	1404	377 378 379	44	837
Burroughs, William S., assignor to American Arithmometer Company, St. Louis, Mo. Calculating-machine	388,117	Aug. 21	1412	379 380	44	850

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Burroughs, William S., assignor to American Arithmometer Company, St. Louis, Mo. Calculating-machine	388,118	Aug. 21	1417	{ 380 381 382 382 383 384 385	{ 44	859
Burroughs, William S., assignor to American Arithmometer Company, St. Louis, Mo. Calculating-machine	388,119	Aug. 21	1428	{ 383 384 385	{ 44	831
Burrows, Albert, Toronto, Ontario, Canada. Punch	376,136	Jan. 10	587	157	42	123
Burrows, Everett L. (See Bailey, Fred E., assignor.)						
Burrows, Francis, Elizabeth, N. J. Camera-shutter	393,500	Nov. 27	1942	508	45	995
Burrows, John J., assignor of one-half to J. T. Springman, Jr., Washington, D. C. Cover for man-holes or catch-basins	386,768	July 24	2102	552	44	434
Burrows, William, Littleton, Ill. Windmill	378,429	Feb. 23	1634	430	42	836
Burson, Samuel M., Hanoverton, Ohio. Tail-piece for stringed instruments	383,276	May 22	2091	549	43	942
Burson, William W., assignor, by mesne assignments, to W. Deering, Chicago, Ill. Sheaf-carrier for self-binding harvesters	391,451	Oct. 23	1784	477	45	366
Burt, Charles A., Rochester, N. Y. Machine for capping cans	377,449	Feb. 7	154	35	42	524
Burt, Frederick J., et al. (See Needham, Arthur J., H. C., and W. C., assignors.)						
Burt, George E., Harvard, Mass. Horse-power	337,945	Aug. 14	1135	305	44	799
Burt, John. (See Shuttleworth, Tom I., assignor.)						
Burt, Ransom K., assignor of one-half to H. M. Ochiltree, Haddam, Kans. Harness-strap	379,196	Mar. 6	472	133	42	1056
Burt, Ransom K., Haddam, Kans., assignor of one-half to A. J. Gustin, Lincoln, Nebr. Neck-yoke ring	388,758	Aug. 28	2375	640	44	1049
Burton, Augustus G. (See Cooley, Arthur M., assignor.)						
Burton, Augustus G., Chicago, Ill. Safe-lock	383,040	May 15	1731	{ 450 451 451 452	{ 43	863
Burton, Augustus G., Chicago, Ill. Safe-lock	383,041	May 15	1737	{ 451 452	{ 43	864
Burton, Augustus G., Chicago, Ill., assignor of one-half to J. C. Harris, Dayton, Ohio. Safe-lock	382,071	May 1	290	77, 78	43	567
Burton, Bethel, London, England. Automatic machine-gun	390,114	Sept. 25	2000	{ 533 534	{ 44	1480
Burton, Charles S., trustee. (See Hubbard, Eber, assignor.)						
Burton, George D., et al. (See Gould, Charles E., assignor.)						
Burton, George D., New Ipswich, N. H. Stock-car	376,729	Jan. 24	1451	321	42	301
Burton, George D., New Ipswich, N. H. Pneumatic carrier	379,503	Mar. 13	936	252	42	1149
Burton, George D., Boston, Mass. Feed-trough for stock-cars	390,564	Oct. 2	519	136	45	104
Burton, George D., Boston, Mass. Stock-car	391,579	Oct. 23	1955	{ 527 528	{ 45	403
Burton, George D., Boston, Mass. Feed-trough	391,580	Oct. 23	1957	528	45	403
Burton, Robert W., New River, Va. Nut-lock	385,442	July 3	165	45	44	34
Burton, William, Lake Village, Ind. Thill-coupling	387,281	Aug. 7	116	31	44	595
Burtscher, Hugo. (See Schlatter, Schmid, and Burtscher.)						
Bury, Theodore, Cleveland, Ohio. Window-ventilator	377,798	Feb. 14	712	180	42	646
Bushby, Fred H., San Francisco, Cal. Glove	379,855	Mar. 20	1483	391	42	1262
Busch, Carl, Chicago, Ill. Electric comb	384,561	June 12	1081	282	43	1334
Buschick, Gustavus E., and F. Rauter, Chicago, Ill. Nail-machine	384,422	June 12	872	227	43	1295
Buschmann, Victor H., assignor to A. H. Brinkmann, Baltimore, Md. Bustle	385,296	June 26	2196	561	43	1570
Busell, James H., Boston, Mass. Heel-burnishing machine	376,066	Jan. 10	476	{ 128 129	{ 42	103
Busell, James H., Boston, Mass. Heel-burnishing machine	392,715	Nov. 13	792	201	45	753
Busell, James H., Boston, Mass. Heel-burnishing tool	392,716	Nov. 13	793	202	45	754
Busell, James H., Boston, Mass. Tool for burnishing boots or shoes	393,537	Nov. 27	2007	521	45	1010
Busell, James H., assignor to H. Rogers, trustee, Boston, Mass. Heel-trimmer	390,750	Oct. 9	771	205	45	159
Busell Trimmer Company. (See Maynard, James E., assignor.)						
Busenbarrick, James E., and C. F. Mitchell, Robinson, Kans. Rotary grain measure	376,367	Jan. 10	903	237	42	182
Bush, Brooks, Atlanta, Ga. Car-coupling	394,969	Dec. 18	1840	476	45	1445
Bush, I. Addison, Philadelphia, Pa. Mucilage-holder	388,823	Sept. 4	20	7	44	1076
Bush, M. M. (See Herrington, Ephraim, assignor.)						
Bush, Robert T. (See Vandercook and Bush.)						
Bush, William C. (See Blair and Bush.)						
Bush, Zachariah T. (See Gilbert and Bush.)						
Bush, Zachariah T., Stanton, Mich. Road-cart	378,354	Feb. 21	1521	398	42	808
Bushfield, Samuel B., Denver, Colo. Therapeutic electric belt	376,730	Jan. 24	1452	382	42	301
Bushnell, Cornelius S., New Haven, Conn. Roofing compound	389,050	Sept. 4	352		44	1139
Bushnell, Herbert L., et al. (See Denio, William L., assignor.)						
Bushnell, John S. (See Thompson, Richard, assignor.)						
Bushnell, Oscar P., Worcester, Mass. Molding-press for oil-cakes	385,094	June 26	1885	{ 481 482	{ 43	1508
Bushnell, William B. (See McClelland, John A., assignor.)						
Busiel, Frank E., Laconia, N. H. Knitting stockings	392,535	Nov. 6	525	{ 131 132	{ 45	695
Bussard, Jonas. (See Null and Bussard.)						
Busse, Heinrich, Linden, vor Hanover, Prussia, Germany. Making artificial or elastic bitumen for paving	376,289	Jan. 10	797		42	163
Busse, Heinrich, Linden, vor Hanover, Prussia, Germany. Composition of matter for paving	376,290	Jan. 10	797		42	163
Bussey, Anderson, Columbia County, Ark. Corn-planter	378,189	Feb. 21	1266	335	42	760
Bussler, Otto, Nuremberg, Bavaria, Germany. Lead-pencil holder	381,611	Apr. 24	1977	526	43	420
Bussler, Otto, Nuremberg, Bavaria, Germany. Pencil-holder	381,612	Apr. 24	1979	520	43	420
Bussler, Otto, assignor to G. Schwanhäuser, Nuremberg, Bavaria, Germany. Pencil-holder	392,536	Nov. 6	526	132	45	695
Butcher, Edward G., Camanche, Iowa. Equestrian gymnasium	377,223	Jan. 31	2182	576	42	449
Butcher, William, and C. G. Bailey, York, Pa. Coal-sifter	379,267	Mar. 13	581	161	42	1081
Butenschon, John B., Portland, Oreg. Counter-scale	381,673	Apr. 24	2062	539	43	437
Butler, Argalis F., et al. (See Westgate, Joseph D., assignor.)						
Butler, Benjamin F., Davenport, Iowa. Wheel-plow	391,115	Oct. 16	1317	351	45	268
Butler, Edward F., assignor of one-half to J. G. Kestol, Whitewater, Wis. Hame-fastener	378,128	Feb. 21	1173	306	42	744
Butler, Edward S., New York, N. Y. Cartridge-feed indicator for fire-arms	382,455	May 8	873	223	43	684
Butler, Elisha Y., et al. (See Westgate, Joseph D., assignor.)						
Butler, Herbert W., Brixton, county of Surrey, England, assignor, by mesne assignments, to Electrical Accumulator Company, of New York. Separator for electric batteries	391,229	Oct. 16	1475	392	45	299



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Butler, James P., Wayne, Nebr. Pig-urserer	394,955	Dec. 25	1908	493	45	1467
Butler, Lewis C. (See McElroy, James F., assignor.)						
Butler, Oliver R., Cooperstown, N. Y. Bolt, bar, &c.	391,879	Oct. 30	2386	647	45	499
Butler, Paul, Lowell, Mass. Machine for trimming cartridge-shells	378,953	Mar. 6	128	37, 38	42	992
Butler, Samuel A., et al. (See Dean, Henry W., assignor.)						
Butler, Stephen T., Socorro, N. Mex. Ter. Stirrup	380,276	Mar. 27	2087	559	42	1392
Butler, Stephen T., Socorro, N. Mex. Ter. Riding-saddle	387,143	July 31	2696	706	44	552
Butler, Theodore, assignor to J. L. Mott Iron Works, New York, N. Y. Flushing-pipe for water-closets	376,137	Jan. 10	587	157	42	123
Butler, Thomas H., Harrisburg, Pa. Absorber for ice-machines	377,189	Jan. 31	2112	558	42	436
Butler, William H. (See Gill, Butler, and Smith.)						
Butler, William P. (See Schauer, Edward J., assignor.)						
Butler, William P. (See Voltz and Butler.)						
Butler, William P., Chicago, Ill. Lamp-shade holder	389,439	Sept. 11	977	261	44	1266
Butler, William P., Chicago, Ill. Reservoir-lamp	389,440	Sept. 11	977	261	44	1266
Butman, Fred P., Holbrook, assignor to himself and E. H. Fennessy, Newton, Mass. Stocking-supporter	377,480	Feb. 7	197	47	42	533
Butterfield, Finley R. (See Thurston and Butterfield.)						
Butterfield, William. (See Miller and Butterfield.)						
Butterworth, Benjamin, trustee. (See Heckert, William, assignor.)						
Butterworth, John, Jr. (See Butterworth, William H. and J., Jr.)						
Butterworth, R. E., et al. (See Grzybowski, Julian T., assignor.)						
Butterworth, Richard E., et al. (See Grzybowski, Julian T., assignor.)						
Butterworth, William H. and J., Jr., Trenton, N. J. Thrashing-machine	379,762	Mar. 20	1319	{ 351 352 }	42	1232
Buttler Art Glass Company. (See Buttler, William, assignor.)						
Buttler, William, Pittsburg, Pa., assignor to Buttler Art Glass Company, Fostoria, Ohio. Glass tile	394,910	Dec. 18	1841	477	45	1445
Button, Charles R. (See Button, Theodore E., assignor.)						
Button, J. Warren, Schaghticoke, N. Y. Button-worker	390,565	Oct. 2	520	136	45	105
Button, Theodore E., assignor of one-half to C. R. Button, Waterford, N. Y. Steam-boiler	387,393	Aug. 7	291	74	44	628
Buttrey, Albert S., Quincy, Ill. Folding bed	392,585	Nov. 13	605	152	45	717
Butts, Henry B., assignor to L. Butts, St. Louis, Mo. Thill-holder	390,566	Oct. 2	522	137	45	105
Butts, J. Wesley, Milton, Mich. Two-wheeled vehicle	386,107	July 17	1143	304	44	238
Butts, Lucinda. (See Butts, Henry B., assignor.)						
Butz, Albert M., assignor to Butz Thermo-Electric Regulator Company, Minneapolis, Minn. Automatic temperature-controller	390,281	Oct. 2	113	32, 33	45	26
Butz, Edward M., Allegheny, Pa. Mold for casting beam-blanks	387,764	Aug. 14	855	221	44	743
Butz Thermo-Electric Regulator Company. (See Butz, Albert M., assignor.)						
Butz, Walter D., Norristown, Pa. Bottle-cleaner	392,102	Oct. 30	2734	743	45	567
Buxton, John E., Owatonna, Minn. Grain-binder	377,062	Jan. 31	1944	511	42	402
Buxton, Levi W. (See Shaw and Buxton.)						
Buzzell, Frank P., Malden, Mass. Tool for inking the sole-edges of boots or shoes	377,846	Feb. 14	771	197	42	656
Buzzell, William R., assignor to G. T. Drabble, J. C. Perry, Shelburne, and E. Ritchie, Buckland, Mass. Combination pocket-tool	386,055	July 10	1056	282	44	215
Byar, John. (See Tatman and Byar.)						
Bye, Martin, assignor to S. Forehand, Worcester, Mass. Fire-arm	375,799	Jan. 3	103	30	42	24
Bye, Martin, assignor to S. Forehand, Worcester, Mass. Breech-loading fire-arm	378,355	Feb. 21	1522	398	42	898
Byers, Jesse S., assignor of one-half to A. P. Charles, Knoxville, Tenn. Rotary steam-engine	394,212	Dec. 11	753	199	45	1221
Byers, John G. (See Geatty, Hamilton C., assignor.)						
Byers, Joseph J., Brooklyn, N. Y. Shoulder-form for garments	389,637	Sept. 18	1277	336	44	1327
Byers, Samuel S., Darwin, Kans. Bolster-spring	379,097	Mar. 6	319	99	42	1031
Byers, William H. (See Stocker, William F., assignor.)						
Byfield, John, Chelmsford, Mass. Forcing snow-plows through snow-drifts, &c.	392,905	Nov. 13	1070	277	45	809
Bylesby, Henry M. (See Schmid and Bylesby.)						
Bylesby, Henry M. (See Shallenberger and Bylesby.)						
Bylesby, Henry M., assignor to Westinghouse Electric Company, Pittsburg, Pa. Armature for dynamos and motors	383,617	May 29	2599	687	43	1045
Bylesby, Henry M., assignor to Westinghouse Electric Company, Pittsburg, Pa. Synchronizing device for alternate-current dynamos	383,618	May 29	2599	687	43	1045
Bylesby, Henry M., assignor to Westinghouse Electric Company, Pittsburg, Pa. Armature for dynamos and motors	383,619	May 29	2600	687	43	1046
Bylesby, Henry M., assignor to Westinghouse Electric Company, Pittsburg, Pa. Combined alternate-current and storage system of electrical distribution	383,620	May 29	2601	688	43	1046
Bylesby, Henry M., assignor to Westinghouse Electric Company, Pittsburg, Pa. Alternate-current and storage system of electrical distribution	383,621	May 29	2603	{ 688 689 }	43	1046
Bylesby, Henry M., assignor to Westinghouse Electric Company, Pittsburg, Pa. Alternate-current and storage system of electrical distribution	383,622	May 29	2605	689	43	1047
Bylesby, Henry M., assignor to Westinghouse Electric Company, Pittsburg, Pa. Combined alternate-current and storage system of electrical distribution	383,623	May 29	2606	689	43	1047
Bylesby, Henry M., Pittsburg, and O. B. Shallenberger, Rochester, assignors to Westinghouse Electric Company, Pittsburg, Pa. Alternate-current system of electrical distribution	381,054	Apr. 10	1143	{ 305 306 }	43	230
Bylesby, Henry M., and P. Lange, assignors to Westinghouse Electric Company, Pittsburg, Pa. Incandescent lamp	383,616	May 29	2598	687	43	1045
Byrkit, Archibald R., Fairfield, Iowa. Book-rest	389,952	Sept. 25	1754	{ 464 465 }	44	1430
Byrne, George W., et al. (See Grelle, Henry W., assignor.)						
Byrne, James, Baltimore, Md. Trip-sling	388,621	Aug. 21	1251	340	41	830
Byrne, James, Baltimore, Md. Clutch for hoisting-chains	388,022	Aug. 21	1253	340	44	840
Byrne, John, assignor to himself and C. R. Treat, Sharon, Wis. Wrench	379,504	Mar. 13	938	252	42	1150
Byrne, Peter, et al. (See Greene, Patrick R., assignor.)						
Byrne, Samuel, Brown's Valley, Cal. Car-coupling	385,500	July 3	252	64	44	51
Byrnes, Benajah S., Memphis, Tenn. Dental plugger	376,581	Jan. 17	1207	319	42	247
Byrnes, John F., Norwich, Conn. Trick-carriage	393,689	Nov. 27	2232	{ 585 586 }	45	1055
Cable, John, Cable, Minn. Excavator and self-loading conveyer	376,708	Jan. 17	1417	372	42	285
Cable, John, Cable, Minn. Excavator and conveyer	390,201	Oct. 2	6	2, 3	45	4
Cabot, Godfrey L. (See Cabot, Samuel, Jr., assignor.)						
Cabot, Samuel, Jr., Boston, Mass., assignor to G. L. Cabot, Worthington, Pa. Apparatus for the manufacture of lamp-black	388,475	Aug. 28	1973	{ 529 530 }	44	973
Cabry, Joseph, and W. H. Kinch, Darlington, county of Durham, England. Permanent way for railways, &c.	392,849	Nov. 13	998	256	45	794

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Cadbury, Joel, and J. G. Rollason, Birmingham, England. Alarm-lock	394,831	Dec. 18	1696	441	45	1419
Cadd, Henry A., Dell Rapids, Dak. Ter. Hand-stamp	386,687	July 24	1988	{ 525 526 }	44	413
Caddé, Ernest Paris, France. Grate for stoves or other heating apparatus	387,489	Aug. 7	427	111	44	656
Cadmus, Frederick, Philadelphia, Pa. Garment-stretcher	378,764	Feb. 28	2167	556	42	921
Cadwallader, Bassett, assignor to Inter Ocean Electric Company, Chicago, Ill. Electro-mechanical movement	394,332	Dec. 11	891	235	45	1252
Cadwgan, Thomas C., assignor to Duplex Manufacturing Company, Springfield, Ohio. Feed-mill	376,232	Jan. 10	720	192	42	148
Cadwgan, Thomas C., assignor to Springfield Engine and Thresher Company, Springfield, Ohio. Feed-mill	380,180	Mar. 27	1960	523	42	1366
Cady, Benjamin J., Washington, D. C. Milk-receiver	376,291	Jan. 10	798	211	42	163
Cady, George W., Chicago, Ill. Veterinary drenching-tube	382,688	May 15	1234	321	43	765
Cady, Henry G., Pine Bluff, Ark. Tire shrinker and expander	384,822	June 19	1472	385	43	1417
Cady, Henry G., Pine Bluff, Ark. Cultivator and harrow	387,856	Aug. 14	984	256	44	769
Cady, Henry G., Pine Bluff, Ark. Stalk and clod cutter	393,292	Nov. 20	1629	428	45	926
Cady, Orrin, et al. (See Woolverton, John E., assignor.)						
Caesar, Peter J., Rothsay, Minn. Device for sharpening razors	382,027	May 1	220	58	43	554
Caffyn, Stephen M., Middle Brighton, near Melbourne, Victoria. Liquid extract of meat	384,825	June 19	1473		43	1418
Cage, Gustavus A. W., Jr., Los Angeles, Cal. Dust-pan	389,921	Sept. 25	1719	454	44	1423
Cahill, Benjamin F., Atlanta, Ga. Adjustable jamb	381,329	Apr. 17	1545	417	43	317
Cahill, Richard, Brooklyn, N. Y. Brush	391,687	Oct. 23	2696	568	45	431
Cahill, Thomas H. (See Miller, James M., assignor.)						
Cahoone, Edwin R., Newark, N. J. Checkrein-loop	384,017	June 5	257	74	43	1171
Cahoone, Edwin R., Newark, N. J. Back-band loop	384,423	June 12	873	227	43	1295
Cahoone, Edwin R., Newark, N. J. Bridle-bit	390,567	Oct. 2	523	137	45	105
Cain, James, Spencer, Iowa. Buckle	385,591	July 3	386	100	44	77
Cain, John S. (See Wheeler, William P., assignor.)						
Cairns, Charles L. (See Cairns, William and C. L.)						
Cairns, William and C. L., Jersey City, N. J. Confectioner's kettle	377,141	Jan. 31	2057	540	42	424
Calam, William, assignor of one-half to Coulter & McKenzie Machine Company, Bridgeport, Conn. Oyster-dredge						
Calder, George, Vicksburg, Miss. Bale-ejecting attachment for presses	394,333	Dec. 11	895	235	45	1253
Caldera, Andrea L., Turin, Italy. Key-board musical instrument	380,088	Mar. 27	1839	490	42	1341
Caldwell, Benjamin F., Wheeling, W. Va. Cap and anchor for metallic roofing	382,028	May 1	221	58, 59	43	554
Caldwell, Benjamin F., and W. F. Peterson, Wheeling, W. Va. Machine for painting metallic roofing	381,756	Apr. 24	2179	570	43	459
Caldwell, Benjamin F., and W. F. Peterson, Wheeling, W. Va. Machine for painting metallic roofing	381,757	Apr. 24	2180	570	43	459
Caldwell, Charles C. (See Dustin, James W., assignor.)						
Caldwell, Edward P., Minneapolis, Minn. Snow-plow	374,244	Dec. 11	756	200	45	1224
Caldwell, Edwin. (See Searles and Caldwell.)						
Caldwell, Frank G., Wheeling, W. Va. Construction of railway-cars	391,296	Oct. 16	1570	417	45	316
Caldwell, Homer M., assignor to Harrington & Richardson Arms Company, Worcester, Mass. Revolving fire-arm	389,701	May 29	2715	717	43	1071
Caldwell, Homer M., assignor to Harrington & Richardson Arms Company, Worcester, Mass. Revolver	395,119	Dec. 25	2163	558	45	1517
Caldwell, John M., Allegheny City, Pa. Automatic gate for elevators	389,363	Sept. 11	859	221	44	1244
Caldwell, Joseph K. (See Hoskin, Caldwell, and Hughes.)						
Caldwell, Richard, Tipton, Mich. Wagon-rack	380,181	Mar. 27	1961	{ 523 524 }	42	1366
Caldwell, William A., Wichita, Kans. Swing	389,834	Sept. 18	1561	413	44	1385
Caldwell, William H. (See Rosentrefer, Frank L., assignor.)						
Caldwell, William L., Canton, Ohio. Hat and coat rack	377,737	Feb. 14	583	150	42	620
Caldwell, William M. (See Parker, Homer N., assignor.)						
Calef, Joseph W., North Easton, assignor of one-half to W. T. Andrews, Boston, Mass. Lawn-rake	388,179	Aug. 21	1530	408	44	879
Calkins, A. C., trustee. (See Thacher and Morris, assignors.)						
Calkins, Henry B., Hyndsville, N. Y. Fire-escape	383,211	May 22	1990	522	43	924
Calkins, James B., Pacific, Mo. Stock-car	382,456	May 8	875	223	43	685
Callam, John, et al. (See Carroll and Hill, assignors.)						
Callahan Company, Cornelius. (See Callahan, Cornelius, assignor.)						
Callahan, Cornelius, assignor to C. Callahan Company, Boston, Mass. Tool for applying couplings to hose	389,441	Sept. 11	978	262	44	1267
Callahan, Edward, et al. (See Griffin, Patrick, assignor.)						
Callahan, Henry, Dayton, Ohio. Hot-air furnace	383,100	May 22	1835	481	43	892
Callahan, James W., New Iberia, La. Clamp for hoops or bands	385,501	July 3	253	65	44	51
Callan, James, Waterbury, Conn., assignor to Holmes, Booth & Haydens, New York, N. Y. Metal tube	388,824	Sept. 4	21	7	41	1076
Callan, John P., Aurora, Ill. Two-wheeled vehicle	381,758	Apr. 24	2181	570	43	459
Callor, Annie, Albany, N. Y. Surgical splint	377,145	Jan. 31	2059	{ 540 541 }	42	425
Calmeyn, Joseph. (See Welden, Richard H., assignor.)						
Calumet Fastener Company. (See Davenport, Benjamin R., assignor.)						
Cambria Iron Company. (See Coffin, John, assignor.)						
Cambria Iron Company. (See Fronbeiser, James J., assignor.)						
Cambria Iron Company. (See Hogan, William J., assignor.)						
Cameron, Amberg & Co. (See Powell, Samuel, assignor.)						
Cameron, Daniel A., Port Huron, Mich. Pillow-block	394,056	Dec. 4	474	126	45	1162
Cameron, Donald, Detroit, assignor of one-half to W. C. Mooney, Indian Lake, Mich. Sheep-shears	376,233	Jan. 10	722	192	42	148
Cameron, Duncan H., assignor of one-half to D. Annis, Woodville, Ontario, Canada. Incrustation-preventive	388,759	Aug. 28	2376		44	1049
Cameron, Edwin A. (See Cameron, Fred and E. A.)						
Cameron, Edwin A. and F., Tinnmouth, Vt. Machine for digging, cleaning, and assorting potatoes	379,098	Mar. 6	349	{ 99 100 }	42	1031
Cameron, Fred. (See Cameron, Edwin A. and F.)						
Cameron, Fred and E. A., Tinnmouth, Vt. Window-shelf fastening	392,257	Nov. 6	117	30	45	617
Cameron Harrow and Wagon Company. (See Cameron and Judson, assignors.)						
Cameron, Horatio, Boston, assignor of one-half to E. L. Edes, Plymouth, Mass. Wire-nail machine	390,648	Oct. 9	627	167	45	133
Cameron, Joseph, Cynthiana, and J. S. and W. S. Judson, Springfield, Ohio, assignors to Cameron Harrow and Wagon Company, Chicago, Ill. Dumping-wagon	380,277	Mar. 27	2088	{ 559 560 }	42	1392
Cameron, Robert, Bernalillo, N. Mex. Ter. Vehicle-seat lock	390,838	Oct. 9	896	237	45	182
Camp, D. W. (See Davison, Charles G., assignor.)						
Camp, Daniel A., Barre, Vt. Holdback	376,796	Jan. 24	1565	411	42	323

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Campbell, Andrew C. (See Dimond and Campbell.)						
Campbell, Angus, Powassan, assignor of one-half to G. McEachern, Toronto, Ontario, Canada. Stove-pipe coupling	376,026	Jan. 3	423	112	42	84
Campbell, Anna J., Blackburn, Pa. Fire-place	390,282	Oct. 2	116	33	45	26
Campbell Burner Company. (See Todd, Cornelius B., assignor.)						
Campbell, Charles H., Watertown, N. Y. Cushioning device for type-beds	382,182	Mar. 27	1963	524	42	1366
Campbell, Charles H., assignor to Bagley & Sewall Company, Watertown, N. Y. Bed-motion for cylinder printing-machines	379,933	Mar. 27	1610	429	42	1297
Campbell, Charles H., assignor to Bagley & Sewall Company, Watertown, N. Y. Paper-machine	393,538	Nov. 27	2008	524	45	1010
Campbell, Cydnor B., Glouster, Ohio. Churn	380,988	Apr. 10	1044	276	43	211
Campbell, David M., Danville, Ill. Hay-stacker	382,213	May 1	487	126	43	693
Campbell, Gardiner, Milwaukee, Wis. Mold for casting bells	385,443	July 3	166	45	44	34
Campbell, Gardiner, Milwaukee, Wis. Brick-machine	395,212	Dec. 25	2312	593	45	1542
Campbell, George P., New York, N. Y. Sweeper for railways	391,509	Oct. 23	1860	498	45	312
Campbell, George P., Cincinnati, Ohio, assignor to Friction Car Brake Company, East St. Louis, Ill. Car-brake	391,837	Oct. 30	2330	631	45	487
Campbell, George W. (See Campbell, Jeremiah W. and G. W.)						
Campbell, Guy W., assignor of one-half to San José Agricultural Works, San José, Cal. Orchard and vineyard cultivator	387,765	Aug. 14	857	221	44	743
Campbell, Hardy W., Columbia, Dak. Ter. Bridle-bit	387,048	July 31	2540	668	44	526
Campbell, Harry C., Pittsburg, Pa. Gas-main	392,406	Nov. 6	345	85	45	639
Campbell, Harry E., assignor of one-half to R. C. Blackall, Albany, N. Y. Outtrigger for row-boats	391,944	Oct. 30	2481	671	45	518
Campbell, Henry F., Concord, N. H. Electric conductor	392,103	Oct. 30	2734	713	45	567
Campbell, Homer B., assignor to Shaw Manufacturing Company, Racine, Wis. Merchandise-truck	393,293	Nov. 20	1639	428	45	927
Campbell, Homer B., and J. Shaw, assignors to Shaw Manufacturing Company, Racine, Wis. Roller-blitter	387,968	Aug. 14	1169	317	44	805
Campbell, Howard, Brooklyn, N. Y. Atomizer	377,371	Feb. 7	6	2	42	496
Campbell, Hugh J. (See Bruce and Campbell.)						
Campbell, James W., et al. (See Marsden, Mark W., assignor.)						
Campbell, Jeremiah W., St. Johns, and G. W. Campbell, Harrod, Ohio; said Jeremiah W., assignor to said G. W. Campbell. Corn-planter	379,363	Mar. 13	721	196	42	1109
Campbell, John D., New York, N. Y. Car-beater	383,513	May 29	2450	649	43	1014
Campbell, John S., Cincinnati, Ohio. Phonographic notation	395,120	Dec. 25	2165	558	45	1517
Campbell, John W., Toronto, Ontario, Canada. Head-rest	382,949	May 15	1583	413	43	835
Campbell Machine Company. (See Amborn, George, Jr., assignor.)						
Campbell Machine Company. (See Nesmith, Walter F., assignor.)						
Campbell, Mark, Chicago, Ill. Hair curling and crimping device	381,983	May 1	137	32	43	540
Campbell Printing Press and Manufacturing Company. (See Boynton, Edward S., assignor.)						
Campbell Printing Press and Manufacturing Company. (See Huson, Winfield S., assignor.)						
Campbell, Orin, and W. Peet, Lawrence, Kans. Ore-concentrator	376,853	Jan. 24	1655	432	42	338
Campbell, Richard W., and J. E. Ward, Huron, Dak. Ter. Snow-plow	392,850	Nov. 13	999	256	45	795
Campbell, Robert, South Haven, assignor of one-half to M. R. Speelman, Mendon, Mich. Washing-machine	387,576	Aug. 7	586	153	44	685
Campbell, Samuel R., assignor of one-half to E. Michael, Buffalo, N. Y. Door-scurer	377,927	Feb. 14	886	228	42	679
Campbell, Solon O., Goshen, Iowa. Window-shade attachment	378,059	Feb. 14	1044	273	42	711
Campbell, Squire M., Ursa, Ill. Sulky-plow	388,120	Aug. 21	1437	385	44	862
Campbell, Thomas, and J. H. McParland, St. John, New Brunswick, Canada. Double flush-valve for water-closets	383,858	June 5	13	4	43	1123
Campbell, Wareham S., New Britain, Conn. Governor for wind-wheel shafts	382,950	May 15	1583	413	43	835
Campbell, William A., Portland, Oreg. Saw-mill set-works	375,800	Jan. 3	104	30	42	24
Campbell, William A., Portland, Oreg. Saw-mill stock-roller	375,801	Jan. 3	106	31	42	25
Campbell, William A., Portland, Oreg. Shingle-sawing machine	379,856	Mar. 20	1483	391	42	1363
Campbell, William H. (See Steele, Elbert L., assignor.)						
Campfield, Matthew E., Pittsburg, assignor to Brown Specialty Company, Etna, Pa. Wrench	379,445	Mar. 13	842	227	42	1133
Campfield, Matthew E., Pittsburg, assignor to Brown Specialty Manufacturing Company, Etna, Pa. Wrench	380,859	Apr. 10	834	226	43	173
Campfield, Matthew E., Pittsburg, assignor to Brown Specialty Manufacturing Company, Etna, Pa. Machine for truing and dressing wrench-blanks	395,213	Dec. 25	2313	593	45	1542
Campiche, Louis, assignor to Mernod Frères, St. Croix, Switzerland. Music-box	382,292	May 8	619	158	43	618
Campion, William. (See Payne and Campion.)						
Canan, James, Port Colborne, Ontario, Canada. Bottle	389,953	Sept. 25	1755	465	41	1130
Candee, John H., assignor of one-half to G. W. O'Kell, New Haven, Conn. Railway-gate	391,019	Oct. 16	1182	314	45	243
Candey, William E., Rochester, Minn. Drilling-machine	380,018	Mar. 27	1739	466	42	1322
Candey, William E., Rochester, Minn. Combined anvil and vise	380,019	Mar. 27	1740	466	42	1322
Caner, Christopher C., Pataskala, Ohio. Vehicle running-gear	376,510	Jan. 17	1116	292	42	228
Canfield, Henry O., assignor to Canfield Rubber Company, Bridgeport, Conn. Bustle	375,922	Jan. 3	263	71	42	55
Canfield, Henry O., assignor to Canfield Rubber Company, Bridgeport, Conn. Bustle	375,923	Jan. 3	264	72	42	55
Canfield, Henry O., assignor to Canfield Rubber Company, Bridgeport, Conn. Bustle	375,924	Jan. 3	265	72	42	56
Canfield, Patrick E., assignor of one-half to A. W. Fond, Chicago, Ill. Automatic latch for grain-garners	381,528	Apr. 24	1858	491	43	397
Canfield Rubber Company. (See Canfield, Henry O., assignor.)						
Canfield Rubber Company. (See Smith and Williamson, assignors.)						
Canfield, William W., assignor, by mesne assignments, to National Heating Company, New York, N. Y. Radiator for steam or hot water	381,984	May 1	138	33	43	540
Cann, Harrison, Paw Paw, W. Va. Plow	391,116	Oct. 16	1318	351	45	269
Canney, Mary F., Groveland, Mass. Wind-instrument	387,338	Aug. 7	207	54	44	611
Canney, Walter S., assignor to O. S. Barr, Groveland, Mass. Wind-instrument	379,268	Mar. 13	583	161	42	1081
Canning, William P., Lowell, Mass. Machine to be driven by fluid-pressure	378,541	Feb. 28	1790	473	42	870
Cannon, Cordon S., Ligonier, Ind. Barrel-hoop	377,799	Feb. 14	712	180	42	646
Cannon, Fred. C., New Haven, Conn. Cushioned die for swaging sheet-metal articles	385,905	July 10	866	229	44	178
Cannonsburg Iron and Steel Company. (See Alexander, Urbana D., assignor.)						
Canterbury, Crawford R., Brownwood, Tex. Tongue-support	391,780	Oct. 30	2235	607	45	468
Cantero, Marion E., administratrix. (See Rowand, Francis L.)						
Cantrell, Thomas G., assignor to L. C. Marshutz, San Francisco, Cal. Ore-feeder	379,099	Mar. 6	350	100	42	1031

## INDEX OF PATENTS ISSUED FROM THE

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Cantwell, Walter A., Astoria, Ill. Roller-mill.....	390,239	Oct. 9	897	237	45	183
Capewell, George J., Cheshire, Conn. Guide for roller-dies.....	393,356	Nov. 27	1724	456	45	953
Capewell, George J., Cheshire, Conn. Nail-extractor.....	394,756	Dec. 18	1559	457	45	1392
Capitaine, Emil. (See Brünler and Capitaine.)				407		
Capra, Alessandro, and G. B. Rissone, Clerkenwell, county of Middlesex, England, said Capra assignor to said Rissone. Automatic cylinder-piano.....	384,121	June 5	412	114	43	1199
Capron, Banfield. (See Brown, William A., assignor.)						
Carbolic Smoke Ball Company. (See Spinner, Andrew J., assignor.)						
Card, Andrew C. (See Conwell, George S., assignor.)						
Card, George F., assignor to G. F. Card Manufacturing Company, Covington, Ky. Electro-dynamic machine.....	380,020	Mar. 27	1741	466	42	1322
Card, George F., assignor to G. F. Card Manufacturing Company, Covington, Ky. Electric motor.....	382,589	May 8	1086	279	43	727
Card, George F., assignor to G. F. Card Manufacturing Company, Covington, Ky. Re-touching device.....	383,436	May 29	2328	280	43	991
Card Manufacturing Company, George F. (See Card, George F., assignor.)				618		
Carder, Joseph H., Buffalo, N. Y. Cuff-holder.....	382,754	May 15	1316	346	43	781
Cardona, Joseph, Chicago, Ill. Clepsydra.....	387,014	Aug. 7	640	165	44	695
Cardon, Thomas B., and G. Lundberg, Logan, Utah Ter. Cylinder.....	377,234	Jan. 31	2184	577	42	449
Cardwell, William A., Moat Croft, Eastbourne, county of Sussex, England. Opera, field, or marine glass.....	384,122	June 5	413	115	43	1200
Cardwell, William A., The Moat Croft, Eastbourne, county of Sussex, England. Opera, field, or marine glass.....	392,851	Nov. 13	1000	257	45	795
Carette, Georges, Nuremberg, Germany. Picture-holding disk for magic lanterns.....	376,631	Jan. 17	1301	342	42	264
Carey, Philip, Cincinnati, Ohio. Covering for steam pipes and boilers.....	388,260	Aug. 21	1656	442	44	906
Carey, William, assignor to J. B. Hogue and B. Salter, Montreal, Quebec, Canada. Machine for slotting metallic gas-tips.....	391,354	Oct. 16	1645	435	45	330
Carey, William A., Malden, Mass. Holder for incandescent lamps.....	385,039	June 26	1803	464	43	1491
Carey, William A., Malden, Mass. Lubricator.....	385,040	June 26	1804	464	43	1491
Carey, William A., Malden, Mass. Switch for electrical purposes.....	385,041	June 26	1805	464	43	1491
Carey, Wilson W. (See Raymond, Bourne, and Carey.)						
Cargamel, Jules. (See Stiegler and Cargamel.)						
Carhart, David. (See Peppeler and Carhart.)						
Carhart, Edwin M., Providence, R. I. Water-wheel.....	386,802	July 31	2167	571	44	455
Carl, Lorenzo D., assignor of one-half to H. C. Humbert, Lake, Ohio. Thill-coupling.....	394,533	Dec. 11	1182	308	45	1304
Carlaw, David, Glasgow, county of Lanark, Scotland. Printing-machine.....	385,592	July 3	387	100	44	77
Carleton, Edwin G. (See Harlow, Cushing C., assignor.)				101		
Carleton, Frank D., Port Huron, Mich. Hitching-post.....	392,497	Nov. 6	471	119	45	684
Carley, John W., Thornton, Tex. Combined corn and cotton planter, cultivator, and cotton-chopper.....	378,286	Feb. 21	1425	372	42	788
Carll, George L., Brooklyn, assignor to A. V. Whiteman, Port Chester, N. Y. Jar.....	381,331	Apr. 17	1548	373	43	318
Carlough, Daniel. (See Cooke and Carlough.)				417		
Carlson, Charles A., assignor to F. F. Temple and W. A. Johnson, Chicago, Ill. Vent-plug for drawing liquors.....	393,418	Nov. 27	1815	479	45	971
Carlson, John, Smethport, Pa. Car-coupling.....	388,948	Sept. 4	213	56	44	1113
Carman, Alvin O., Pottersville, Mich. Mowing-machine.....	389,544	Sept. 18	1122	296	44	1300
Carmichael, Alexander, and S. D. Townsend, Westerly, R. I. Check-book.....	382,457	May 8	876	223	43	685
Carmichael, Henry, Malden, Mass. Treating fibrous ware.....	377,938	Feb. 14	887	42	42	680
Carmichael, John P., Milwaukee, Wis. Trunk or furniture caster.....	381,759	Apr. 24	2182	570	43	460
Carmichael, John P., Milwaukee, Wis. Dental tool.....	392,006	Oct. 30	2574	699	45	535
Carmichael, William, Baird, Tex. Yoke for connecting animals.....	381,332	Apr. 17	1549	700	43	318
Carmichael, William N. (See Trask and Carmichael.)				418		
Carmody, Michael L. (See Stapleton and Carmody.)						
Carnahan, Cyrus M., Pittsburg, Pa. Machine for cutting I-beams, channel-bars, &c.....	392,662	Nov. 13	716	181	45	737
Carnegie, Phipps & Co. (See Simpson, James H., assignor.)						
Carnell, Franklin L., Philadelphia, Pa. Pile-warp guide and tension device for looms for weaving double-pile fabrics.....	390,448	Oct. 2	351	92	45	74
Carnes, James W. (See Keller and Carnes.)						
Carnes, John, Lima, Ohio. Oil-burner.....	394,245	Dec. 11	757	200	45	1224
Carney, Harry G., et al. (See Carney, Thomas, assignor.)						
Carney, Sydney H. (See Spiegel, William G., assignor.)						
Carney, Thomas, assignor to M. Bensinger and H. G. Carney, Chicago, Ill. Cash register and indicator.....	377,728	Feb. 7	560	144	42	600
Carney, Thomas, assignor to M. Bensinger and H. G. Carney, Chicago, Ill. Cash register and indicator.....	388,825	Sept. 4	22	145	44	1076
Carney, Thomas, assignor to himself and M. Bensinger, Chicago, Ill. Coin assorter and deliverer.....	386,453	July 24	1658	437	44	350
Carolan, Eugene P., and P. H. Lee, San Antonio, Tex. Car-coupling.....	392,104	Oct. 30	2735	743	45	567
Carpenter, Amos H., West Waterford, Vt. Feathering-paddle wheel.....	381,674	Apr. 24	2063	744	43	437
Carpenter, Charles C. (See Whitmarsh, Henry C., assignor.)				539		
Carpenter, Charles C., New York, N. Y. Bussle.....	379,001	Mar. 6	207	56	42	1006
Carpenter, Charles W., et al. (See Crowell, Luther C., assignor.)						
Carpenter, Daniel A., New York, N. Y. Safety-pin.....	381,613	Apr. 24	1980	520	43	421
Carpenter, Daniel A., New York, N. Y. Glove-fastener.....	383,702	May 29	2717	717	43	1071
Carpenter, Daniel H., Orlando, Fla. Gage-wheel.....	377,800	Feb. 14	713	1-1	42	646
Carpenter, Daniel H., Orlando, Fla. Plow.....	381,529	Apr. 24	1860	492	43	397
Carpenter, Francis W., Harrison, N. Y. Toy.....	389,364	Sept. 11	860	232	44	1245
Carpenter, Frederick B., Manistique, Mich. Combined bit, countersink, and screw-driver.....	385,791	July 10	685	179	44	142
Carpenter, Henry, Davenport, Iowa. Machine for agitating liquids.....	392,987	Nov. 20	1203	313	45	841
Carpenter, Hiram H., New York, N. Y. Secondary battery.....	390,989	Apr. 10	1046	276	43	212
Carpenter, J. Fairfield, Berlin, Germany. Valve for air-brakes.....	377,989	Feb. 14	975	254	42	698
Carpenter, J. Fairfield, Berlin, Germany. Automatic electric air-brake.....	378,657	Feb. 28	1959	520	42	903
Carpenter, J. Fairfield, Berlin, Germany. Valve for electro-pneumatic railway-brakes.....	378,658	Feb. 28	1962	521	42	903
Carpenter, J. Fairfield, Berlin, Germany. Automatic cock-valve.....	386,523	July 24	1767	466	44	370
Carpenter, J. W. (See Maxon, Thomas, assignor.)				467		
Carpenter, James E., assignor to Berlin Machine Works, Berlin, Wis. Wood-polishing machine.....	392,663	Nov. 13	718	181	45	737
				182		

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Carpenter, James M., Pawtucket, R. I. Screw-cutting die.....	391,510	Oct. 23	1862	499	45	383
Carpenter & Ranshaw. (See Ranshaw, Thomas C., assignor.)						
Carpenter, Samuel, <i>et al.</i> (See Moore, Hugh, assignor.)						
Carpenter, Wilbur M., St. Louis, Mo. Type-writing machine.....	392,258	Nov. 6	118	30, 31	45	617
Carpenter, William H., Cadillac, Mich. Camera-tripod.....	378,430	Feb. 28	1636	430	42	847
Carpentier, Jules, Paris, France. Machine for perforating music-bands.....	389,872	Sept. 25	1641	435	44	1406
Carr, E. D. (See Shepard, Sylvander C., assignor.)						
Carr, George R., Lockport, N. Y. Clothes-drier.....	392,259	Nov. 6	121	31	45	618
Carr, John E. (See Carr, William J. E., assignor.)						
Carr, John F., Tiverton, R. I. Heat-regulator for incubators.....	394,057	Dec. 4	475	127	45	1162
Carr, John J., Brooklyn, N. Y. Mandrel for bending lead pipes.....	391,945	Oct. 30	2482	671	45	518
Carr, Joseph, Philadelphia, Pa. Power-fan.....	378,659	Feb. 28	1965	522	42	904
Carr, Joseph J., Wilkes-Barré, Pa. Forming cores.....	393,208	Nov. 20	1506	394	45	903
Carr, Joseph J., Wilkes-Barré, Pa. Flask for car-wheels.....	393,615	Nov. 27	2123	555	45	1033
Carr, Joseph J., assignor of one-half to D. F. Sweeney, Wilkes-Barré, Pa. Sand-sifting machine.....						
Carr, Louis F., Helena, Ark. Seed-cotton cleaner.....	378,129	Feb. 21	1174	306	42	744
Carr, Michael, Talmadge, Mich. Crusher and pulverizer.....	392,537	Nov. 6	527	132	45	695
Carr, Robert L., and P. Borden, Fall River, Mass. Battery-zinc.....	387,049	July 31	2541	668	44	526
Carr, Robert L., and P. Borden, Fall River, Mass. Making battery-zincs.....	388,628	Aug. 28	2186	588	44	1014
Carr, William E., Carbon, Ind. Apparatus to facilitate the teaching of notation and numeration.....	384,959	June 26	1666	433	43	1463
Carr, William J. E., assignor to himself and J. E. Carr, Leavenworth, Kans. Cable-grip.....	381,904	May 1	12	3	43	517
Carr, William J. E., assignor to himself and J. E. Carr, Leavenworth, Kans. Cable-grip.....	381,905	May 1	13	4	43	517
Carrico, Thomas W., San Antonio, Tex. Box for washing gravel, &c.....	378,765	Feb. 28	2108	556 } 557 }	42	930
Carrico, Thomas W., San Antonio, Tex. Barrel for outhouses.....	382,510	May 8	958	242	43	701
Carrico, Thomas W., San Antonio, Tex. Receptacle for use in outhouses and like places.....	387,857	Aug. 14	985	257	44	769
Carrico, Thomas W., San Antonio, Tex. Odorless dry outhouse and apparatus for use therewith.....	393,294	Nov. 20	1631	428 } 429 }	45	927
Carrico, Thomas W., San Antonio, Tex. Combined sand and gravel washer.....	333,295	Nov. 20	1632	430	45	927
Carroll, Bradish J., New Brighton, N. Y. Wire-holder.....	380,183	Mar. 27	1964	524	42	1367
Carroll, Craft C. (See Holmes, Joseph E., assignor.)						
Carroll, Craft C., Meadville, Pa. Crucible-furnace.....	376,632	Jan. 17	1302	342	42	264
Carroll, Craft C., Meadville, Pa. Making dental plates and bridges.....	380,021	Mar. 27	1742	467	42	1322
Carroll, D. S. (See Jenkins, John B., assignor.)						
Carroll, Daniel W., assignor of one-half to E. A. Chapoton, Detroit, Mich. Fire-hydrant.....	382,951	May 15	1584	413 } 414 }	43	835
Carroll, Henry W., assignor of one-half to E. Hatch, Sparta, Tenn. Vehicle-wheel.....	389,499	Sept. 11	1055	280	44	1280
Carroll, John W., <i>et al.</i> (See Sayre, Reuben H., assignor.)						
Carroll, Philip F., Manchester, Iowa. Cake-dropping machine.....	390,202	Oct. 2	10	3	45	5
Carroll, Samuel C., assignor of one-half to W. R. Hasting and G. W. Thacker, Adamsville, Tenn. Car-coupling.....	384,889	June 19	1571	409	43	1435
Carroll, Thomas W., <i>et al.</i> (See Savre, Reuben H., assignor.)						
Carroll, William, assignor to J. P. Barrett, Chicago, Ill. Fire-alarm-signal circuit.....	382,253	May 1	554	140	43	615
Carroll, William, and C. A. Hill, Columbus, Ohio. Double clamp.....	390,751	Oct. 9	772	205	45	160
Carroll, William, and C. A. Hill, assignors to said Carroll, A. C. Oldham, Columbus, and J. Callam, Kenton, Ohio. Stove-block.....	378,572	Feb. 28	1842	486 } 487 }	42	880
Carroll, William T., Worcester, Mass. Self-lubricating pulley.....	376,633	Jan. 17	1304	343	42	264
Carroll, William T., Worcester, assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles.....	376,234	Jan. 10	722	192	42	148
Carroll, William T., Worcester, assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles.....	391,737	Oct. 23	2169	586	45	446
Carson, Franklin R. (See Smith, Weir, Carson, and Weir.)						
Carson, Lucius A., Uniontown, Pa. Button-hole cutter.....	392,717	Nov. 13	794	202	45	754
Carter Benjamin F., Woonsocket, R. I. Picker-staff check for looms.....	384,508	June 12	1004	262	43	1319
Carter, C. E. (See Davis, John R., assignor.)						
Carter, Dinsmore & Co. (See Weiss, George H., assignor.)						
Carter, Edwin E., Knoxville, assignor to J. S. Scully, Pittsburg, Pa. Cutter for mining-machines.....	387,050	July 31	2542	668	44	526
Carter, Edwin E., Knoxville, assignor to J. S. Scully, Pittsburg, Pa. Cutter for mining-machines.....	387,144	July 31	2697	707	44	552
Carter, George A., Des Moines, Iowa. Force-pump.....	3-3,703	May 29	2718	717	43	1074
Carter, George A., Des Moines, Iowa. Windmill pump and regulator.....	392,852	Nov. 13	1002	257	45	795
Carter, George T. (See Mason and Carter.)						
Carter, George W., and W. T. Pickett, Canyonville, Oreg. Car-heater.....	388,180	Aug. 21	1531	408	44	880
Carter, Hector M., Hyde Park, Mass. Shoe attachment for bicycles.....	388,949	Sept. 4	214	57	44	1113
Carter, Henry, and L. Augustin, Pontiac, Mich. Slop-pail or commode.....	392,182	Nov. 6	10	3	45	596
Carter, James. (See Holt, Richard L., assignor.)						
Carter, James C., Decatur, Ill. Pump.....	378,766	Feb. 28	2110	557	42	930
Carter, James D., East Dulwich, county of Surrey, England, assignor to G. W. Mabie, Brooklyn, N. Y. Cigar-piercer.....	376,511	Jan. 17	1117	292	42	220
Carter, John, Emporia, Kans., assignor of one-half to T. Lewis, Kansas City, Mo. Carpet-stretcher.....	377,817	Feb. 14	772	197	42	657
Carter, John V. B., assignor of one-third to Co-Operative Foundry Company, Rochester, N. Y. Stove.....	382,511	May 8	959	242	43	702
Carter, John W., Silver City, N. Mex. Ter. Steam and air pipe coupling.....	391,117	Oct. 16	1320	352	45	269
Carter, John W., and J. Miller; said Miller assignor to W. S. Gant, Greenfield, Ind. Gas-pressure regulator.....	390,568	Oct. 2	524	137	45	105
Carter, Robert A., Pittsburg, Pa. Rolling-mill.....	390,343	Oct. 2	201	53, 54	45	43
Carter, Robert A., Pittsburg, Pa. Rolling metal.....	390,344	Oct. 2	201	54	45	43
Carter, Robert A., assignor of one-half to Phillips, Nimick & Co., Pittsburg, Pa. Pile for the manufacture of sheets of iron.....	377,729	Feb. 7	563	145	42	601
Carter, William D., West Bridgewater, and W. S. Lonther, West Bellevue, Pa. Fastening device.....	380,990	Apr. 10	1048	277	43	212
Cartlich, Jesse W. (See Gehrett and Cartlich.)						
Cartwright, Edgar, Lincoln, Cal. Vineyard or farm hoe.....	394,641	Dec. 18	1377	360	45	1354
Cartwright, Robert F., Brooklyn, N. Y. Indicator for elevators.....	391,355	Oct. 16	1646	435	45	331
Carver, James W. (See Wood and Carver.)						
Carver, James W., Pawlet, Vt. Sight for fire-arms.....	387,282	Aug. 7	117	31	44	595
Carver, James W., Lynn, Mass. Shoe-sole-buffing machine.....	391,581	Oct. 23	1958	528	45	403
Cary, Lewis A., Saco, assignor to Loom Picker Company, Biddeford, Me. Loom-picker.....	386,688	July 24	1990	526	44	413
Cary, A. Coates. (See Cary, Alanson, assignor.)						
Cary, Alanson, New York, N. Y. Hat-wire.....	381,530	Apr. 24	1862	492	43	397



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Cary, Alanson, New York, N. Y. Door or other mat.....	388,826	Sept. 4	27	9	44	1077
Cary, Alanson, assignor to A. C. Cary, New York, N. Y. Match-safe.....	379,680	Mar. 20	1204	318	43	1209
Cary, Charles H., Bristol, R. I. Reversing attachment for rotary engines or pumps.....	392,260	Nov. 6	122	31	45	618
Cary, Charles H., Warren, R. I. Rotary engine.....	392,538	Nov. 6	528	133	45	695
Cary, Charlie, Angola, Ind. Valve.....	379,446	Mar. 13	843	227	42	1133
Cary, Spencer C., Baldwin, N. Y. Metal strap for packing-boxes.....	388,629	Aug. 28	2188	588	44	1014
Caryl, Charles H., Kalamazoo, Mich. Sheath for book-covers.....	390,449	Oct. 2	351	93	45	74
Casaday, William L., South Bend, Ind. Wheel-cultivator.....	381,985	May 1	139	33	43	540
Casamajor, Louise J., executrix. (See Casamajor, Paul.)						
Casamajor, Paul, deceased, Brooklyn, N. Y.; L. J. Casamajor, executrix. Treating liquids in vacuum-pans.....	378,230	Feb. 21	1342	355	42	775
Casamajor, Paul, deceased, Brooklyn, N. Y.; L. J. Casamajor, executrix. Treating cinchona-bark.....	378,231	Feb. 21	1342	.....	42	775
Casamajor, Paul, deceased, Brooklyn, N. Y.; L. J. Casamajor, executrix. Treating saccharine solutions.....	378,232	Feb. 21	1344	.....	42	775
Casamajor, Paul, deceased, Brooklyn, N. Y.; L. J. Casamajor, executrix. Treatment of cinchona-bark.....	378,233	Feb. 21	1345	.....	42	775
Casamajor, Paul, deceased; L. J. Casamajor, Brooklyn, N. Y., executrix. Apparatus for cleansing and recovering sawdust or similar filtering substances.....	394,956	Dec. 25	1909	494	45	1467
Cascaden, Thomas, Waterloo, Iowa. Submerged heating device.....	391,297	Oct. 16	1571	417	45	317
Case, Adelbert B., Springfield, Mass. Ratchet-and-pawl device.....	383,624	May 29	2608	{ 689 } 690	{ 43 } 43	{ 1048 } 1048
Case, Adelbert B., Springfield, Mass. Traction-wheel.....	383,625	May 29	2609	690	43	1048
Case, Augustus L., Jr., Bristol, R. I. Reversing-valve for rotary engines.....	387,858	Aug. 14	986	257	44	769
Case, Augustus L., Jr., Bristol, R. I. Reversing-valve for rotary engines.....	387,859	Aug. 14	988	{ 257 } 258	{ 41 } 41	{ 769 } 769
Case, Charles A., Chattanooga, Tenn. Manufacture of asphalt pavements.....	393,616	Nov. 27	2124	555	45	1033
Case, Edwin, Ironville, Ohio. Cultivator.....	394,334	Dec. 11	897	236	45	1253
Case Engine Company, J. T. (See Case, Joel T., assignor.)						
Case, Frank E., Canton, Ohio. Surgical chair. (Reissue).....	10,906	Mar. 6	494	{ 138 } 139	{ 42 } 42	{ 1059 } 1059
Case, Frank J., Arrington, Kans. Automatic water-elevator.....	388,261	Aug. 21	1658	442	44	906
Case, Henry J., Auburn, assignor of one-half to D. M. Osborne & Company, New York, N. Y. Dropper.....	384,123	June 5	414	115	43	1200
Case, Henry J., Auburn, assignor of one-half to D. M. Osborne & Company, New York, N. Y. Adjustable wind-beard for harvesters.....	386,803	July 31	2168	{ 571 } 572	{ 44 } 44	{ 455 } 455
Case, Henry J., assignor of one-half to D. M. Osborne & Company, Auburn, N. Y. Bundle-carrier for grain-binders.....	388,630	Aug. 28	2189	{ 588 } 589	{ 44 } 44	{ 1014 } 1014
Case, Henry J., assignor of one-half to D. M. Osborne & Company, Auburn, N. Y. Grain-binding machine.....	393,815	Dec. 4	116	32	45	1095
Case, Herbert L. (See Spaulding and Case.)						
Case, Joel T., Bristol, Conn. Steam-engine.....	394,911	Dec. 18	1842	{ 477 } 478	{ 45 } 45	{ 1445 } 1445
Case, Joel T., assignor to J. T. Case Engine Company, New Britain, Conn. Double-acting steam-engine.....	394,675	Dec. 18	1430	{ 373 } 374	{ 45 } 45	{ 1364 } 1364
Case, John K. (See Purcell and Case.)						
Case, Joseph D. (See Severio and Case.)						
Case Plow Works, J. I. (See Sobey, William, assignor.)						
Case, Sextus, La Grange, Wis. Draft-equalizer.....	390,450	Oct. 2	352	93	45	74
Case Threshing Machine Company, J. I. (See Baker, Waterman S., assignor.)						
Casebolt, Henry, San Francisco, Cal. Elevated cable and car-propeller.....	384,124	June 5	416	{ 115 } 116	{ 43 } 43	{ 1200 } 1200
Casey, James, Cambridge, Mass. Egg-cup.....	386,804	July 31	2169	572	44	455
Casey, John F., St. Louis, Mo. Telephone system.....	394,832	Dec. 18	1697	{ 441 } 442	{ 45 } 45	{ 1419 } 1419
Casey, John F., St. Louis, Mo. Telephone-exchange system.....	394,833	Dec. 18	1701	442	45	1420
Casey, Thomas B., Cedar Falls, Iowa. Tire-bolt holder.....	382,029	May 1	224	59	43	555
Cashen, Marcus T. (See Kalinski, Crippen, and Cashen.)						
Cashill, John D., Princeton, N. J. Chimney cowl and ventilator.....	383,626	May 29	2610	690	43	1048
Cashin, Michael, New York, N. Y. Fishing-reel.....	390,752	Oct. 9	773	206	45	160
Cashin, Michael, New York, N. Y. Screw-driver.....	391,880	Oct. 30	2387	647	45	499
Cashman, Michael H. (See Jordan, Edmund, assignor.)						
Cashman, Michael H. (See Jordan and Templin, assignors.)						
Casilear, George W., Washington, D. C. Heliographic engraving.....	387,490	Aug. 7	428	.....	44	657
Casler, Benjamin G., Cleveland, Ohio. Coffin or casket steel.....	386,524	July 24	1769	467	44	370
Casperson, William H. (See Bowyer and Casperson.)						
Caspian, Paschal G., Philadelphia, Pa. Printing-film.....	383,042	May 15	1747	.....	43	866
Caspian, Paschal G., Philadelphia, Pa. Adjustable frame for holding printing mediums or films.....	392,586	Nov. 13	606	152	45	717
Cass, Nason W. (See Tuesdell, Lucius E., assignor.)						
Cassard, Howard, Baltimore, Md. Galvanic battery.....	388,181	Aug. 21	1533	408	44	880
Cassella & Co., Leopold. (See Weinberg, Arthur, assignor.)						
Cassella & Co., Leopold. (See Weinberg and Siebert, assignors.)						
Cassells, Wilfred E., Boston, Mass. Speaking-tube for fire-engines.....	376,067	Jan. 10	479	129	42	103
Casselman, Montgomery, and T. F. McGann, Minneapolis, Minn. Apparatus for heating cars with hot air.....	376,138	Jan. 10	588	157	42	124
Cassidy, F. G. (See Geffs, Mary L., assignor.)						
Cassidy, Hugh, Brooklyn, N. Y. Expandable reamer.....	376,427	Jan. 17	995	261	42	206
Cassidy, John W., Petaluma, Cal. Furnace.....	394,152	Dec. 11	612	164	45	1198
Cassleman, Christian F., Chicago, Ill. System and apparatus for propelling canal-boats.....	381,675	Apr. 24	2065	539	43	438
Castan, Gustav, Berlin, Germany. Theatrical apparatus for apparently suspending a person in mid-air.....	389,198	Sept. 11	607	155	44	1194
Castle, James, Toronto, Ontario, Canada. Advertising device for cars.....	375,987	Jan. 3	357	96	42	73
Castle, Justus. (See Pike, Castle, and Schopp.)						
Castle, Orlando L., Upper Alton, Ill., assignor to Gordian Nut Lock Association, Lakeport, Cal. Nut-lock.....	383,212	May 22	1991	522	43	924
Castle, Simeon B., Syracuse, N. Y. Thill-coupling.....	384,333	June 12	590	160	43	1244
Castle, William H., Geneva, Ohio. Animal-trap.....	391,118	Oct. 16	1321	352	45	269
Castlio, William M., assignor of three-fourths to L. D. and C. F. Stewart, Mechanicsville, and F. H. Krenning, Jr., St. Louis, Mo. Egg-case fastener.....	385,593	July 3	394	101	44	77
Castner, George L., Memphis, Tenn. Window-shade.....	386,961	July 31	2436	637	44	503
Castree-Mallory Company. (See Youngs, Edwin J., assignor.)						
Caswell, Charles H. (See Green and Caswell.)						
Caswell, William A., Chicago, Ill. Bottle-stopper.....	384,824	June 19	1474	385	43	1418



## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Catchpole, Alfred, Geneva, N. Y. Steam or hot-water radiator .....	379,047	Mar. 6	272	79	42	1017
Catchpole, Alfred, Geneva, N. Y. Boiler .....	379,048	Mar. 6	273	79 80	42	1017
Cately, Shepard W., assignor of one-half to A. M. Etling, Cortland, N. Y. Carriage-top spring .....	382,293	May 8	621	158	43	638
Cater, George P., San Francisco, Cal. Cable-railway grip .....	386,737	July 24	2057	542	44	425
Cathcart, Alexander T. (See Cathcart, Gilbert J. and W. L., assignors.)						
Cathcart, Gilbert J., deceased, (W. Cathcart, Gwynedd, administrator,) and W. L. Cathcart, Philadelphia; said W. Cathcart assignor to A. T. Cathcart, Gwynedd, Pa. Circular-knitting machine .....	395,214	Dec. 25	2314	593 594 595 596 597	45	1543
Cathcart, James L., Alexandria, Va. Releasing device for boats, &c. ....	380,786	Apr. 10	733	201	43	154
Cathcart, William, administrator. (See Cathcart, Gilbert J. and W. L.)						
Cathcart, William L. (See Cathcart, Gilbert J. and W. L.)						
Cather, John B., Flemington, W. Va. Fruit-gatherer .....	393,209	Nov. 20	1503	394	45	903
Catlin, Abel D. (See Garland and Catlin)						
Catlin, Abel D., Bay City, Mich. Stave-jointing machine .....	376,139	Jan. 10	589	157	42	124
Catlin, Abel D., Bay City, Mich. Cylinder for cotton-seed-hulling machines .....	380,787	Apr. 10	735	201	43	154
Catlin, Abel D., Bay City, Mich., assignor to Chattanooga Machinery Company, Chattanooga, Tenn. Milling-machine for scaring the ends of hand-saws .....	377,707	Feb. 7	535	137	42	595
Catlin, Abel D., Bay City, Mich., assignor to Chattanooga Machinery Company, Chattanooga, Tenn. Circular-sawing machine .....	377,708	Feb. 7	538	137	42	595
Catlin, Benjamin R. (See Holmes and Charles, assignors.)						
Catlin, Robert H. (See Deeds, John B., assignor.)						
Cattell, Thomas R., Wootton Waven, and A. H. Summers, Tanworth, county of Warwick, assignors of one-half to C. Walker, Wolverhampton, England. Animal-trap .....	378,767	Feb. 28	2111	557	42	930
Caudle, Archie B., Monroe, N. C. Combined burglar-alarm and sash-lock .....	391,881	Oct. 30	2388	648	45	499
Caugbrean, George H., assignor to himself and W. H. Robinson, Nevada, Mo. Pump .....	385,842	July 10	761	200	44	155
Caughey, S. Hamilton. (See McAvoy, Hugh L., assignor.)						
Caulfield, John, South Bend, Ind. Equalizer for vehicles .....	392,007	Oct. 30	2575	700	45	535
Caullet, Henry T., Trenton, N. J. Pantaloon .....	382,030	May 1	226	59	43	555
Caunter, George. (See Stevens and Caunter.)						
Cautius, Arthur, assignor to C. Pataky, Berlin, Germany. Lamp-burner .....	384,744	June 19	1351	352 353	43	1394
Cavalli, G. Andrea, San Francisco, Cal. Nail or rivet for boots or shoes .....	382,072	May 1	298	78	43	568
Cavanagh, James, New York, N. Y. Tank-valve .....	393,884	Dec. 4	225	60	45	1115
Cave, Amos. (See Cave, John, P., A., F., and A.)						
Cave, Arthur. (See Cave, John, P., A., F., and A.)						
Cave, Frederick. (See Cave, John, P., A., F., and A.)						
Cave, John, P., A., F., and A., Higham Ferrers, county of Northampton, England. Leather-cutting machine .....	379,857	Mar. 20	1485	392 393	42	1263
Cave, Paul. (See Cave, John, P., A., F., and A.)						
Caverhill, Frank, et al. (See Jamieson, James A., assignor.)						
Caverhill, John B., et al. (See Jamieson, James A., assignor.)						
Cavert, William, Sterling, Ill. Emery-wheel .....	376,854	Jan. 24	1656	433	42	338
Cazier, William, Waveland, Kans. Draft-equalizer .....	386,962	July 31	2428	638	44	504
Crease, Hendrick B., Havana, Ill. Grain-drill .....	391,298	Oct. 16	1572	417	45	317
Cecil, William V., Omaha, Nebr. Brick-setting .....	388,827	Sept. 4	22	9	44	1077
Celce, Frederick, Holyoke, Mass. Bolt .....	380,184	Mar. 27	1965	525	42	1367
Central Electrical Company. (See Russell, Samuel, assignor.)						
Centrifugal Filter Company. (See DeLisser, Richard L., assignor.)						
Cerelaine Manufacturing Company. (See Gaff, Thomas T., assignor.)						
Ceresole, Maurice, Ludwigshafen-on-the-Rhine, Bavaria, Germany, assignor to Badische Anilin and Soda Fabrik. Production of new red coloring-matter .....	377,349	Jan. 31	2364	.....	42	481
Ceresole, Maurice, Ludwigshafen-on-the-Rhine, Bavaria, Germany, assignor to Badische Anilin and Soda Fabrik. Production of new red coloring-matter .....	377,350	Jan. 31	2365	.....	42	481
Cery, Herman G. (See Waelde and Cery.)						
Chable, August F., assignor of one-half to J. C. Price, Evansville, Ind. Sad-iron .....	377,351	Jan. 31	2367	683	42	481
Chabot, Joseph A., et al. (See Gage, Charles, assignor.)						
Chadbourne, Zebulon L., Brooklyn, N. Y., assignor of one-half to V. E. Downer, Lyndhurst, N. J., and V. Verow, New York, N. Y. Gas-retort lid .....	393,617	Nov. 27	2125	556	45	1033
Chadd, William, Wilkes-Barré, Pa. Water and fire composite roofing .....	383,101	May 22	1836	481	43	893
Chadeayne, George H., et al. (See Manning, John C., assignor.)						
Chadeayne, George H. (See Sinclair, Harry W., assignor.)						
Chadsey, William R., Chicago, Ill., assignor to W. A. O. Hegeman, New York, N. Y. Car-coupling .....	384,018	June 5	258	74	43	1171
Chadsey, William R., Chicago, Ill., assignor to W. A. O. Hegeman, New York, N. Y. Car-coupling .....	387,766	Aug. 14	858	221	44	743
Chadwick Copying Book Company. (See Chadwick, Sager, assignor.)						
Chadwick, Hale, Penacook, N. H. Machine for cleaning and separating cranberries .....	377,667	Feb. 7	477	123	42	585
Chadwick, Richard and G. S. Boutwell, Providence, R. I. Machine for making hollow metallic knife-handles .....	378,287	Feb. 21	1428	373	42	789
Chadwick, Sager, Philadelphia, Pa., assignor, by mesne assignments, to Chadwick Copying Book Company, Trenton, N. J. Letter-copying book .....	391,299	Oct. 16	1574	417	45	317
Chafey, William H., and D. A. Wilcox, Lebanon, N. Y. Running-gear for vehicles .....	385,744	July 10	618	161 162	44	128
Chainay, Anguste, New Orleans, La. Device for closing the lids of water-closets .....	378,162	Feb. 21	1232	324	42	753
Challenge Corn Planter Company. (See Scofield, Levi, assignor.)						
Challoner, Frank, Omro, Wis. Shingle-saw-grinding machine .....	379,632	Mar. 20	1133	300	42	1194
Challoner's Sons, George. (See Philbrick, Josiah J., assignor.)						
Chambard, Peter F., Fayette, Ohio. Hay-elevator .....	377,063	Jan. 31	1946	511 512	42	402
Chamberlain, Charles C., Passaic, N. J. Bill-file .....	376,140	Jan. 10	592	158	42	124
Chamberlain, Charles C., Passaic, N. J. Bill-file .....	383,859	June 5	15	5	43	1124
Chamberlain, Charles C., Muskegon, Mich. Breech-loading ordnance .....	381,330	Apr. 17	1546	417	43	318
Chamberlain, Charles F., Goshen, Ind. Churn .....	379,447	Mar. 13	844	227	42	1133
Chamberlain, Edward G., San José, Costa Rica, Central America. Compound rail .....	382,409	May 8	799	201	43	671
Chamberlain, William C., Cedar Bluff, Va. Car-coupling .....	376,797	Jan. 24	1566	411	42	323
Chamberlain, William D. (See Murphey, Frank P., assignor.)						
Chamberlin, Frank P., Middletown, Ohio. Fence-building apparatus .....	376,512	Jan. 17	1118	292	42	229
Chamberlin, George, assignor of one-half to J. Chamberlin and J. G. Corcoran, Pittsburg, Pa. Air-compressor .....	376,141	Jan. 10	593	158	42	124
Chamberlin, George S., New York, N. Y. Bottle-stopper .....	383,277	May 22	2092	550	43	942

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Chamberlin, George W. (See Turley and Chamberlin.)						
Chamberlin, James, <i>et al.</i> (See Chamberlin, George, assignor.)						
Chamberlin, Louis E. (See Slaght, Charles P., assignor.)						
Chamberlin, Philander, Santa Cruz, Cal. Speculum.....	380,745	Apr. 10	662	183	43	141
Chamberlin, Willis B., Worcester, Mass. Attachment for supply-tanks.....	376,292	Jan. 10	799	211	42	163
Chambers, Alexander, Toledo, Ohio. Water-trap for gas-mains.....	380,860	Apr. 10	835	226 227	43	173
Chambers, Bering, Quinlan Company. (See Bering, James E., assignor.)						
Chambers, Cyrus, Jr., Philadelphia, Pa. Paper-folding machine.....	386,296	July 17	1426	376 377	44	292
Chambers, Cyrus, Jr., Philadelphia, Pa. Belt-tightener for brick-machines.....	386,297	July 17	1427	377	44	292
Chambers, Cyrus, Jr., and W. Mendham, Philadelphia, Pa., assignors to said Chambers. Machine for folding and pasting sheets of paper.....	386,295	July 17	1423	375 376	44	291
Chambers, John H., Schenectady, N. Y. Collin.....	382,136	May 1	382	100	43	583
Champion, Henry E. (See Buck, George W., assignor.)						
Champion, Theodore H., Minneapolis, Minn. Blower for boiler-furnaces.....	393,357	Nov. 27	1726	457	45	954
Champion Trimmer Company. (See Coy and Fullerton, assignors.)						
Champney, Henry T., New York, N. Y. Food compound.....	393,459	Nov. 27	1873		45	982
Chandler, Clarence A., East Bridgewater, Mass. Vise.....	389,792	Sept. 18	1505	396 397	44	1374
Chandler, Jesse, Red Stone, Kans. Gate.....	383,213	May 22	1992	522	43	924
Chandler & Price. (See Price, William H., Jr., assignor.)						
Chandler, Samuel P., Ashton, S. C. Puzzle.....	393,816	Dec. 4	118	33	45	1695
Chandler, Willie N., Norwood, N. Y. Propeller.....	378,660	Feb. 28	1067	522	42	904
Chantrell, Felix, Reading, Pa. Screw-driver.....	393,419	Nov. 27	1817	479	45	971
Chantrell, Felix, Reading, Pa. Screw-driver.....	393,420	Nov. 27	1818	480	45	971
Chantrell, Felix, Reading, Pa. Screw-driver.....	393,421	Nov. 27	1819	480	45	972
Chapel, Deodatus, assignor of one-half to C. Nitting, Jr., San Francisco, Cal. Hand-car.....	377,352	Jan. 31	2368	684	42	481
Chapin, John L. (See Priestley, John H., assignor.)						
Chapin, Lucius D., Hyde Park, Ill. Manufacturing wrought-iron.....	389,545	Sept. 18	1126		44	1301
Chaplin, Orril R., Boston, Mass. Shoe-nailing machine.....	391,020	Oct. 16	1184	314 315	45	243
Chaplin, William, St. Catharines, Ontario, Canada. Lathe.....	375,968	Jan. 3	358	96	42	73
Chapman & Armstrong Manufacturing Company. (See Dalton, Daniel F., assignor.)						
Chapman, David B., Aurora, Ill. Folding horse.....	393,210	Nov. 20	1509	395	45	903
Chapman, Eugene M. (See Hitchcock and Chapman.)						
Chapman, Henry A., Strawberry Point, Iowa. Horse-power.....	387,491	Aug. 7	429	112	44	657
Chapman, George J., Tottenham, county of Middlesex, England. Velocipede.....	391,882	Oct. 30	2390	648	45	500
Chapman, George T., White Plains, N. Y. Boot or shoe.....	378,040	Feb. 14	1045	273	42	711
Chapman, George W. (See Jacobs and Chapman.)						
Chapman, Henry J., Middleville, Mich. Table-leaf support.....	382,952	May 15	1587	414	43	835
Chapman, John A., Milwaukee, Wis. Wrench and bolt-cutter.....	392,183	Nov. 6	11	4	45	597
Chapman, John A., Milwaukee, Wis. Spring-gear for vehicles.....	392,184	Nov. 6	13	4	45	597
Chapman, Joseph A., New London, Conn. Kink-preventer for silk-spinning machines.....	384,890	June 19	1572	409	43	1436
Chapman, Joseph L., Haddonfield, N. J. Elevated railway and car.....	379,681	Mar. 20	1205	319	42	1209
Chapman, Luke, assignor to Collins Company, Collinsville, Conn. Guide for rolling-mills.....	388,121	Aug. 21	1440	385	44	863
Chapman, Mark C. (See Chapman, Matthew T. and M. C.)						
Chapman, Matthew T., Aurora, Ill. Pipe-well coupling.....	378,234	Feb. 21	1346	355	42	775
Chapman, Matthew T., Aurora, Ill. Apparatus for sinking wells.....	382,689	May 15	1234	321 322 323	43	765
Chapman, Matthew T. and M. C., Aurora, Ill. Windmill.....	378,235	Feb. 21	1347	355 356	42	776
Chapman, Thomas G., assignor to F. G. Austin, Chicago, Ill. Well-drilling machinery.....	394,457	Dec. 11	1067	278	45	1284
Chapman, Thomas L., Richmond, Va. Railway semaphore-signal.....	381,333	Apr. 17	1550	418	43	318
Chapman, Thomas L., Richmond, Va. Cup-holder.....	392,105	Oct. 30	2738	744	45	567
Chapman, Wilder B., Omro, Wis. Neck-yoke.....	392,587	Nov. 13	608	153	45	717
Chapman, William A., assignor to Ramapo Iron Works, Hillburn, N. Y. Spring-rail frog.....	385,594	July 3	395	101	44	77
Chapon, Maximin, Cours, Rhône, France. Spinning-machine.....	378,288	Feb. 21	1430	373	42	789
Chapoton, Edmund A. (See Carroll, Daniel W., assignor.)						
Chappatte, Edward C., assignor to Keystone Watch Case Company, Philadelphia, Pa. Watch-case.....	384,346	June 12	764	199	43	1274
Chappell, Benjamin F., South Windham, Conn. Pipe-wrench.....	385,595	July 3	397	101	44	78
Chappell, Chase, Maxwell & Co. (See Dnell and Laass, assignors.)						
Chappell, Chase, Maxwell & Co. (See Lottridge and Einsfield, assignors.)						
Chappell, Francis W., Baltimore, Md. Sulphuric-acid-distributing apparatus.....	378,289	Feb. 21	1432	373 374	42	787
Chappell, George F., assignor to L. Lawrence, New York, N. Y. Letter-file.....	379,049	Mar. 6	274	80	42	1617
Chappell, Thomas C. (See Moore, Everett D., assignor.)						
Chappell, Thomas F. (See Pettingill and Chappell.)						
Charboneau, Pascal B., Bay City, assignor of one-half to T. H. Smith, East Saginaw, Mich. Apparatus for distilling water.....	383,704	May 29	2720	718	43	1072
Charland, Charles T. (See Côté and Charland.)						
Charles, A. P. (See Byers, Jesse S., assignor.)						
Charles, John. (See Charles, Lewis and J.)						
Charles, Lewis and J., Clear Spring, Md. Planter and fertilizer-distributor.....	381,335	Apr. 17	1552	418 419	43	319
Charles, Lewis N. (See Holmes and Charles.)						
Charles, William. (See Brüser, Frank, assignor.)						
Charleson, John, assignor to W. Vogel & Bros., Brooklyn, N. Y. Lantern.....	384,234	June 12	591	160	43	1244
Charleville, George W., McKinney, Tex. Gate-latch.....	387,394	Aug. 7	293	74	44	628
Charpentier, Camille, Paris, France. Tool for seizing fibers and other objects of small diameter.....	389,195	Sept. 11	604	155	44	1193
Charters, John H., Ekalaka, Mont. Ter. Cockeye.....	395,033	Dec. 25	2023	522	45	1489
Chase, Albert B., Pueblo, Colo. Pencil or pen case.....	378,768	Feb. 28	2112	558	42	931
Chase, Andrew J., Boston, Mass. Apparatus for distilling water.....	392,498	Nov. 6	472	119	45	684
Chase, Andrew J., assignor to W. A. Chase, Boston, Mass. Door-securer.....	385,966	July 10	867	229	44	178
Chase, Charles D. (See Corey, John A., assignor.)						
Chase, Charles D., Northumberland, N. H. Toilet-paper.....	391,582	Oct. 23	1959	529	45	403
Chase, De Forest W. (See Morse and Chase.)						
Chase, Edward H. (See Hall, George A., assignor.)						
Chase Elevator Company. (See Chase, Philander F., assignor.)						
Chase, Elmer A., Yankton, Dak. Ter. Wire-tightener.....	385,998	July 10	979	261	44	200

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Chase, Frank, assignor to Chase Lasting Machine Company, Boston, Mass. Lasting-machine	376,368	Jan. 10	905	237	42	182
Chase, Frank, assignor to Chase Lasting Machine Company, Boston, Mass. Lasting-tack strip	391,688	Oct. 23	2097	568	45	431
Chase, Fred. C., Lowville, and D. A. B. Bailey, Potsdam, N. Y. Wrist-pin for engines	393,211	Nov. 20	1509	395	45	303
Chase, George W., Tonawanda, N. Y. Machine for packing shavings	380,185	Mar. 27	1966	525	42	1367
Chase, Henry A., Stoneham, Mass. Mariner's recording compass	385,042	June 26	1806	465	43	1492
Chase, Henry A., Stoneham, Mass. Electro-magnetic device	389,196	Sept. 11	604	155	44	1193
Chase, Henry A., Stoneham, Mass. Electric motor	389,197	Sept. 11	606	155	44	1194
Chase, Henry A., Stoneham, Mass. Conduit for electric railways	392,664	Nov. 13	720	182	45	738
Chase, Henry A., Newton, Mass. Electric alarm compass	385,043	June 26	1813	465	43	1493
Chase, Henry F. (See Crandall, George H., assignor.)						
Chase, J. Herbert, Montreal, Quebec, Canada. Valve for bellows	385,999	July 10	980	262	44	200
Chase, Jefferson, assignor to Chase & Son, Portland, Me. Sprocket-wheel	394,335	Dec. 11	900	237	45	1255
Chase, Josiah B. (See Richardson and Chase.)						
Chase Lasting Machine Company. (See Chase, Frank, assignor.)						
Chase, Milton. (See Morse and Chase.)						
Chase, Milton. (See Sargent, Chase, and Cram.)						
Chase, Milton, Haverhill, Mass. Tire-tightener	379,561	Mar. 20	1023	273	42	1174
Chase, Oliver R., Boston, Mass. Lozenge-machine	376,068	Jan. 10	480	130	42	103
Chase, Philander F., assignor to Chase Elevator Company, Chicago, Ill. Grain transferring and weighing elevator apparatus	383,860	June 5	17	5.6	43	1124
Chase, Rolla M., Bethel, Vt. Heater for dental disks	384,509	June 12	1005	262	43	1319
Chase, Sidney A., Ewart, Mich. Electric fire-alarm signal-box	388,631	Aug. 28	2191	589	44	1014
Chase & Son. (See Chase, Jefferson, assignor.)						
Chase, Warren A. (See Chase, Andrew J., assignor.)						
Chase, Wellington. (See Pratt and Chase.)						
Chase, William R., Lynn, assignor to himself and C. A. Shaw, Boston, Mass. Last for boots or shoes	385,502	July 3	254	65	41	51
Chaffield, Edward A., New Haven, Conn. Fruit-packing press	385,967	July 10	868	229	44	178
Chaffanoga Machinery Company. (See Catlin, Abel D., assignor.)						
Cheetham, Frederick W., Hyde, county of Chester, England. Manufacture of felt hats, caps, &c.	382,798	May 15	1381		43	793
Cheetham, Frederick W., Hyde, county of Chester, England. Felt hat	394,336	Dec. 11	901	237	45	1254
Cheever, Benjamin H. (See Stevens, Benjamin D., assignor.)						
Chemische Fabrik Gössnitz, Bottger E. Seidler. (See Omlolt, Johannes, assignor.)						
Chemische Fabrik, vormals Hofmann & Schoetensack. (See Hofmann, Panajota W., assignor.)						
Chenery, Richard J. (See Gleich, Krause, and Chenery.)						
Cheney, Cleveland J., Lowell, Mass. Water-gate	388,632	Aug. 28	2194	589	44	1015
Cheney, Frederick A., Elmira, N. Y. Lightning-arrester for electric circuits	387,051	July 31	2543	669	44	526
Cheney, James W., Detroit, Mich. Vise	389,199	Sept. 11	608	156	44	1194
Cheney, John M., Southbridge, Mass. Loom-shuttle spindle	394,458	Dec. 11	1069	278	45	1284
Cherrier, Francis E., assignor of one-half to W. E. Putney, Fitchburg, Mass. Whiffletree-coupling	391,021	Oct. 16	1190	316	45	245
Cherry, Matthew A., Washington, D. C. Velocipede	382,354	May 8	715	181	43	655
Chesbrough, Robert A., New York, N. Y. Hot-air furnace	376,812	Jan. 24	1590	417	42	327
Chesbrough, Robert A., New York, N. Y. Electric railway	386,184	July 17	1248	333	44	260
Cheshire Watch Company. (See Oehl, Henry, assignor.)						
Chester, Elijah G., Philadelphia, Pa., assignor of two-thirds to E. Sutro, Brooklyn, N. Y., and P. E. Sutro, Philadelphia, Pa. Making stockings	380,421	Apr. 3	161	46	43	34
Cheswright, Charles, Camden-Town, county of Middlesex, England. Capsule for bottles	389,954	Sept. 25	1757	465	44	1430
Cheyenne Manufacturing Company. (See Harrington, Patrick S., assignor.)						
Cheyne, Frederick H., Brampton, Ontario, Canada. Street and station indicator	388,828	Sept. 4	29	9	44	1078
Cheyne, John, Paterson, N. J. Drawing attachment for carding-machines	391,781	Oct. 30	2235	608	45	468
Chicago Manila Paper Works. (See Hicks, Oliver H., assignor.) (Reissue.)						
Chicago Mortising Machine Company. (See Douglas, Charles H., assignor.)						
Chicago Roller Spring Company. (See Noyes, Walter B., assignor.)						
Chicago Safe and Lock Company. (See Gross, Henry, assignor.)						
Chicago Sash Pulley Company. (See Phillips, Francis V., assignor.)						
Childer, David D., Hackettstown, N. J., assignor of part to G. E. Knowles, New York, N. Y., and E. M. Osmun, Hackettstown, N. J. Car-brake	376,582	Jan. 17	1208	319	42	247
Child, Arthur W., and G. B. Childs, Clerkenwell, county of Middlesex, England. Carriage-window	383,437	May 29	2329	618	43	991
Child, Franklin D., Newton, Mass. Valve for steam-engines	385,843	July 10	763	200	44	155
Child, Stephen L., Providence, R. I. Button or stud	377,235	Jan. 31	2185	577	42	450
Childers, Alherry. (See Billingslea, Asa A., assignor.)						
Childs & Co., J. M. (See Childs, J. Morris, assignor.) (Reissue.)						
Childs, Eugene. (See Noble and Childs.)						
Childs, George B. (See Child and Childs.)						
Childs, Heman W. (See Denchey and Childs.)						
Childs, J. Morris, Utica, N. Y. Harrow	378,081	Feb. 21	1105	280	42	731
Childs, J. Morris, assignor to J. M. Childs & Co., Utica, N. Y. Harrow. (Reissue.)	10,293	Jan. 10	986	257	42	196
Childs, James E., New York, N. Y., assignor to W. J. Morden, Chicago, Ill. Safety-guard for railway-bridges	388,122	Aug. 21	1441	386	44	863
Chippendale, Cornelius. (See Chippendale, Peter A., assignor.)						
Chippendale, Peter A., assignor to himself and C. Chippendale, Lewiston, Me. Potato-digger	379,682	Mar. 20	1206	319	42	1209
Chisholm, Daniel, Utica, N. Y. Lamp-hanger	394,153	Dec. 11	612	164	45	1198
Chisholm, Isaac W., New Concord, Ohio. Galvanometer	390,067	Sept. 25	1926	508	44	1464
Chisholm, John W., Liverpool, Nova Scotia, Canada. Car-coupling	390,345	Oct. 2	207	55	45	44
Chisholm, William. (See Dow, Joseph H., assignor.)						
Chisholm, William, Allegheny, Pa. Sash-lock	391,119	Oct. 16	1323	353	45	269
Chivers, Herbert C., Tecumseh, Kans. Gate	392,718	Nov. 13	795	202	45	754
Choate, Ira, Somerville, and C. O. Norcross, Lynn, Mass. Artificial leather	376,855	Jan. 24	1657		42	338
Chormann, Ernest G., assignor of one-half to H. Weston, Philadelphia, Pa. Folding furniture	392,407	Nov. 6	346	85	45	659
Chouteau, Pierre. (See Barth, Gustav A., assignor.)						
Christa, Philip, Detroit, Mich. Feeder for stone-sawing machines	384,125	June 5	418	116	43	1201
Christen, Frank, St. Louis, Mo. Bellows	382,214	May 1	489	126	43	603
Christenson, Charles L., Vailsburg, N. J. Milk-measure	376,293	Jan. 10	800	212	42	163
Christian, William, East Orange, N. J. Valve for gage-cocks and faucets	392,539	Nov. 6	529	133	45	696
Christie, Ebenezer, St. Louis, Mo. Waffle-iron	394,058	Dec. 4	476	127	45	1162

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Christie, James H., Brooklyn, N. Y. Wrench.....	381,213	Apr. 17	1378	368	43	284
Christie, James J., Riverside, N. J. Glass-grinding machine.....	386,738	July 24	2059	{ 542 543 }	44	425
Christie, Samuel A. (See Murdock, Herman E., assignor.)						
Christie, Thomas K. (See Ward, Alexander F., assignor.)						
Christie, William K., Ionia, Mich. Journal-box.....	385,503	July 3	256	65	44	52
Christin, Arthur, Chicago, Ill. Soda-water fountain.....	376,471	Jan. 17	1057	276	42	217
Christner, David C., assignor to L. J. Christner, Philadelphia, Pa. Obtaining the measure- ment of the human form.....	389,287	Sept. 11	755	{ 191 192 }	44	1224
Christner, Libbie J. (See Christner, David C., assignor.)						
Christofferson, Christian. (See Myré and Christofferson.)						
Christophersen, Christian. (See Hansen, Sigvart, assignor.)						
Chrysty, James W., Pataskala, Ohio. Type-writing machine.....	393,142	Nov. 20	1403	{ 367 368 }	45	881
Church, Andrew and C. A., Morenci, Mich. Hay-sling.....	384,960	June 26	1667	433	43	1463
Church, Benjamin S., New York, N. Y. Steam or other engine.....	392,988	Nov. 20	1204	313	45	842
Church, Charles A. (See Church, Andrew and C. A.)						
Church, Duane F., Newton, Mass. Stem winding and setting mechanism for watches.....	379,050	Mar. 6	275	{ 80 81 }	42	1017
Church, Duane H., Waltham, Mass. Watch-mainspring.....	385,908	July 10	869	229	44	178
Church, Duane H., Newton, Mass. Alloy of copper, nickel, and gold.....	385,909	July 10	870		44	178
Church, George M. (See Pierce, Nathaniel W., assignor.)						
Church, James E., Minneapolis, Minn. Fire-signal and burglar-alarm.....	380,186	Mar. 27	1968	526	42	1367
Church, Melvin B., Grand Rapids, Mich. Sample-card.....	376,634	Jan. 17	1305	343	42	264
Church, Melvin B., Grand Rapids, Mich. Advertising-circular.....	376,856	Jan. 24	1658	433	42	338
Church, R. Howard. (See Cummings and Church.)						
Church, Thomas L. (See Botsford and Church.)						
Church, Walter A., West Eaton, assignor to C. E. Davis, G. W. Dennis, A. Bradshaw, and F. Young, Clifford, N. Y. Piano-forte pin for balance-rails.....	395,264	Dec. 25	2398	614	45	1558
Church, Walter C., assignor of one-half to H. Smith, Brixton, county of Surrey, England. Bottle-stopper.....	376,977	Jan. 24	1816	477	42	369
Church, William S., administrator, et al. (See Root, John B.)						
Cincinnati Type Foundry. (See Barth and Lietze, assignors.)						
Circle, Franklin P., assignor of one-half to A. K. Hahn, Springfield, Ohio. Tug-fastener ..	381,906	May 1	14	4	43	518
Cisco, George W., Montvale, N. J. Car-coupling.....	388,633	Aug. 28	2195	590	44	1015
Cisco, George W., Montvale, N. J. Throttling device for steam-cylinders.....	389,736	Sept. 18	1431	{ 373 374 }	44	1358
Cisco, George W., Montvale, N. J. Balanced slide-valve.....	389,737	Sept. 18	1432	{ 374 375 }	44	1359
Cissel, Richard S. T. (See Snyder, Peter A., assignor.)						
Cissel, Robert B., Elizabeth, assignor to Backus Water Motor Company, Newark, N. J. Rotary fan.....	380,788	Apr. 10	736	201	43	155
Cissel, John, Golden Lake, Ark. Animal-trap.....	392,185	Nov. 6	15	4	45	597
Cité, Joseph D., Fishkill-on-the-Hudson, N. Y., assignor to Fishkill Landing Machine Com- pany. Dash-pot.....	393,690	Nov. 27	2233	586	45	1056
City Button Works. (See Liebmann, Rudolph, assignor.)						
Clabough, Norman B., Frederick, Md. Washing-machine.....	382,755	May 15	1317	346	43	781
Cladek, Frank T., Rahway, N. J. Door-securer.....	379,002	Mar. 6	209	56	42	1006
Claffy, John, et al. (See Greene, Patrick R., assignor.)						
Cladin, Charles R. B., Jr., and J. W. Flagg, Worcester, Mass. Galvanic battery.....	381,336	Apr. 17	1554	419	43	319
Cladin, Reuben J., Lidgerwood, Dak. Ter. Roof.....	384,961	June 26	1668	434	43	1463
Cladin, Waldo M. (See Robb, James, assignor.)						
Clamer, Francis J., assignor of two-thirds to C. Wolters and J. G. Hendrickson, Philadel- phia, Pa. Galvanic boiler-cleaning compound.....	387,145	July 31	2698	707	44	552
Clamer, Francis J., assignor of two-thirds to C. Wolters and J. G. Hendrickson, Philadel- phia, Pa. Galvanic boiler-cleaning compound.....	387,146	July 31	2699	707	44	552
Clancy, Edward L., Aberdeen, Dak. Ter. Cuff-holder.....	385,239	June 26	2099	538	43	1552
Clapham, Thomas, Roslyn, N. Y. Mast-hoop.....	387,767	Aug. 14	859	222	44	743
Clapp, Cyrus C. (See Walker, Albert H., assignor.)						
Clapp, Dwight C., assignor of one-half to D. M. Estey, Owosso, Mich. Bureau.....	381,337	Apr. 17	1555	419	43	320
Clapp, Dwight C., assignor of one-half to D. M. Estey, Owosso, Mich. Bureau.....	381,760	Apr. 24	2182	571	43	460
Clapp, Dwight C., assignor of one-half to D. M. Estey, Owosso, Mich. Bureau.....	390,840	Oct. 9	898	238	45	183
Clapp, George L., Ithaca, N. Y. Pole or thill for vehicles.....	393,296	Nov. 20	1634	430	45	927
Clapp & Griffiths Steel Company. (See Hunt, Robert W., assignor.)						
Clapp, James H., assignor to J. L. Board, Chicago, Ill. Can-ending machine.....	392,853	Nov. 13	1004	257	45	796
Clapp, Mortimer A., assignor to D. M. Osborne & Company, Auburn, N. Y. Harvester-reel.....	377,372	Feb. 7	7	2	42	496
Clapp, Mortimer A., Auburn, assignor to D. M. Osborne & Company, New York, N. Y. Harvester-reel.....	394,059	Dec. 4	477	127	45	1162
Clapp, William H., Auburn, N. Y. Mortising-machine.....	393,817	Dec. 4	118	33	45	1095
Clapper, Theodore. (See Martindale, Constantine S., assignor.)						
Clare, Edwin H., L'Original, Ontario, Canada. Vegetable or root cutter.....	383,438	May 29	2330	619	43	991
Clare, Obadiah B., Cedar Rapids, Iowa. Trestle.....	390,753	Oct. 9	774	206	45	160
Clark, Aaron T., Newburg, N. Y., assignor to himself and G. J. Ferry, Orange, N. J. Felt- ing-roll for hat-sizing machines.....	378,573	Feb. 28	1844	487	42	880
Clark, Albert, Lansing, Mich. Vehicle-spring.....	393,297	Nov. 20	1635	431	45	927
Clark, Albert M., Marshalltown, Iowa. Check or card case.....	389,873	Sept. 25	1644	436	44	1407
Clark, Alexander E., Buckholts, Tex. Pump.....	392,008	Oct. 30	2576	701	45	536
Clark, Alexander H., Fond du Lac, Wis. Stuffing-box.....	384,424	June 12	874	228	43	1295
Clark, Allison N., Plainville, Conn. Fruit-packing machine.....	392,106	Oct. 30	2739	{ 744 745 }	45	568
Clark, Arthur S., Saline, Mich. Wind-engine.....	386,454	July 24	1659	438	44	350
Clark, Asa. (See Ashley, Lucius E., assignor.)						
Clark, Asa. (See Reed and Clark.)						
Clark, Burnam R., Union Grove, Wis. Vise.....	378,682	Feb. 21	1105	289	42	731
Clark, Charles D., Elmira, N. Y. Apparatus for constructing sewers.....	392,989	Nov. 20	1207	314	45	842
Clark, Charles E., et al. (See Loree, Manfred, assignor.)						
Clark, Charles F. (See Bloomfield and Clark.)						
Clark, Charles J., Keokuk, Iowa. Fire-escape.....	388,829	Sept. 4	31	10	44	1078
Clark, Chester C. (See Titus and Clark.)						
Clark & Company, George M. (See Wallace, J. Bennett, assignor.)						
Clark, Dallas P., Jersey City, N. J. Vehicle-spring.....	392,408	Nov. 6	347	85	45	660
Clark, David P., et al. (See Loree, Manfred, assignor.)						
Clark, David P., and M. U. Loree, Miamisburg, Ohio. Device for securing the ends of car- pet in rolls.....	378,290	Feb. 21	1434	374	42	790

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Clark, David Y., Bristol, Conn. Stanchion.....	376,069	Jan. 10	484	131	42	104
Clark, E. D. (See Pero, George W., assignor.)						
Clark, E. J., et al. (See Thompson, Elias H., assignor.)						
Clark, E. P., et al. (See Slagle, Oliver, assignor.)						
Clark, Edward L., Pittsburg, Pa. Rolls.....	390,203	Oct. 2	11	3	45	5
Clark, Elisha, Felton, Cal. Side-hill plow and road-grader.....	375,802	Jan. 3	107	31	42	25
Clark, Ellwood. (See Clark, Lindley and E.)						
Clark, Embury P., and D. L. Wren, Holyoke, Mass. Abacus.....	378,866	Mar. 6	10	3	42	969
Clark, Embury P., and N. D. Ingraham, Holyoke, Mass. Button-fastener.....	384,019	June 5	258	74	43	1171
Clark, Embury P., and N. D. Ingraham, Holyoke, Mass. Safety-pin.....	386,000	July 10	981	262	44	201
Clark, Embury P., and N. D. Ingraham, Holyoke, Mass.; said Clark assignor to said Ingraham. Button-fastener.....	393,740	Dec. 4	7	3	45	1074
Clark, Ernest W., and J. Crawford, Cambridge, Mass. Water-closet.....	390,204	Oct. 2	12	4	45	5
Clark, Francis D., assignor of one-half to F. E. Shaw, Sinclairville, N. Y. Check-hook.....	387,577	Aug. 7	588	153	44	685
Clark, Francis E., assignor of one-fourth to C. A. Hess and W. J. Townsend, New York, N. Y. Insulation for mechanical-telephone conductors.....	387,569	Aug. 14	1170	317	44	805
Clark, Frank M. (See Low and Clark.)						
Clark, Franklin E., Detroit, Mich. Pillow-sham holder.....	378,867	Mar. 6	11	3	42	969
Clark, Franklin S., Charleston, S. C. Obtaining creosote, &c.....	388,529	Aug. 28	2042	549	44	986
Clark, Franklin S., Charleston, S. C. Pine-oil product.....	390,451	Oct. 2	353		45	75
Clark, Franklin S., Charleston, S. C. Pine-oil product.....	390,452	Oct. 2	354		45	75
Clark, Franklin S., Charleston, S. C. Refining pine-oil.....	390,454	Oct. 2	357		45	75
Clark, Frederick A., Newark, N. J. Ironing-table.....	390,754	Oct. 9	776	206	45	160
Clark, Gates A., assignor to Clark's Patent Coking and Smokeless Furnace Company, Rochester, N. Y. Furnace.....	392,947	Nov. 13	1128	293	45	820
Clark, George H., Boston, Mass. Lasting-jack.....	384,891	June 19	1573	409	43	1436
Clark, George H., Campello, Mass., assignor to Clark Relasting and Shoe-Treering Company, Portland, Me. Last.....	388,830	Sept. 4	32	10	44	1078
Clark, George H., Campello, Mass., assignor to Clark Relasting and Shoe-Treering Company, Portland, Me. Boot-tree.....	388,831	Sept. 4	33	10	44	1079
Clark, George H., Campello, Mass., assignor to Clark Re-Lasting and Shoe Treering Company, Portland, Me. Follower or form for boots or shoes.....	394,154	Dec. 11	614	164	45	1198
Clark, George M., Higganum, Conn. Combined seeder and harrow.....	380,422	Apr. 3	165	46, 47	43	34
Clark, Henry A., Boston, Mass. Rubber cement.....	389,055	Sept. 4	362		44	1141
Clark, Henry A., Boston, Mass. Rubber cement.....	389,056	Sept. 4	363		44	1141
Clark, Henry H. (See Miner, Charles N., assignor.)						
Clark, Henry M., assignor to Stanley Rule and Level Company, New Britain, Conn. Bench-plane.....	378,494	Feb. 28	1731	457	42	858
Clark, Herbert M. (See Bowen, George A., assignor.)						
Clark, Hiram, Augusta, Me. Vehicle-gear.....	377,190	Jan. 31	2114	558	42	437
Clark, Howard M. (See Mintzer, George W., assignor.)						
Clark, James A., Herkimer, N. Y. Paper-cutting attachment for paper-box-covering machines.....	392,313	Nov. 6	194	50, 51	45	631
Clark, James F., Morenci, Mich. Manufacturing brick.....	382,866	May 15	1465	384	43	811
Clark, James F., Denver, Colo. Nut-lock.....	386,024	July 24	1899	502	44	397
Clark, James W., et al. (See Williams and Lucock, assignors.)						
Clark, James W., Etna, Ohio. Door-bell.....	393,818	Dec. 4	120	33	45	1095
Clark, Joel, Minneapolis, Minn. Fire-escape.....	379,934	Mar. 27	1612	429	42	1297
Clark, John, Sheffield, Iowa. Check-row planter.....	388,530	Aug. 28	2044	550	44	986
Clark, John, assignor to himself and M. Gilmartin, Green Point, N. Y. Pipe-wrench.....	377,668	Feb. 7	479	123	42	585
Clark, John D., Clare, Mich. Car-coupling.....	393,143	Nov. 20	1409	368	45	882
Clark, John F., New York, N. Y. Steam-boiler furnace.....	385,444	July 3	167	45	44	34
Clark, John M., Hebron, N. Y. Car-coupling.....	387,395	Aug. 7	293	75	44	628
Clark, John W., Utica, N. Y. Heating-furnace.....	379,364	Mar. 13	722	197	42	1109
Clark, John W., assignor of one-half to L. H. Kirkland, Jackson, Miss. Cultivator.....	388,832	Sept. 4	34	11	44	1079
Clark, John W. W., Riverside, Ill. Spirit-level and straight-edge.....	393,539	Nov. 27	2011	525 } 526 }	45	1010
Clark, Julius S., Rockford, Ill. Trace-fastening.....	381,234	Apr. 17	1551	418	43	319
Clark, Lindley and E., Cuba, Ohio. Hay-carrier.....	378,190	Feb. 21	1267	335	42	760
Clark, Lorenzo D., Stoughton, Wis. Axle-box.....	386,525	July 24	1770	468	44	370
Clark, Martin. (See Devers, William J., assignor.)						
Clark, Martin M. (See Brown and Clark.)						
Clark, Melville, Chicago, Ill. Reed-organ.....	384,609	June 19	1151	{ 304 305 }	43	1355
Clark, Melville, Chicago, Ill. Organ-stop knob.....	392,990	Nov. 20	1209	311	45	842
Clark, Melville, Chicago, Ill. Stop-knob.....	394,246	Dec. 11	758	200	45	1224
Clark, Melville, Chicago, Ill. Reed-organ.....	394,247	Dec. 11	759	201	45	1225
Clark, Melville, Chicago, Ill. Pitman for reed-organ actions.....	394,248	Dec. 11	760	201	45	1225
Clark, Merrill E., assignor of one-third to E. J. Bardwell, Worcester, Mass. Machine for turning wooden rings.....	389,057	Sept. 4	364	95, 96	44	1141
Clark, N. Beach, Washington, D. C., and F. B. King, Baltimore, Md. Steam-boiler.....	386,526	July 24	1771	{ 468 469 }	44	371
Clark, Nathan B., Washington, D. C., and F. B. King, Baltimore, Md. Hot-air feeder.....	386,527	July 24	1775	469	44	371
Clark, Philo B., and G. J. Klingler, Brooklyn, N. Y. Knife-sharpening attachment for skiving-machines.....	384,020	June 5	261	74, 75	43	1172
Clark, Phineas W., Lowell, Mass. Wire-cutter.....	380,618	Apr. 3	468	133	43	95
Clark Re-Lasting and Shoe Treering Company. (See Clark, George H., assignor.)						
Clark, Robert E., and J. L. Zeigler, Fort Motte, S. C. Insect-powder duster.....	392,314	Nov. 6	196	51	45	631
Clark, Roswell D., Cortez, Nev. Purifying hyposulphite solutions used in leaching ores.....	387,339	Aug. 7	208		44	611
Clark, Roswell D., Cortez, Nev. Extracting gold and silver.....	387,492	Aug. 7	432		44	657
Clark, Samuel E., Philadelphia, Pa. Mechanical toy frog.....	375,867	Jan. 3	145	51	42	40
Clark, Samuel E., Philadelphia, Pa. Toy riding-stick.....	385,910	July 10	870	230	44	178
Clark, Sarah M., Milwaukee, Wis. Dough-mixing machine.....	377,064	Jan. 31	1949	512	42	403
Clark & Sons, N. (See Palmer, Frank L., assignor.)						
Clark, Thomas. (See Hooper and Clark.)						
Clark, William C., Portland, Me. Annunciator.....	394,555	Dec. 18	1224	319	45	1327
Clark, William H. and W. J., Salem, Ohio. Oil-can.....	386,680	July 24	1991	526	44	413
Clark, William H. H., St. Louis, Mo. Stamping-press.....	380,423	Apr. 3	169	47	41	35
Clark, William J. (See Clark, William H. and W. J.)						
Clark, William M., Boscobel, Wis. Grain-binder.....	379,365	Mar. 13	723	{ 197 198 199 }	42	1109
Clark, William P., Elberton, Ga. Cotton-chopper.....	376,294	Jan. 10	801	212	42	163



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Clark, William R. (See Gilmore and Clark.)						
Clark, William S. (See Smith, Frank L., assignor.)						
Clarke, Alfred, and H. C. Perham, Lowell, Mass. Machine for opening and preparing fibrous substances	380,187	Mar. 27	1971	527	42	1368
Clarke, Charles L., assignor of one-fifth to C. J. Crowley, Toronto, Ontario, Canada. Tobacco-pipe	390,453	Oct. 2	356	93	45	75
Clarke, Francis E., New York, N. Y., assignor of one-half to G. B. Van Brunt, C. A. Hess, and W. J. Townsend. Mechanical telephone	386,238	July 17	1347	355	44	277
Clarke, George, Jersey City, N. J., assignor to H. G. Phillips, Wilmington, Del. Cofferdam for vessels	395,265	Dec. 25	2399	614	45	1558
Clarke, George H. (See Reilly, Owen, assignor.)						
Clarke, George H., assignor to J. S. Batterson and M. Hensel, Columbus, Ohio. Paper-cutter.	387,621	Aug. 14	651	168	44	704
Clarke, George R., Montell, Tex., assignor to A. T. Howard, Brooklyn, N. Y. Envelope-machine	392,781	Nov. 13	900	230 231	45	774
Clarke, Greville E., Racine, Wis. Nut-lock	380,188	Mar. 27	1972	527	42	1368
Clarke, Joseph. (See Goulden and Clarke.)						
Clarke, Joseph J., Brooklyn, N. Y. Lever foot and fulcrum of scale-beams	376,513	Jan. 17	1121	293	42	229
Clarke, Reuben, assignor of one-half to W. F. Munro, Toronto, Ontario, Canada. Sash-fastener	380,424	Apr. 3	171	47	43	35
Clarke, Reuben, assignor of one-half to D. McFarlane and J. G. Darling, Toronto, Ontario, Canada. Compensating spring-lever	384,610	June 19	1153	305	43	1355
Clarke, Robert, Gravesend, N. Y. Service-tank	391,402	Oct. 23	1716	457	45	352
Clarke, Robert, Gravesend, N. Y. Pipe-coupling ferrule	391,946	Oct. 30	2423	672	45	518
Clarke, Samuel, Childs Hill Works, London, county of Middlesex, England. Candle-lamp	383,861	June 5	19	6	43	1124
Clarke, Samuel, Childs Hill Works, London, county of Middlesex, England. Candle lamp and stand	383,862	June 5	19	6, 7	43	1124
Clarke, Thomas, and J. E. Conroy, Jersey City, N. J. Filter	378,431	Feb. 28	1637	430	42	837
Clarke & Walker. (See Walker, Harry, assignor.)						
Clarke, William H., Cleveland, Ohio. Jar-fastening	376,369	Jan. 10	907	237	42	182
Clark's Patent Coking and Smokeless Furnace Company. (See Clark, Gates A., assignor.)						
Clarkson, Joseph T., Amesbury, Mass. Carriage	386,963	July 31	2429	638	44	504
Clarkson, Joseph T., Amesbury, Mass. Carriage	392,854	Nov. 13	1006	258	45	796
Clarkson, William H. (See Houser and Clarkson.)						
Clarkson, William S., Glendive, Mont. Ter. Fluid-pressure regulator	378,291	Feb. 21	1434	374	42	790
Clarridge, John, Sr., Libertyville, Iowa. Car-coupling	389,687	Sept. 18	1355	355	44	1343
Clary, William A., North Fork, Tenn. Fence-machine	387,860	Aug. 14	990	258	44	770
Clason, Abraham T., et al. (See Lyon and Moore, assignors.)						
Clason, Roger W., et al. (See Reams, John V., assignor.)						
Claspy, James H., Atlanta, Ga. Automatic locking attachment for fare-boxes	382,867	May 15	1466	384 385	43	811
Class, William F., assignor to F. F. Temple and W. A. Johnson, Chicago, Ill. Vent-plug for kegs and casks	376,635	Jan. 17	1305	343	42	265
Class, William F., assignor of two-thirds to J. H. Harris and I. Bacharach, Chicago, Ill. Steam-engine	380,991	Apr. 10	1049	277	43	212
Clawson, Clement C., Newark, N. J., assignor to United States Machine and Inventions Company, New York, N. Y. Weighing and weight-printing machine	379,858	Mar. 20	1488	393 394	42	1264
Clawson, Clement C., Newark, N. J., assignor to United States Machine and Inventions Company, New York, N. Y. Machine for determining or indicating the height and weight of persons	379,859	Mar. 20	1496	394 395	42	1265
Clawson, Clement C., Newark, N. J., assignor to United States Machine and Inventions Company, New York, N. Y. Coin-controlled musical weighing and weight-printing machinery	381,338	Apr. 17	1556	420	43	320
Clawson, Clement C., Newark, N. J., assignor to United States Machine and Inventions Company, New York, N. Y. Coin-controlled weighing and weight-printing machinery	381,339	Apr. 17	1562	420 421	43	321
Clawson, Clement C., Newark, N. J., assignor to United States Machine and Inventions Company, of New York City. Machine for shaving ice	387,861	Aug. 14	992	259	44	770
Clawson, Henry T., Newark, N. J. Shelf of wire-netting for lathes	380,789	Apr. 10	737	202	43	155
Clawson, Henry T., Newark, N. J. Ice-shaving machine	391,452	Oct. 23	1787	477	45	366
Clawson, Linus P., J. A. Keller, and J. W. See, assignors to Black & Clawson Company, Hamilton, Ohio. Mechanism for transmitting motion	392,782	Nov. 13	905	232	45	775
Clay, Richard, London, England. Nut-lock	386,381	July 17	1537	406 407	44	314
Clay, William H., Waterbury, Conn. Soldering-clamp	382,550	May 8	1087	280	43	727
Claypool, Albert, Toledo, Ohio. Hinge	376,027	Jan. 3	423	112	42	85
Clayton, John, Wadena, Minn. End-gate	376,405	Jan. 10	950	249	42	190
Clayton, William C., et al. (See Keedy, John H., assignor.)						
Clearwater, G. A., et al. (See Howe, Thomas B., assignor.)						
Clearwater, George A. (See Cook, Lewis P., assignor.)						
Cleave, Moses, Cleveland, Ohio. Street-car-heating apparatus	384,126	June 5	421	117	43	1201
Cleveland, Albert H., Belvidere, Ill. Bed-bottom	384,127	June 5	421	117	43	1202
Cleveland, Elias A., Belvidere, Ill. Bed-bottom	392,009	Oct. 30	2577	701	45	536
Cleveland, John B., Indianapolis, Ind. Device for snapping medicated dust-balls	390,455	Oct. 2	359	93	45	75
Cleveland, John B., Indianapolis, Ind. Fence	392,948	Nov. 13	1129	293	45	820
Cleaver, Abner M., Petty, Ark. Animal-trap	376,142	Jan. 10	595	158	42	125
Cleek, James D., assignor of part to G. H. Griffin, W. J. Brown, J. C. Greenway, T. P. Trigg, O. Barrett, and G. V. Litchfield, Abingdon, Va. Nut-lock	394,097	Dec. 4	528	141	45	1172
Cleeve, Henry F., Lyndhurst, N. J., and J. Parker, assignors to P. Hathaway, New York, N. Y. Soda-water apparatus	394,834	Dec. 18	1706	443	45	1420
Clegg, Wesley, Bradford, England. Velocipede	389,200	Sept. 11	610	156	44	1194
Cleghorn, Andrew, Fitchburg, Mass. Machine for winding yarns from chains upon spools	387,396	Aug. 7	294	75, 76	44	628
Clemens, Frank, Lafayette, Ind. Hat and coat rack	379,152	Mar. 6	416	117	42	1044
Clement, Lewis M., Oakland, and G. C. Watriss, San Francisco, Cal. Grip for cable street-railways	391,511	Oct. 23	1863	499	45	383
Clement, Lewis M., Oakland, and G. C. Watriss, assignors to H. Root, San Francisco, Cal. Operating cable railways at switches	379,306	Mar. 13	644	175	42	1093
Clement, Nathan S., Northampton, Mass., assignor to W. B. Hale, trustee. Dovetailing-machine	388,760	Aug. 28	2576	640 641	44	1049
Clement, Nelson, Chicago, Ill. Sectional mattress	380,713	Apr. 10	613	169	43	131
Clement, Nelson, Chicago, Ill. Buckle	383,102	May 22	1837	481	43	893
Clement, Victor M. (See Bradford, Allen, assignor.)						
Clements, Knud, Chicago, Ill. Combined mangling-machine and extension-table	379,935	Mar. 27	1613	429	42	1298
Clemm, Adolph, Mannheim, Baden, Germany. Destroying insects	380,189	Mar. 27	1974		42	1368
Clemmons, James D., Hanover, Ind. Slate-cleaner	395,121	Dec. 25	2167	559	45	1517



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Clemson, George N., assignor to Wheeler, Madden & Clemson Manufacturing Company, Middletown, N. Y. Saw-handle.....	385,844	July 10	764	201	44	155
Clench, Frank B., Lockport, N. Y. Cuspidor.....	387,622	Aug. 14	652	169	44	704
Cleveland, Benjamin P. (See Dawson and Cleveland.)						
Cleveland, Charles E., and J. Hanson, Fort Wayne, Ind.; said Cleveland assignor to said Hanson. Side-dresser for saws.....	380,089	Mar. 27	1840	490	42	1342
Cleveland, Clement, New York, N. Y. Door-check.....	376,813	Jan. 24	1592	417	42	327
Cleveland Target Company. (See Damm, Fredrick C., assignor.)						
Cleveland, William B., Cleveland, Ohio. Electric switch.....	391,512	Oct. 23	1864	500	45	383
Clever, Henry H., Cleversburg, Pa. Lifting-jack.....	393,358	Nov. 27	1728	457	45	954
Cleverly, Henry A., Philadelphia, Pa. Electric gas-lighter.....	392,665	Nov. 13	723	183	45	739
Cliett, Taylor, Martindale, Tex. Cotton-picker's sack.....	391,022	Oct. 16	1190	316	45	245
Cliff, Edward, Oswego, N. Y. Bolster-spring for vehicles.....	376,857	Jan. 24	1659	433	42	338
Cliff, Edward, Rochester, N. Y. Vehicle-spring.....	379,366	Mar. 13	731	200	42	1110
Cliff, Edward, Rochester, N. Y. Vehicle-spring.....	382,137	May 1	383	100	43	583
Cliff, Edward, Rochester, N. Y. Spring-vehicle.....	386,625	July 24	1900	502	41	397
Cliff, Edward, Rochester, N. Y. Spring-vehicle.....	387,052	July 31	2544	669	41	527
Clifford, George V., New York, N. Y. Temporary binder.....	394,249	Dec. 11	760	201	45	1225
Clifford, Martin H., North Haverhill, N. H. Apparatus for heating water.....	393,819	Dec. 4	121	33	45	1095
Clifford, Patrick, and J. Coupal, Quincy, Mass. Sole-fastening wire.....	393,885	Dec. 4	226	60	45	1115
Clifford, William P., Ottumwa, assignor to D. W. Templeton, Fairfield, and Western Machine Works, Ottumwa, Iowa. Grain-cleaning cylinder.....	383,627	May 29	2611	690	43	1048
Clifford, William P., Ottumwa, assignor to D. W. Templeton, Fairfield, and Western Machine Works, Ottumwa, Iowa. Oat-extractor for grain-separators.....	392,783	Nov. 13	907	232	45	775
Clifton, Clifton W., Princeton, N. J. Attachment for trunks.....	388,634	Aug. 28	2196	590	44	1015
Climax Manufacturing Company. (See Betts, Charles L., assignor.)						
Cline, N. Bayard, Green Cove Springs, Fla. Child's carriage.....	379,207	Mar. 13	505	142	42	1067
Cline, George J., Goshen, Ind. Sash-fastener.....	377,990	Feb. 14	976	254	42	698
Cline, George J., Goshen, Ind. Fence-weaving machine.....	379,100	Mar. 6	351	100	42	1032
Cline, George J., Goshen, Ind. Cuff-holder.....	386,382	July 17	1538	407	44	314
Cline, George J., Goshen, Ind. Barrel-cover.....	393,212	Nov. 20	1510	395	45	903
Cline, John B., Jefferson, Iowa. Book-support.....	385,445	July 3	168	45, 46	44	34
Clingman, Thomas L., Asheville, N. C. Electric-light carbon.....	381,634	Apr. 24	1981	.....	43	421
Clinton Wire Cloth Company. (See Searles, Benjamin, assignor.)						
Cliver, David L., et al. (See Walters, Almer B., assignor.)						
Close, G. Alburtns, Bridgeport, Conn. Corset.....	384,307	June 12	698	186	43	1263
Close, G. Albertus, Bridgeport, Conn., assignor to C. H. Langdon, Elizabeth, N. J., and G. C. Batcheller, New York, N. Y. Corset.....	387,578	Aug. 7	588	154	44	685
Close, Henry M., Beaver Falls, Pa. Pump.....	384,678	June 19	1253	329	43	1376
Close, Henry M., Beaver Falls, Pa. Pump.....	384,679	June 19	1255	330	43	1376
Close, Philipp C., Augusta, Ga. Sewage and night-soil desiccating apparatus.....	380,383	Apr. 3	118	34	43	25
Clot, John B., San Francisco, Cal. Street and station indicator for railway-cars.....	380,090	Mar. 27	1841	490	42	1342
Cloud, James M., et al. (See Blake, John L., assignor.)						
Cloud, William F., Topeka, Kans. Spectacle-case.....	379,936	Mar. 27	1614	430	42	1298
Clondman, Francis A. (See Warren and Clondman.)						
Clondman, Francis A., Cumberland Mills, Me., assignor to S. D. Warren & Company, Boston, Mass. Knotter.....	392,719	Nov. 13	796	203	45	755
Clough, George A., Jr. (See Cree and Clough.)						
Clough, Joseph, Pawtucket, R. I. Sash-holder.....	392,410	Nov. 6	349	86	45	660
Clough, Theodore, Dobb's Ferry, N. Y. Gate-spring.....	378,191	Feb. 21	1268	335	42	760
Clouse, Joseph N., Toledo, Ohio. Adjustable cuff-holder.....	375,731	Jan. 3	14	4	42	6
Clouse, Joseph N., assignor to U. Riedy, H. R. Wade, and A. L. Just, Toledo, Ohio. Adjustable cuff-holder.....	386,001	July 10	983	262	44	201
Cloves, Benjamin H., New York, N. Y. Trousers-stretcher.....	380,550	Apr. 3	370	105	43	76
Cloyes, James H., Kalamazoo, Mich. Carriage-back.....	393,213	Nov. 20	1511	395	45	903
Cloyes, James H., assignor to Des Moines Buggy Company, Des Moines, Iowa. Two-wheeled vehicle.....	377,849	Feb. 14	773	198	42	657
Cloyes, James H., and E. B. Gray, Kalamazoo, Mich., assignors to Des Moines Buggy Company, Des Moines, Iowa. Two-wheeled vehicle.....	377,848	Feb. 14	773	197	42	657
Cluett, Bro. & Co., George B. (See Dean, Charles S., assignor.)						
Clune, Michael, Indianapolis, Ind. Bed-lounge.....	394,957	Dec. 25	1912	494	45	1468
Clute, Adam E., West Troy, N. Y. Chimney-cap.....	394,337	Dec. 11	902	237	45	1254
Clute, Charles E., Cohoes, N. Y. Cutting-off device for paper-box-covering machines.....	393,964	Dec. 4	336	91	45	1136
Clute, Nicholas J., Schenectady, N. Y. Electro-magnetic brake.....	376,769	Jan. 17	1419	373	42	286
Clothe, Charles, Toronto, Ontario, Canada. Truss.....	384,611	June 19	1153	305	43	1356
Cluxton, James R., Xenia, Ohio. Wash-board-making machine.....	377,236	Jan. 31	2186	577	42	450
Cluxton, James R., Xenia, Ohio. Wash-board.....	382,512	May 8	960	243	43	702
Cluxton, James R., Xenia, Ohio. Pillow.....	391,300	Oct. 16	1576	418	45	316
Clyde, John J., Jr. (See Kaylor, Mark B., assignor.)						
Clyne, James B., assignor to White Sewing Machine Company, Cleveland, Ohio. Metal-screw machine.....	376,942	Jan. 24	1771	465	42	961
Clynorth, William C. (See Cypert, Joseph A., assignor.)						
Coad, Theophilus, Forest Gate, county of Essex, England. Incandescent-lamp socket.....	392,666	Nov. 13	724	183	45	739
Coady, Thomas, New York, N. Y. Stirrup.....	382,690	May 15	1239	323	43	765
Coas, Edward K., Providence, R. I., assignor to Providence Cylinder Company, Nashua, N. H. Manufacture of sheet-metal tubes.....	378,769	Feb. 28	2113	558	42	931
Coas, Edward K., Providence, R. I., assignor to Providence Cylinder Company, Nashua, N. H. Sheet-metal tube.....	379,937	Mar. 27	1615	430	42	1298
Coates, Abraham, Watertown, N. Y. Combined reel-handle and fishing-reel.....	379,683	Mar. 20	1209	320	42	1210
Coates, Benjamin J., Erie, Pa. Machine for turning cross-head pins.....	376,235	Jan. 10	724	193	42	148
Coates, James J., Moberly, Mo. Car-brake.....	388,262	Aug. 21	1659	442	44	907
Coates, James W., South Bend, Ind. Two-wheeled vehicle.....	394,060	Dec. 4	479	128	45	1163
Coates, James W., South Bend, Ind. Two-wheeled vehicle.....	394,061	Dec. 4	480	128	45	1163
Coates, Joseph H. (See Potts, Joseph C., assignor.)						
Coats, Leroy. (See Umbenhaur, Richard H., assignor.)						
Cobb, Charles G., et al. (See Cobb, Lucius J., assignor.)						
Cobb, George M., Philadelphia, Pa. Sawing attachment for shapers.....	394,338	Dec. 11	904	238	45	1254
Cobb, John J., Grand Rapids, Mich. Sleigh-knee.....	384,128	June 5	422	117	43	1202
Cobb, Lucius J., assignor to himself, S. K. Dow, and C. G. Cobb, Chicago, Ill. Refrigerator-can.....	380,769	July 24	2103	552	44	434

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Cobb, Rollin A., <i>et al.</i> (See Winfield, William C., assignor.)						
Cobb, Thomas H., and C. L. Bowen, Wolf Creek, Ark. Mercantile boot and shoe box fixture	376,070	Jan. 10	485	131	42	104
Cobb, Thomas M., Grand Rapids, Mich. Bee-hive	388,761	Aug. 28	2381	642	44	1050
Cobb, Willard B., Decatur, Mich. Sulky attachment for plows	373,868	Jan. 3	185	51	42	40
Cobb, William H. M., <i>et al.</i> (See Gould, George F., assignor.)						
Cobb, William S., Philadelphia, Pa. Tool-post ring	385,845	July 10	765	201	44	156
Coblentz, Jean B., <i>et al.</i> (See Schmitt, Johann, assignor.)						
Coburn, Edward B., Walpole, Mass. Automatic governor for dynamos	392,855	Nov. 13	1007	258	45	797
Coburn, John A., Springfield, Mass., assignor to J. C. Dueber, Newport, Ky. Engraving and chasing machine	381,214	Apr. 17	1379	369	43	284
Coburn, Lemuel, Holyoke, Mass. Machine for bending sheet metal	390,346	Oct. 2	208	55	45	44
Cochennour, John S., Olney, Ill. Vehicle-spring support	381,111	Apr. 17	1248	335	43	259
Cochran, Alfred W., Washington, D. C. Cartridge	387,493	Aug. 7	433	113	44	657
Cochran, Harry B. (See Wollin and Werline, assignors.)						
Cochran, Isaac E., Jr. (See Packer and Cochran.)						
Cochran, James, Custer City, Dak. Ter. Paper-bag holder	386,964	July 31	2429	638	44	504
Cochran, James S. (See Weatherhead and Cochran.)						
Cochran, Josephine G., Shelbyville, Ill., and J. Kritch, Cleveland, Ohio; said Kritch assignor to said Cochran. Dish-washing machine	391,782	Oct. 30	2236	608 609	45	469
Cochran, Loyal Y., Allegheny City, Pa., and W. I. Lindsay, Cleveland, Ohio. Furnace fuel-feeder. (Reissue)	10,942	July 10	1136	301	41	230
Cochran, Loyal Y., Allegheny, Pa., and W. J. Lindsay, Cleveland, Ohio. Furnace fuel-feeder	391,301	Oct. 16	1577	418	45	318
Cochran, Samuel H., Everett, Mass. Separating metals from their ores	378,868	Mar. 6	11	4	42	969
Cochrane, William N., assignor of one-half to W. E. Stronach, Charlestown, Mass. Wash-bench	378,921	Mar. 6	85	24	42	983
Cocker, William, and C. S. Hurst, Lockport, N. Y. Insertible tooth for circular saws	388,950	Sept. 4	215	57	44	1113
Cockfield, Joseph, and C. D. Higgins, Boone, Iowa. Metallic packing for piston and valve rods	389,288	Sept. 11	759	192	44	1225
Cockings, Thomas G., and J. J. Mulvaney, Jr.; said Cockings assignor to A. Knop, Riverside, Ohio. Scholar's companion	387,210	Aug. 7	21	4	44	576
Cockrell, Allin, Lamar, Mo. Lightning-escape for wire fences	385,093	June 26	1889	482	43	1509
Cocks, Jack, Larimore, Dak. Ter. Lock and latch	390,205	Oct. 2	13	4	45	6
Coddington, Frank J., and M. Popp, Chicago, Ill. Safety-gate for bridges	388,833	Sept. 4	35	11	44	1079
Coddington, James R., Geneseo, N. Y. Cabinet for holding account-ships	385,341	July 3	6	2,3	44	4
Codling, Robert B., Bristol, Conn. Turning-machine	379,307	Mar. 13	646	175 176	42	1094
Codling, Robert B., Bristol, Conn. Manufacturing caster-rollers	380,790	Apr. 10	738	202	43	155
Coe, Henry H., Painesville, Ohio. Rotary-cutting veneer-machine	384,129	June 5	423	117 118	43	1202
Coen, Charles M. (See McIntyre, Byron F., assignor.)						
Coes, Frederic L. (See Coes, John H. and F. L.)						
Coes, John H. and F. L., Worcester, Mass. Wrench	382,138	May 1	384	100	43	583
Coes, Loring, assignor to Coes Wrench Company, Worcester, Mass. Machine for forming screw-blanks for wrenches	393,618	Nov. 27	2127	556	45	1034
Coes Wrench Company. (See Coes, Loring, assignor.)						
Coes, Zoraster B., Hamilton, Ohio. Negative-washing tray	389,201	Sept. 11	612	156	44	1195
Coffey, Burton B., Carrollton, Mo. Fastening for gates	390,569	Oct. 2	526	138	45	106
Coffey, Henry R., Stockton, Cal. Fare-register	384,425	June 12	875	228	43	1296
Coffield, Peter T., Now Carlisle, assignor of one-half to R. H. Rodgers, Springfield, Ohio. Grinding-mill	391,689	Oct. 23	2098	568 569	45	431
Coffin, Charles E., assignor of one-half to R. N. Jones, Denver, Colo. Composition of matter for paving-blocks, &c	383,942	June 5	151		43	1149
Coffin, Edward W., Ashland, N. J. Apparatus for aerating and cooling milk	379,051	Mar. 6	278	81	42	1018
Coffin, John, Johnstown, Pa. Apparatus to illustrate centrifugal force	388,476	Aug. 28	1975	530	44	973
Coffin, John, assignor to Cambria Iron Company, Johnstown, Pa. Apparatus for toughening steel rails	378,083	Feb. 21	1107	290	42	731
Coffin, John, assignor to Cambria Iron Company, Johnstown, Pa. Toughening steel rails or bars	390,206	Oct. 2	14	5	45	6
Coffin, John, assignor to Cambria Iron Company, Johnstown, Pa. Toughening axles	391,120	Oct. 16	1324	353	45	270
Coffin, Joseph R. (See Coffin, William B. and J. R.)						
Coffin, Judson H., <i>et al.</i> (See Harkins, Daniel, assignor.)						
Coffin, Susan F. (See Coffin, William B. and J. R., assignors.)						
Coffin, William B. and J. R.; said W. B. Coffin assignor to S. F. Coffin, Bliss, Nebr. Well-sinking machine	395,034	Dec. 25	2024	522	45	1489
Coffinberry, John B. (See Farrand, George A., assignor.)						
Coffman, George, assignor to himself, P. J. Upp, and W. A. Reid, Spearville, Kans. Harrow	379,003	Mar. 6	209	57	42	1006
Cogle, W. J., <i>et al.</i> (See Seiser, Hill, and Nuttall, assignors.)						
Cogley, Andrew J., and J. S. Kendig, Lancaster, Pa. Signal-lantern	393,460	Nov. 27	1873	493	45	982
Cohen, Abraham, <i>et al.</i> (See Wolff, Henry F., assignor.)						
Cohen, Josiah. (See Bernstein and Goldstein, assignors.)						
Cohen, Louis P. (See Herrmann and Cohen.)						
Cohen, Max, New York, N. Y. Coat	388,123	Aug. 21	1442	386	44	864
Cohen, Solomon L., New York, N. Y. Door-mat	378,356	Feb. 21	1524	398	42	809
Cohen, Stanley A., New York, N. Y. Book-lock	392,411	Nov. 6	350	86	45	660
Cohen, Wolf, New York, N. Y. Making coats	385,096	June 26	1889	482	43	1509
Cohn, Isidor, assignor to R. Cohn, New York, N. Y. Photographic sheet	375,297	June 26	2197		43	1570
Cohn, Joseph, New York, N. Y. Locket	384,426	June 12	877	228	43	1296
Cohn, Rebecca. (See Cohn, Isidor, assignor.)						
Cohnen, Frank, Detroit, Mich. Machine for picking husks, &c	377,095	Jan. 31	2001	524	42	412
Cohon, Ross, Crawfordsville, Ind. Wheel-cultivator	386,108	July 17	1144	304	44	238
Cointe, Aristide J., Green Bay, Wis. Wire gate	383,705	May 29	2721	718	43	1072
Coke, Levi, Elmira, N. Y. Oven	382,073	May 1	298	78	43	568
Coker, Edward R., <i>et al.</i> (See Waterman, Henry, assignor.)						
Coker, William H., Macon, Ga. Iron fence	383,343	May 22	2178	576	43	958
Colburn, Charles H. (See Daggett, John C., assignor.)						
Colby, Edward A., New Haven, Conn. Combined incandescent-electric-lamp socket and electrical converter	376,583	Jan. 17	1209	320	42	248
Colby, Edward J., Chicago, Ill. Ventilator	381,112	Apr. 17	1249	335	43	260
Colby, Edward J., Chicago, Ill. Electric alarm-clock	383,439	May 29	2331	619	43	992
Colby, Edward J., Chicago, Ill. Ink-well	383,514	May 29	2451	650	43	1014

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Colby, Edward J., Chicago, Ill. Milk-box.....	388,121	Aug. 21	1413	387	44	864
Colby, Edward J., Chicago, Ill., assignor to Colby Testing Machine Company. Coin-controlled machine for weighing, lifting, lung-testing, and height-measuring.....	391,513	Oct. 23	1866	501	45	383
Colby, George F., Shelby, Iowa. Wagon-pole attachment.....	387,397	Aug. 7	296	76	44	629
Colby, Gilbert A., assignor, by mesne assignments, to M. C. Armour, Chicago, Ill. Steam-boiler feeder.....	387,553	Aug. 7	538	140	44	676
Colby, Gilbert A., assignor, by mesne assignments, to M. C. Armour, Chicago, Ill. Steam-boiler.....	391,583	Oct. 23	1960	529	45	403
Colby Testing Machine Company. (See Colby, Edward J., assignor.)						
Colby, William M. (See Ackerman, Emma M., assignor.)						
Coldren, William P., Philadelphia, Pa. Sash-fastener.....	388,762	Aug. 28	2382	613	44	1050
Coldwater Road Cart Company. (See O'Brien, Thomas, assignor.)						
Coldwell, George H., Rockton, Pa. Gate for splash-dams.....	392,499	Nov. 6	474	119	45	685
Cole, Albert F. (See Cole, Henry W. and A. F.)						
Cole, Albion P., Waltham, assignor to J. W. Smith, Boston, Mass. Eye-protector.....	387,709	Aug. 14	779	199	44	728
Cole, Cary O., Oskaloosa, Iowa. Cigar-seller.....	390,841	Oct. 9	899	238	45	183
Cole, Charles, and J. S. Pihlstrom, Chicago, Ill. Hydrocarbon-burner.....	387,053	July 31	2546	669	44	527
Cole, Charles E., Somerville, N. J. Device for weighing and sacking grain.....	377,513	Feb. 7	255	63	42	543
Cole, Cyrus C., Albion, Mich. Harness.....	392,784	Nov. 13	908	232	45	775
Cole, Everett L., Chicago, Ill. Reclaiming oil from the products and waste of machine-shops.....	389,058	Sept. 4	367	96	44	1142
Cole, Frederick W. (See Smith, Alson A., assignor.)						
Cole, Frederick W.; Newton, Mass., assignor to Gamewell Fire Alarm Telegraph Company, New York, N. Y. Non-interfering signal-box.....	380,022	Mar. 27	1745	467	42	1322
Cole, George H., Atlanta, Ga. Plug-switch for telephone and telegraph circuits.....	377,237	Jan. 31	2193	578	42	451
Cole, Henry W. and A. F., Stourport, county of Worcester, England. Gas and other fluid pressure controlling apparatus.....	376,636	Jan. 17	1309	344	42	265
Cole, John C., Brents, Wash. Ter. Churn.....	385,696	July 10	544	142	44	114
Cole, Philip J., et al. (See Allen, Walter J., assignor.)						
Cole, Robert B., Palmersville, Tenn. Muzzle.....	381,615	Apr. 24	1982	520	43	421
Cole, Robert L., Smith's Grove, Ky. Fender for plows.....	392,991	Nov. 20	1211	314	45	842
Cole, Seymour S., Aurora, Ind. Blotting-device or pad.....	393,359	Nov. 27	1729	458	45	954
Cole, Warren, Jr., Keokuk, Iowa. Axle-lubricator.....	382,458	May 8	878	224	43	685
Cole, Warren, Jr., Knoxville, Tenn. Axle-lubricator.....	392,906	Nov. 13	1071	277	45	809
Cole, Wesley, Chicago, Ill. Bolster-spring.....	391,023	Oct. 16	1191	316	45	245
Cole, William E., Montgomery, Ala. Brick-drier.....	378,236	Feb. 21	1351	356	42	776
Cole, William E., Montgomery, Ala. Brick-drier.....	378,237	Feb. 21	1351	356	42	776
Cole, William J. (See Blood and Cole.)						
Cole, William R. (See Parrish and Cole.)						
Cole, William R., assignor to Parrish Bros. and Peck Electrical Company, Detroit, Mich. Electric-circuit breaker.....	376,071	Jan. 10	486	131	42	104
Cole, William R., assignor to Parrish Bros. and Peck Electrical Company, Detroit, Mich. Electrical circuit-breaker.....	376,072	Jan. 10	488	132	42	105
Cole, William R., assignor to himself, F. G. Smith, and G. W. Moore, trustees, Detroit, Mich. Telephone-transmitter.....	386,965	July 31	2430	638	44	505
Cole, William T. (See Shipley, John F., assignor.)						
Coleman, Arnold D., assignor of one half to M. Cudahy, Chicago, Ill. Can-soldering machine.....	384,825	June 19	1475	385 386	43	1418
Coleman, Clyde J., Gideon, Kans. Button-machine.....	394,676	Dec. 18	1434	374 375 377	45	1365
Coleman, John A., Providence, R. I. Grinding-machine.....	376,814	Jan. 24	1593	417 418 419	42	327
Coleman, John A., Providence, R. I. Grinding-machine.....	376,815	Jan. 24	1597	418 419	42	327
Coleman, John E., Cabot Station, Ark. Plow.....	392,992	Nov. 20	1211	315	45	843
Coleman, Michael P., Boston, Mass. Lubricator.....	380,023	Mar. 27	1748	467	42	1323
Coleman, Michael P., Boston, Mass. Gas-fixture.....	392,993	Nov. 20	1212	315	45	843
Coleman, Michael P., Boston, Mass. Horse-carriage.....	394,556	Dec. 18	1226	320	45	1327
Coleman, Robert H., Cornwall, Ia. Promoting combustion and extinguishing sparks.....	387,623	Aug. 14	653	169	44	704
Coleman, Robert H., Cornwall, Pa. Spark-arrester.....	387,624	Aug. 14	655	169	44	705
Coleman, Robert H., Cornwall, Pa. Spark-arrester.....	387,625	Aug. 14	656	169	44	705
Coleman, William H., New York, N. Y. Apparatus for heating air, steam, &c.....	393,540	Nov. 27	2012	526	45	1011
Coleman, William H., assignor to J. & M. Wolff & Coleman, Chicago, Ill. Lumber-truck.....	394,459	Dec. 11	1071	278	45	1284
Coles, Henry J. (See Turner, Simeon, assignor.)						
Coles, John E., New York, N. Y. Bag-holder.....	389,718	Sept. 18	1435	375	44	1359
Coles, John E., Canarsie, N. Y. Twine-holder.....	393,619	Nov. 27	2129	557	45	1034
Colladay, Stephen B., et al. (See Forrest, William W., assignor.)						
Collard, Arthur W. H., Pittsburg, Pa. Rolls for iron-rolling mills.....	381,308	June 12	700	186	43	1264
Collar, Isaac H., Poughkeepsie, N. Y. Weight-motor.....	377,929	Feb. 14	888	229	42	680
Colles, Edward G. T., Chicago, Ill. Feed-water purifier.....	378,495	Feb. 28	1732	457	42	858
Collett, Europe N., Whelen Springs, Ark. Reversing-gear for saw-mills.....	381,215	Apr. 17	1382	369	43	285
Colley, Frederick, Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Rolls for rolling overhanging slot-rails.....	387,147	July 31	2700	707 708	44	552
Colley, Frederick, Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Rolls for rolling angle-shaped slot-rails.....	387,148	July 31	2701	708	44	552
Collier, Charles L., Howell, Mich. Railway-velocipede.....	376,073	Jan. 10	488	132	42	105
Colling, Simeon, Oakland, Cal. Battery-cell for electric belts.....	394,958	Dec. 25	1913	495	45	1468
Collingwood, Daniel F. and J. A., Pretty Prairie, Kans. Device for watering hogs and other animals.....	377,016	Jan. 31	1879	494	42	389
Collingwood, James A. (See Collingwood, Daniel F. and J. A.)						
Collins, Bernard A. (See O'Kelly and Collins.)						
Collins, Charles M., South Bend, Ind. Sprinkler.....	381,986	May 1	141	33 34	43	541
Collins Company. (See Chapman, Luke, assignor.)						
Collins, Edward G., Kencsaw, Nebr. Combined hand-truck and weighing-scale.....	391,453	Oct. 23	1788	477 478 479	45	366
Collins, Eli, Little Rock, Ark. Car-heater.....	390,649	Oct. 9	628	167 168 169	45	133
Collins, James, Crawfordsville, Ind. Wood-joint.....	376,236	Jan. 10	725	193	42	149
Collins, James I., Amsterdam, N. Y. Steam-coupling for railway-cars.....	383,628	May 29	2612	691	43	1018
Collins, James W., Centre Montville, Me. Horse hay-fork.....	379,448	Mar. 13	845	228	42	1133
Collins, John, San Francisco, Cal. Splicing cables.....	386,690	July 21	1991	526 527	44	413

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.-g.	Vol.	Page.
Collins, John K. (See Logan and Culley, assignors.)						
Collins, Joseph F., <i>et al.</i> (See Penoyer, Hiram, assignor.)						
Collins, Kate J., New York, N. Y. Paper box .....	380,861	Apr. 10	837	227	43	173
Collins Manufacturing Company. (See Jewett, Charles W. and G. H., assignors.)						
Collins, Robert F., Manchester, Ohio. Churn .....	378,770	Feb. 28	2114	558	42	931
Collins, W. Forman, New York, N. Y. Dynamo-electric machinery .....	393,742	Dec. 4	9	3	45	1074
Collins, Willard C., Bucksport, Me. Voltaic plaster .....	393,741	Dec. 4	8	3	45	1074
Collins, William G., Orange, N. J. Pen-extractor .....	386,455	July 24	1661	438 439 492 493	44	351
Collins, William H., Chicago, Ill., assignor of one-half to J. Kirkner, New York, N. Y., and R. Bines, Chicago, Ill. Telephone-receiver .....	381,531	Apr. 24	1863	439	43	397
Collins, William H., Chicago, Ill., assignor of one-half to J. Kirkner, New York, N. Y., and R. Bines, Chicago, Ill. Telephone-transmitter .....	391,356	Oct. 16	1648	436	45	331
Collyer, Charles W., Harrisburg, Pa. Apparatus for administering medicine to animals ..	383,440	May 29	2332	619	43	992
Colony, John S., <i>et al.</i> (See Bentley, Solomon P., assignor.)						
Colony, Charles W., Sandy Creek, N. Y., assignor to Steam Gauge and Lantern Company, Rochester, and R. E. Dietz Company, New York, N. Y. Lantern. (Reissue) .....	10,911	Mar. 20	1589	419	42	1283
Colorado Iron Works. (See Nesmith, John W., assignor.)						
Colt, Caldwell H. (See Day and Colt.)						
Colt, Emma S., Kansas City, Mo. Dust-pan .....	380,551	Apr. 3	371	106	43	76
Colt, Leander, Suspension Bridge, N. Y. Current water-wheel .....	388,531	Aug. 28	2048	551	44	987
Colt's Patent Fire Arms Manufacturing Company. (See Ehbets, Carl J., assignor.)						
Colt's Patent Fire Arms Manufacturing Company. (See Thomson, John, assignor.)						
Columbia Rubber Company. (See Smith, Friend W., Jr., assignor.)						
Colvin, Benoni, assignor to Freeport Hardware Manufacturing Company, Freeport, Ill. Spring-hinge .....	395,266	Dec. 25	2406	615	45	1559
Colvin, Benoni, and J. Wolfley, Freeport, Ill., said Wolfley assignor to Luc Adjustable Spring Hinge Company, Port Washington, Wis. Spring-hinge .....	375,803	Jan. 3	108	31	42	25
Colvin, Oscar, Buchanan, Mich. Windmill-regulator .....	379,052	Mar. 6	279	81	42	1018
Colwell, Peter E., Jr., <i>et al.</i> (See Reece, Tolbert J., assignor.)						
Colwell, Walter E., Cincinnati, Ohio. Rectifying-column for the distillation of liquids and gases .....	385,504	July 3	258	65, 66	44	52
Combination Power Punch and Eycleting Machine Company. (See Hawkins and Paige, assignors.)						
Combined Electric and Trip Bell Cord Company. (See Glasgow and Stevens, assignors.)						
Comer, E. T. (See Guilmarin, John F., assignor.)						
Comey, Willard, Westborough, assignor to Improved Sole Sewing Machine Company, Boston, Mass. Shoe-sewing machine .....	379,059	Sept. 4	369	96	44	1143
Comly, Eli B. (See Motherwell and Comly.)						
Comly, Eli B., and D. Motherwell, Logan, Ohio. Cultivator .....	384,021	June 5	263	75	43	1172
Commander, Miles, assignor to himself and C. Jones, Greensborough, Ala. Hame-tug .....	377,709	Feb. 7	540	138	42	596
Commercial Overseaming Sewing Machine and Manufacturing Company. (See Lachman, Morris, assignor.)						
Compagnie Anonyme des Forges de Chatillon et Commentry. (See Evrard, Alfred, assignor.)						
Compagnie de Fives-Lille. (See Duval, Martin L. E., assignor.)						
Complete Combustion Company of Portland, Maine. (See Post and Sawyer, assignors.)						
Composite Cell Company. (See Meyer, Frederick A., assignor.)						
Comstock, Asa M. (See Spruce and Comstock.)						
Comstock, Benjamin F. and J. F. Canton, Ill. Belt-rest .....	389,688	Sept. 18	1356	356	44	1343
Comstock, Charles M., Windsor, N. Y. Whip-core .....	393,691	Nov. 27	2235	586	45	1056
Comstock, Henry W., Lafayette, Ind. Bag-fastener .....	384,130	June 5	425	118	43	1203
Comstock, James F. (See Comstock, Benjamin F. and J. F.)						
Comstock, John B., New Orleans, La. Grinding-machine .....	377,883	Feb. 14	823	210	42	666
Comstock, William H., Oskaloosa, Iowa. Bottle-filler .....	384,032	June 5	264	75	43	1172
Conant, Ezekiah, Pawtucket, R. I. Speed-indicator .....	388,532	Aug. 28	2050	551	44	987
Conant, Richard O., and H. R. Stickney, Portland, Me. Machine for silking corn .....	329,442	Sept. 11	979	262	44	1267
Conant, Thomas P., New York, N. Y., assignor to Electrical Accumulator Company, of New York. Electrical distribution by secondary batteries .....	389,638	Sept. 18	1278	337	44	1327
Conant, Thomas P., New York, N. Y., assignor to Electrical Accumulator Company, of New York. Distribution of electricity by secondary batteries .....	394,642	Dec. 18	1377	360	45	1354
Conant, Thomas P., Brooklyn, N. Y., and Z. Latschaw, McKeesport, Pa., assignors to Electrical Accumulator Company, of New York. System of electrical distribution .....	378,432	Feb. 28	1638	431	42	837
Conaty, James H., West Haven, Conn. Clasp .....	382,074	May 1	299	79	43	568
Conde, Alonzo B., Albany, N. Y. Culinary vessel .....	383,943	June 5	152	45	43	1149
Condell, John, New York, N. Y. Folding bed .....	379,449	Mar. 13	846	228	42	1133
Coudell, John, New York, N. Y. Shoe .....	380,552	Apr. 3	372	106	43	76
Condict, G. Herbert, Philadelphia, Pa., assignor to Electric Car Company of America, of Pennsylvania. Electric railway .....	384,562	June 12	1081	283	43	1334
Condict, G. Herbert, Philadelphia, Pa., assignor to Electric Car Company of America, of Pennsylvania. Electric railway .....	385,097	June 26	1890	483	43	1500
Condict, George H., Philadelphia, Pa., assignor to Electric Car Company of America, of Pennsylvania. Switch for electric motors .....	393,323	Nov. 20	1673	442	45	935
Condit, Ezekiel C., Kansas City, Mo. Dry closet .....	388,951	Sept. 4	216	57, 58	44	1114
Condon, Henson C., Rochester, Ind., assignor to C. G. and W. J. Shepard, Buffalo, N. Y. Ice-cream freezer .....	390,002	Sept. 25	1826	484	44	1444
Condon, John W. C. G. Shepard, and P. Adams; said Condon and Adams assignors to W. J. Shepard, Buffalo, N. Y. Domestic hand-press .....	385,165	June 26	1986	509	43	1528
Coue, Ernest G., East Hampton, Conn. Thread-holder for spools .....	376,858	Jan. 24	1660	433	42	339
Coue, Ernest G., East Hampton, Conn. Foot-rest for radiators .....	392,588	Nov. 13	610	153	45	718
Cone, Henry D., Stockbridge, Mass. Wrench .....	376,584	Jan. 17	1212	3 0	42	248
Cone, Henry D., Stockbridge, Mass. Device for fastening railway-rails to their ties .....	377,191	Jan. 31	2116	559	42	437
Cone, John, Marquette, Mich. Hydraulic elevator .....	376,859	Jan. 24	1661	434	42	339
Cone, Jonathan, Philadelphia, Pa. Furnace-grate .....	380,312	Apr. 3	9	2	43	4
Conestoga Cigar Company. (See Abraham and Martin, assignors.)						
Conger, George H. (See Roswell and Conger.)						
Conger, Milton M., Linneus, Mo. Road-vehicle .....	388,763	Aug. 28	2382	643	44	1050
Conklin, Charles A., Adrian, Mich. Coffin-fastener .....	386,691	July 24	1993	527	44	414
Conklin, Edward R., Wauseon, Ohio. Cultivator .....	384,347	June 12	765	200	43	1274
Coukling, Gurdon, Glens Falls, N. Y. Magnetic separator .....	383,863	June 5	20	7	43	1124
Conkling, Gurdon, Glens Falls, N. Y. Machine for reducing ores and other materials .....	385,596	July 3	398	102	44	78
Conkling, Gurdon, Glens Falls, N. Y. Treating iron ore .....	387,554	Aug. 7	541	44	44	676
Conkling, Henry W., Burlington, Kans. Device for watering live stock .....	389,546	Sept. 18	1130	297	44	1301

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Conley, Joseph F., Rockford, Ill. Bicycle-support.....	378,496	Feb. 28	1734	{ 457 458	42	858
Conley, Michael R. (See Hersey and Conley.)						
Conley, Thomas H., Ware, Mass. Spinning-mule.....	382,139	May 1	385	100	43	584
Conlon, Nicholas, Lake, Ill. Treating crude animal hair.....	387,579	Aug. 7	589		44	685
Connee, John. (See Lloyd, Marshall B., assignor.)						
Conn, Andrew H., Blairstown, Iowa. Caster for stoves, &c.....	385,240	June 26	2099	538	43	1552
Conn, Charles G. (See Gronert and Conn.)						
Conn, Charles G., Elkhart, Ind. Wind-instrument.....	378,771	Feb. 28	2115	558	42	931
Conn, John H., assignor of one-half to O. C. Pugh, Englewood, Ill. Awning for car-plat- forms.....	375,732	Jan. 3	15	4	42	6
Conn, John H., Englewood, and O. C. Pugh, Chicago, Ill. Car-coupling.....	386,915	July 31	2361	620	44	490
Connable, Ralph, Potoskey, Mich. Freezing pan or tray for fish, &c.....	386,383	July 17	1539	408	44	314
Connell, Charles C., Haydenville, Mass. Cook for fire-extinguishers.....	384,745	June 19	1352	353	43	1394
Connell, David, Wilmington, Del. Car-heater.....	379,101	Mar. 6	353	100	42	1032
Connell, John, Rochester, N. Y. Planing-machine.....	387,211	Aug. 7	21	4	44	576
Connell, John, Rochester, N. Y. Hoop-machine.....	390,207	Oct. 2	17	5, 6	45	6
Connell, John P., Kensington, Conn. Call-bell.....	385,166	June 26	1988	509	43	1529
Connell, John P., Kensington, Conn. Gong-bell.....	386,298	July 17	1428	377	44	292
Connell, Lewis W., Juliet, Ill. Stay for wire fences.....	386,770	July 24	2105	553	44	434
Connell, William J., Charleston, W. Va. Window-screen.....	377,991	Feb. 14	977	255	42	698
Connolly, James T., Huntington, W. Va. Tubular drill-guide.....	386,739	July 24	2060	543	44	426
Connolly, John S., et al. (See Wiedling, Carl T. A. H., assignor.)						
Connolly, Patrick J., New Bedford, Mass. Feeding a card.....	390,947	Oct. 9	1048	277	45	212
Connolly, Thomas E., et al. (See Wiedling, Carl T. A. H., assignor.)						
Connolly, William A., Boston, assignor of one-half to J. Buckley, South Boston, Mass. Au- tomatic electric heat-regulator.....	391,783	Oct. 30	2229	609	45	469
Conner, Fletcher M., Richmond, Va. Clothes-clamp for beds.....	395,035	Dec. 25	2026	522	45	1490
Conner, Mathias M., assignor of one-half to W. H. Conner, Ada, Ohio. Two-wheeled vehicle.....	388,834	Sept. 4	36	11	44	1079
Conner, Joseph, New York, N. Y. Bottle-stopper.....	382,459	May 8	879	224	43	685
Conner, Joseph, New York, N. Y. Syrup-jug.....	381,680	June 19	1257	330	43	1376
Conner, Thomas W., Orangeville, Pa. Animal-trap.....	386,299	July 17	1429	377	44	292
Conner, William A., Lincoln, Neb. Corn-harvester.....	387,862	Aug. 14	993	254	44	771
Conner, William A., Pittsburg, Pa. Electrical conductor.....	388,477	Aug. 28	1976	530	44	973
Conner, William H. (See Conner, Mathias M., assignor.)						
Connett, Elma E., assignor to J. F. Myers, Peoria, Ill. Fabric-turfing implement.....	377,192	Jan. 31	2117	559	42	437
Connett, Matthew F., Jr., Peoria, Ill. Hand fence-machine.....	376,514	Jan. 17	1122	293	42	229
Connett, Matthew F., Jr., assignor, by mesne assignments, to Star Fence Machine Com- pany, Peoria, Ill. Combined wire stretcher and tension.....	381,462	Apr. 17	1752	468	43	357
Connett, Matthew F., assignor of three-fourths to F. H. Smith, Peoria, Ill., A. Brown and W. H. Smith, Buffalo, N. Y. Car-mover.....	389,689	Sept. 18	1357	356	44	1343
Connolly, Anthony A. (See Connolly, Thomas A. and A. A.)						
Connolly, Charles, Holyoke, Mass. Glove-package binder.....	382,075	May 1	300	79	43	568
Connolly, Thomas A. (See Betts, Robert J., assignor.)						
Connolly, Thomas A. and A. A., Washington, D. C. Pneumatic railway and conveyer.....	381,907	May 1	16	4	43	518
Connoy, Pierre. (See Michaut, Connoy, and Wiest.)						
Conover, George, assignor to American Ring Company, Waterbury, Conn. Clothes-drier.....	387,340	Aug. 7	209	54	44	611
Conover, George, assignor to American Ring Company, Waterbury, Conn. Clothes-drier.....	388,635	Aug. 28	2198	591	44	1016
Conrad, Alfred, assignor to himself and S. Weeks, Patchogue, N. Y. Screw-propeller.....	386,966	July 31	2431	639	44	505
Conrad, Martin. (See Hotz and Conrad.)						
Conrad, Merton G., McGrawville, N. Y. Thill-coupling.....	383,864	June 5	21	8	43	1125
Conradson, Pontus, Altoona, Pa. Snow-skate.....	382,254	May 1	556	140	43	616
Conrath, Solomon, Cookport, Pa. Fence-machine.....	384,235	June 12	592	161	43	1245
Conroy, James C. (See Gray, John F., assignor.)						
Conroy, John E. (See Clarke and Conroy.)						
Consolidated Coupling Company. (See Benjamin, George H., assignor.)						
Consolidated Coupling Company. (See Harrington, Samuel H., assignor.)						
Consolidated Coupling Company. (See Harrington and Hannan, assignors.)						
Consolidated Coupling Company. (See Wilder, Francis M., assignor.)						
Consolidated Fruit Jar Company. (See Whitaker, Richard, assignor.)						
Consolidated Vapor Stove Company. (See Davis, Zehnon, assignor.)						
Constable, Gordon, Cannonsville, N. Y. Sawing-machine.....	390,456	Oct. 2	360	94	45	75
Constant, John S., White Pigeon, Mich. Fanning-mill.....	378,772	Feb. 28	2116	559	42	931
Constantin, Henry C., assignor to himself and H. J. Bookman, Brooklyn, N. Y. Shell-fish refrigerator.....	382,410	May 8	799	204	43	671
Constantine, George B. (See Foulon, Peter J., assignor.)						
Continental Cash Car Company. (See Elliott, Gilbert R., assignor.)						
Continuous Kiln Company. (See Bochncke, Max A. T., assignor.)						
Continuous Kiln Company. (See Bochncke and Kohwer, assignors.)						
Conver, William H., G. M. Sheffer, and R. V. Gilbert, Emlenton, Pa. Rotary engine.....	393,620	Nov. 27	2130	557	45	1034
Converso, Edmund, et al. (See Howes, Albert P., assignor.)						
Converso, Edmund, et al. (See Robbins, George M., assignor.)						
Converso, Edmund, assignor to Worcester Ferrule Company, Worcester, Mass. Pipe- thimble.....	390,003	Sept. 25	1827	484	44	1444
Converse, Edmund C. (See Bowers, Moses C., assignor.)						
Converse, Lyman P., Chicago, Ill. Air-heating device for cars.....	383,171	May 22	1932	{ 506 507	43	912
Converse, Morton E., Winchendon, Mass. Blackboard.....	393,214	Nov. 20	1512	396	45	904
Conway, Berry T., et al. (See Hogan, George L., assignor.)						
Conway, Frederick, Buffalo, N. Y. Harness-saddle.....	395,036	Dec. 25	2027	523	45	1490
Conway, William F., Sheffield, Mass. Potato digger and picker.....	386,384	July 17	1540	408	44	314
Conway, William M., Baltimore, Md. Chemical stove.....	386,967	July 31	2432	639	44	505
Conwell, George S., assignor of one-half to A. C. Card, Booneville, Tenn. Wagon.....	383,344	May 22	2179	577	43	958
Cook, Alouzo P., Attica, N. Y. Mowing-machine.....	391,531	Oct. 23	1869	{ 501 502	45	384
Cook, Carson C., Camas, Idaho Ter. Mail-bag.....	393,360	Nov. 27	1730	458	45	954
Cook, Charles C., Baltimore, Md. Halter.....	385,514	July 3	316	81	44	61
Cook, Conover R., Yorkville, Ill. Car-coupling.....	385,505	July 3	259	66	44	52
Cook, Edgar S., et al. (See McCarthy, Felix, assignor.)						
Cook, Frank B. (See Cook, James A. and F. B.)						
Cook, Frank H., et al. (See Gould, Charles E., assignor.)						
Cook, Frederic, New Orleans, La. Bagasse-furnace.....	380,992	Apr. 10	1052	277	43	213
Cook, Frederic, and B. Thoenes, New Orleans, La. Feed-water regulator.....	381,510	June 12	1006	262	43	1319
Cook, Frederic, and B. Thoenes, New Orleans, La. Feed-water regulator. (Reissue).....	10,957	Sept. 4	586	149	44	1181



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Cook, Frederic, and B. Thoens, New Orleans, La. Feed-water regulator .....	393,621	Nov. 27	2133	557	45	1034
Cook, Frederick W., Moline, Ill. Napkin-supporter .....	382,691	May 15	1940	323	43	766
Cook, Frederick W., San Francisco, Cal. Inserted saw-tooth .....	383,103	May 22	1838	481	43	893
Cook, Frederick W., San Francisco, Cal. Shifter for gang-edgers .....	389,443	Sept. 11	981	{ 362 263 }	44	1267
Cook, George W., assignor to M. J. Hoover, Chicago, Ill. Folding bed .....	382,460	May 8	880	224	43	685
Cook, Gustave, assignor of one-third to H. May & Co., New Orleans, La. Nut-lock .....	381,463	Apr. 17	1753	469	43	357
Cook, Gustave, assignor of two-thirds to M. G. May and H. J. Hanselman, New Orleans, La. Nut-lock .....	394,462	Dec. 11	1075	280	45	1285
Cook, Henry, Philadelphia, Pa. Amalgamator .....	375,733	Jan. 3	17	4	42	6
Cook, Hiram D., Dry Brook, N. Y. Reversible road scraper and grader .....	378,932	Mar. 6	86	25	42	983
Cook, James A., Chattanooga, Tenn. Watch-maker's tool .....	390,457	Oct. 2	363	94	45	76
Cook, James A., Detroit, Mich., and F. B. Cook, Toledo, Ohio, assignors to Western Electric Company, Chicago, Ill. Wiring switch-boards .....	385,446	July 10	767	{ 201 202 }	44	156
Cook, John M., Baltimore, Md. Flour-bolt .....	376,943	Jan. 24	1772	466	42	361
Cook, Joseph H., Roanoke, Va. Car-router .....	390,283	Oct. 2	117	33	45	26
Cook, Lewis L., Knapp's Creek, Wis. Cant-hook .....	378,366	Feb. 21	1561	408	42	816
Cook, Lewis P., Hawley, assignor of one-half to G. A. Clearwater, Scranton, Pa. Car-lock .....	379,153	Mar. 6	417	118	42	1045
Cook, Ossian, Oshkosh, Wis. Linckih .....	390,208	Oct. 2	21	6	45	7
Cook, Roswell F., Ilion, N. Y. Magazine-gun .....	378,661	Feb. 28	1907	522	42	904
Cook, Samuel G. B. (See Gillingham, Henry R., assignor.) .....						
Cook, Thomas C., Rushville, Ind. Rotary harrow .....	390,004	Sept. 25	1828	484	44	1444
Cook, Thomas G., assignor of one-half to J. A. Publow, Brockville, Ontario, Canada. Sulky-harrow .....	393,692	Nov 27	2236	{ 586 587 }	5	1056
Cook, Thomas W. G., New York, N. Y. Paper-file .....	379,860	Mar. 20	1502	395	42	1267
Cook, Walter, Christchurch, Canterbury, New Zealand. Machinery for washing wool .....	383,515	May 29	2453	650	43	1015
Cook, William, assignor to himself and P. D. Reed, New York, N. Y. Last-block fastener .....	388,182	Aug. 21	1533	409	44	880
Cooke, Adrian C., assignor, by mesne assignments, to D. W. Bosley, Chicago, Ill. Window-cleaner .....	395,267	Dec. 25	2401	615	45	1559
Cooke, Charles E. (See Flynt, Henry, assignor.) .....						
Cooke, Charles L., Syracuse, N. Y. Safety-switch .....	392,907	Nov 13	1072	278	45	810
Cooke, Charles S. (See Cooke, William A., Jr., and C. S.) .....						
Cooke, David B., assignor to himself and F. Stiles, Binghamton, N. Y. Tobacco-drier .....	391,690	Oct. 23	2099	569	45	432
Cooke, Ernest W., assignor of one-half to W. D. Eaton and C. D. Hauk, Chicago, Ill. Steam-valve .....	379,684	Mar. 20	1211	320	42	1210
Cooke, George K., assignor to D. S. Moore, New York, N. Y. Gas-burner .....	379,562	Mar. 20	1024	274	42	1174
Cooke, John T., deceased, and J. L. Bottomley, Prestwich, near Manchester, county of Lancaster, England; V. Lines administratrix of said J. T. Cooke. Shuttle and operating device therefor for narrow-ware looms .....	387,863	Aug. 14	996	{ 259 260 }	44	771
Cooke, Osborn R., Salem, Ohio. Sash-fastener .....	381,113	Apr. 17	1250	336	43	260
Cooke, Osborn R., Salem, Ohio. Nut-lock .....	388,764	Aug. 28	2483	643	44	1051
Cooke, Rollin H. (See Alvord, Jabez, assignor.) .....						
Cooke, Thomas R. (See Sheild, Frank W., assignor.) .....						
Cooke, Watts, and D. Carlough, Paterson, N. J. Upsetting-machine .....	376,295	Jan. 10	862	212	42	163
Cooke, Watts, and D. Carlough, Paterson, N. J. Upsetting-machine .....	380,862	Apr. 10	838	227	43	173
Cooke, Watts, and D. Carlough, Paterson, N. J. Machine for upsetting eye-bars .....	380,863	Apr. 10	840	227	43	174
Cooke, Watts, and D. Carlough, Paterson, N. J. Machine for upsetting eye-bars .....	390,458	Oct. 2	364	94	45	76
Cooke, William A., Jr., New York, N. Y. File for letters, &c .....	379,367	Mar. 13	732	200	42	1110
Cooke, William A., Jr., and C. S. Brooklyn, N. Y. File for letters, bills, papers, &c .....	378,869	Mar. 6	15	4	42	970
Cooke, William D. (See Violet, Francis N., assignor.) .....						
Cooke, William O., Chicago, Ill. Portable frog or car-replacer .....	388,397	Aug. 28	1806	499	44	951
Cool, James D., et al. (See Kree, Hiram C., assignor.) .....						
Cooley, Arthur M., Chicago, Ill. Door-mat .....	385,044	June 26	1815	466	43	1493
Cooley, Arthur M., assignor to A. G. Burton, Chicago, Ill. Making wooden shade rollers or poles .....	379,685	Mar. 20	1212	321	42	1211
Cooley, Chancey E., and E. G. Nason, Fort Jones, Cal. Motor .....	379,004	Mar. 6	211	57	42	1006
Cooley, Orville, assignor to Johnston Harvester Company, Batavia, N. Y. Chain-belt tightener .....	389,835	Sept. 18	1563	414	44	1385
Cooley, Orville, assignor to G. E. Dana, Batavia, N. Y. Chain-belt tightener .....	389,836	Sept. 18	1563	414	44	1385
Cooley, Samuel, Flemington, N. J. Car-coupling .....	393,693	Nov 27	2237	587	45	1056
Cooley, Sherman P., and C. M. Burgess, assignors to Russell & Erwin Manufacturing Company, New Britain, Conn. Manufacture of knob-shanks .....	391,024	Oct. 16	1192	316	45	245
Coolidge, Joseph S., Washington, D. C. Harness attachment .....	392,908	Nov. 13	1074	278	45	810
Coombe, John W., Sturgeon, Mo. Road-cart .....	388,835	Sept. 4	38	12	44	1080
Coombe, Samuel, Brooklyn, N. Y. Stone tub .....	391,121	Oct. 16	1326	353	45	270
Coombs, A. Lincoln, Cliftondale, Mass., assignor, by mesne assignments, to Singer Manufacturing Company of New Jersey. Button-hole sewing-machine .....	389,547	Sept. 18	1131	297	44	1201
Coombs, James L., Bangor, Me. Moccasin .....	391,025	Oct. 16	1193	317	45	245
Coombs, John M., Hicksville, Ohio. Vaginal syringe .....	385,911	July 10	871	230	44	179
Coombs, John M., Hicksville, Ohio. Syringe .....	394,250	Dec. 11	762	{ 301 202 }	45	1225
Coombs, Richard T. (See Haynes, Thomas, assignor.) .....						
Coombs, Thomas P. (See Cummings and Coombs.) .....						
Coomes, William W. (See Brott, John R., assignor.) .....						
Coon, Thomas R., Hood River, Oreg. Transplanting implement .....	383,629	May 29	2613	691	43	1049
Cooney, Jerry F. (See Murray and Cooney.) .....						
Cooney, Richard A., assignor of one-half to N. West, Pittsburg, Pa. Paper bag .....	394,757	Dec. 18	1560	408	45	1393
Cooper, Albert, Brooklyn, N. Y. Folding stand for camp-stools .....	378,574	Feb. 28	1845	487	42	880
Cooper, Arthur W., Chicago, Ill. Tile roofing .....	380,864	Apr. 10	842	228	43	174
Cooper, Charles, Newark, N. J. Shank for boots or shoes .....	388,263	Aug. 21	1661	443	44	907
Cooper, Charles A. (See Garly, Henry D., assignor.) .....						
Cooper, Charles F. (See Hermite and Cooper.) .....						
Cooper, Charles F., Cedar Rapids, Iowa. Stake-holding standard .....	392,186	Nov. 6	15	5	45	597
Cooper, Charles J. (See Parmelee and Cooper.) .....						
Cooper, Fred C., Rome, Ga. Delinting cotton-seed .....	389,739	Sept. 18	1435	{ 375 376 }	44	1359
Cooper, Gage M., Port Huron, Mich., assignor of one-half to D. Wood, Kent's Station, Ind. Spark-arrester .....	386,385	July 17	1542	408	44	315
Cooper, George W., New Orleans, La. Compound oil-dressing for rubber belts .....	380,993	Apr. 10	1053		43	213
Cooper, John, Boston, Mass. Fire-grate .....	389,289	Sept. 11	760	192	44	1225
Cooper, John M., and J. W., West Bellevue, Pa. Furnace for melting metal .....	392,187	Nov. 6	16	5	45	598
Cooper, John W. (See Cooper, John M. and J. W.) .....						
Cooper, John W., Atlanta, Ga. Piano-action .....	394,251	Dec. 11	763	202	45	1225



## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Cooper, John W., Boston, Mass., assignor of one-half to R. A. Holliday, Atlanta, Ga. Dental chair.....	378,433	Feb. 28	1639	{ 431 432 }	42	838
Cooper, Leonard A., Atchison, Kans. Windmill.....	377,602	Feb. 7	380	96	42	567
Cooper, Samuel, Yorkshire Centre, N. Y. Harrow.....	382,513	May 8	961	243	43	702
Cooper, Thomas. (See Everett and Cooper.)						
Cooper, Ward, La Porte City, Iowa. Paper and letter file.....	384,892	June 19	1574	409	43	1436
Cooper, William. (See Billson, John T., assignor.)						
Cooper, William, Chicago, Ill. Means for operating revolving chucks.....	391,585	Oct. 22	1965	530	45	404
Cooper, William, Oldham, and J. Cordingley, Hollinwood, county of Lancaster, England. Device for pasting cop-bottoms on spinning-machines.....	388,636	Aug. 28	2199	591	44	1016
Cooper, William S., Philadelphia, Pa. Water-closet.....	385,167	June 26	1988	509	43	1529
Cooper, William S., Philadelphia, Pa. Water-closet.....	385,168	June 26	1989	509	43	1529
Cooper, William S., Philadelphia, Pa. Water-closet structure.....	385,169	June 26	1990	510	43	1529
Co-operative Foundry Company. (See Carter, John V. B., assignor.)						
Coote, William H., Marion, assignor of one-half to J. W. Guerrant, Crittenden County, Ark. Sign.....	385,912	July 10	872	230	44	179
Cop Dyeing Company. (See Lippitt, Henry F., assignor.)						
Cop Dyeing Company. (See Richmond, Howard, assignor.)						
Copeland & Bacon. (See Bacon, Earle C., assignor.)						
Copeland, Charles A., Rocklane, Ind. Steering apparatus for traction-engines.....	394,460	Dec. 11	1072	279	45	1284
Copeland, Daniel T. (See Copeland, George W., assignor.)						
Copeland, Daniel T. (See Copeland and Crisp, assignors.)						
Copeland, Edwin T., Brooklyn, N. Y. Steam-boiler.....	390,068	Sept. 25	1927	508	44	1465
Copeland, George W. (See Crisp, Joseph E., assignor.)						
Copeland, George W. (See Grandy and Copeland.)						
Copeland, George W., Malden, Mass. Heading nails, tacks, &c.....	383,043	May 15	1748	452	43	866
Copeland, George W., Malden, Mass. Boot-trecing machine.....	385,298	June 26	2197	{ 561 562 }	43	1570
Copeland, George W., assignor to D. T. Copeland, Malden, Mass. Strip-tack-heading machine.....	383,278	May 22	2093	550	43	942
Copeland, George W., Malden, and J. E. Crisp, Somerville, assignors, by mesne assignments, to D. T. Copeland, Malden, Mass. Machine for trecing shoes.....	383,279	May 22	2094	{ 551 552 553 554 }	43	942
Copeland, Herschel P., East Orange, N. J. Telegraphic pen.....	379,368	Mar. 13	734	200	42	1110
Copeland, James S., Hartford, Conn., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.....	385,847	July 10	768	{ 202 203 204 }	44	156
Copeland, James S., Hartford, Conn., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.....	391,947	Oct. 30	2484	{ 672 673 }	45	518
Copeland, Lucius D., Camden, N. J. Steam-boiler indicator.....	389,140	May 1	386	101	43	584
Copeland, Lucius D., Camden, N. J. Fly-wheel governor for steam-engines.....	383,044	May 15	1749	452	43	866
Copeland, Lucius D., Camden, N. J. Fly-wheel.....	393,059	Nov. 20	1399	337	45	861
Copeland, Lucius D., Camden, N. J. Steam-generator.....	394,461	Dec. 11	1073	279	45	1285
Copeland, William L. (See D'Unger, Robert, assignor.)						
Copeland, William M. (See Stockwell, George E., assignor.)						
Copenhaver, Michael, Goshen, Ind. Road-cart.....	392,909	Nov. 13	1075	{ 278 279 }	45	810
Copland, Robert, Eureka, Cal. Pipe-wrench.....	382,799	May 15	1382	362	43	793
Coplen, John D., Denver, Colo. Ore concentrator and amalgamator.....	390,755	Oct. 9	777	206	45	161
Copp, Alexander P., and J. M. Remaley, Rochester Mills, Pa. Stump-puller.....	394,155	Dec. 11	615	{ 164 165 }	45	1198
Copp, Richard. (See Lippard, John F., assignor.)						
Coppage, William, assignor of one-half to W. H. Larimer and P. Crackenberger, Terre Haute, Ind. Ratchet-drill stock.....	385,660	July 3	488	126	44	95
Coppin, Henry, 58 St. German's Road, Forest Hill, county of Kent, England. Photographic-plate holder.....	376,181	Jan. 10	648	173	42	135
Copson, Robert E., Omaha, Nebr. Broom or brush bridle.....	390,005	Sept. 25	1830	485	44	1444
Corbet, John B. (See Bledsoe, William P., assignor.)						
Corbett, Frank, New York, N. Y. Anti-friction bearing.....	384,023	June 5	965	75	43	1172
Corbett, Frank, New York, N. Y. Ironing-machine.....	390,756	Oct. 9	778	207	45	161
Corbett, George, Bradford, Pa. Drilling-rig.....	385,241	June 26	2101	538	43	1552
Corbett, James R., assignor to Stein Manufacturing Company, Rochester, N. Y. Fastener for collars.....	377,290	Jan. 31	2276	601	42	466
Corbett, Philip F., Boston, Mass. Clamp.....	376,637	Jan. 17	1312	344	42	265
Corbin, Amasa, Jr., Gouverneur, N. Y. Disk harrow.....	381,908	May 1	17	5	43	518
Corbin, Amasa, Jr., Gouverneur, N. Y. Harrow.....	384,131	June 5	426	118	43	1203
Corbin, Amasa, Jr., Gouverneur, N. Y. Combined disk harrow and seeder.....	389,548	Sept. 18	1133	298	44	1302
Corbus, John. (See Haley, William, assignor.)						
Corbus, John. (See Ramsey, John W., assignor.)						
Corcoran, Andrew J., Jersey City, N. J. Windmill-vane.....	384,427	June 12	878	229	43	1296
Corcoran, Andrew J., Jersey City, N. J. Windmill.....	387,212	Aug. 7	23	5	44	577
Corcoran, James G., et al. (See Chamberlin, George, assignor.)						
Corcoran, William, Copenhagen, N. Y. Holdback.....	387,398	Aug. 7	297	76	44	629
Corder, Luther R., Jacksonville, assignor of one-half to L. L. Boone, Little Rock, Ark. Cotton-chopper.....	377,450	Feb. 7	156	36	42	524
Cordeman, Solomon, Waveland, Iowa. Hog-trough.....	378,434	Feb. 28	1642	432	42	838
Cordes, Hubert H., Tuckenhay House, Totnes, South Devon, England. Fishing-reel.....	384,309	June 12	701	186	43	1264
Cordingley, John. (See Cooper and Cordingley.)						
Cords, John W., Williamstown, Iowa. Sash-holder.....	390,006	Sept. 25	1830	485	44	1445
Cordy, Nicholas, Blanchester, Ohio. Milk-pail.....	392,500	Nov. 6	476	120	45	685
Corey, David A. (See Luscomb and Corey.)						
Corey, George D., assignor to C. M. Hosmer, Lowell, Mass. Jar or bottle for fruit, milk, &c.....	380,091	Mar. 27	1842	490	42	1342
Corey, George D., assignor to C. M. Hosmer, Lowell, Mass. Packing or storing vessel.....	380,092	Mar. 27	1843	491	42	1343
Corey, Harry F., Alameda, Cal. Nut-lock.....	389,639	Sept. 18	1280	337	44	1328
Corey, James L., Taunton, Mass., assignor to Birmingham Iron Foundry, Birmingham, Conn. Wire-nail machine.....	377,238	Jan. 31	2194	{ 578 579 }	42	451
Corey, James W., Newark, N. J. Mourning-band for hats.....	376,428	Jan. 17	996	261	42	206
Corey, John A., Rockville, assignor of one-half to C. D. Chase, Shannock, R. I. Wagon-jack.....	388,341	Aug. 21	1774	473	44	928
Corey, John A., Rockville, assignor of one-half to C. D. Chase, Shannock, R. I. Wagon-wrench.....	392,146	Oct. 30	2799	760	45	580
Corey, John H., Pittsfield, Mass. Bottle-stopper.....	391,948	Oct. 30	2487	673	45	519

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Corey, Rufus H., assignor of one-half to D. M. Osborne, Auburn, N. Y. Cord-tying mechanism for grain-binders.....	376,515	Jan. 17	1124	{ 293 } 294	42	230
Corgan, Daniel, Luzerne, Pa. Coal-drill bit.....	381,114	Apr. 17	1252	336	43	200
Corkhill, Henry R., Sr., assignor to A. Sorge, Jr., Rochester, N. Y. Button-fly-marking machine.....	380,994	Apr. 10	1053	278	43	213
Corley, Micheal J., Jersey City, N. J. Pulp-reducing machine.....	389,202	Sept. 11	613	157	44	1195
Corliss, Emily A., administratrix. (See Corliss, George H.)						
Corliss, George H., deceased; E. A. Corliss administratrix, Providence, R. I. Cylinder relief-valve.....	388,264	Aug. 21	1662	443	44	907
Corliss, George H., deceased; E. A. Corliss administratrix, Providence, R. I. Steam-engine valve.....	388,265	Aug. 21	1663	444	44	908
Corman, Charles A., Cochituate, Mass. Temperature-regulator for incubators.....	378,435	Feb. 28	1643	432	42	839
Corn, Robert A., Hale Wood, N. C. Hillside-plow.....	381,909	May 1	18	5	43	518
Corne, William F., Cambridge, Mass. Method of and apparatus for treating fiber-coated seed.....	381,616	Apr. 24	1983	521	43	421
Cornelius, John, Evansville, Ind. Stump-extractor.....	393,541	Nov. 27	2014	{ 526 } 527	45	1011
Cornelius, Wilber F. (See Fulton and Cornelius.)						
Cornelius, Wilber F., assignor to D. L. Whittier, Indianapolis, Ind. Churn.....	386,575	July 24	1838	485	44	383
Cornell, Elijah B., Philadelphia, Pa. Air-injecting device for boiler-furnaces.....	380,475	Apr. 3	218	68	43	51
Cornell, John M., New York, N. Y. Doek.....	379,861	Mar. 20	1503	395	42	1267
Cornell, John M., New York, N. Y. Shutter-fastener.....	386,423	July 17	1610	421	44	332
Cornell, Joseph, Petersburg, Colo. Water-distributing apparatus.....	380,313	Apr. 3	10	2	43	4
Cornely, Emil, Washington, D. C. Machine for fixing cords to textile fabrics.....	376,860	Jan. 24	1662	434	42	339
Cornely, Emil, Paris, France. Embroidering-machine.....	392,010	Oct. 30	2579	{ 701 } 702	45	536
Cornish, Harry B., Blue Earth City, Minn. Coffee-pot.....	377,514	Feb. 7	256	63	42	543
Cornman, Wilson T., et al. (See Borges, Joseph O., assignor.)						
Cornthwaite, Jacob. (See Firth and Cornthwaite.)						
Cornwell, Phillip W., Brockton, Mass. Draft-regulator.....	390,284	Oct. 2	118	34	45	27
Corrigan, Hamlet, Forest City, Pa. Fastening for miners' car checks or labels.....	385,407	July 3	105	29	44	23
Corsbie, James H., assignor of one-half to M. J. Speaks, Hartsell's, Ala. Sash-balance.....	383,280	May 22	2099	554	43	943
Corscaden, Thomas. (See Hart and Corscaden.)						
Cortrite, Barnard. (See Roberts, Albert E., assignor.)						
Cory, Albert J. (See Hunt, Preston R., assignor.)						
Cory, John H., Allen, Mich. Trace-fastening.....	377,738	Feb. 14	584	150	42	620
Cosby, Anderson B., Richmond, Va. Churn-cover.....	377,710	Feb. 7	541	138	42	596
Cosgrove, Sylvester A., et al. (See Rhule, Jacob, assignor.)						
Cosgrove, William F. (See Morrin and Cosgrove.)						
Cosper, William H., Chicago, Ill. Weather-stripping.....	379,208	Mar. 13	506	142	42	1068
Cossette, Henry, Champlain, Quebec, Canada, assignor to Diamond Prospecting Company, Chicago, Ill. Core-lifter for annular rock-drills.....	377,239	Jan. 31	2196	579	42	451
Cossler, James W., Briar Hill, Ohio. Machine for cutting hoop-iron.....	391,586	Oct. 23	1966	530	45	404
Costello, John, assignor of one-half to J. F. Simms, Attleborough, Mass. Button.....	379,529	Mar. 13	969	262	42	1157
Coston, Samuel B., Scranton, Pa. Bouquet-holder.....	393,886	Dec. 4	227	61	45	1115
Coté, Alphonse, Galway, N. Y. Pipe-coupling.....	383,865	June 5	29	8	43	1125
Coté, Alphonse, Galway, N. Y. Railway-chair.....	387,399	Aug. 7	298	76	44	629
Coté, Frank X., and C. T. Charland, Biddeford, Me. Loop for loom-picker staffs.....	399,060	Sept. 4	371	97	44	1143
Cote, Fred, Minneapolis, Minn. Dumping-car.....	377,424	Feb. 7	120	25	42	517
Cottle, Freeman N., Hyde Park, Mass. Tripod.....	381,340	Apr. 17	1570	421	43	323
Cottle, Shubael, New York, N. Y. Button.....	378,923	Mar. 6	88	25	42	984
Cottle, Shubael, New York, N. Y. Making buttons, &c.....	384,192	June 5	519	141	43	1222
Cottle, Shubael, New York, N. Y. Making buttons.....	384,226	June 5	572	156	43	1232
Cottle, Shubael, New York, N. Y. Button.....	391,230	Oct. 16	1476	392	45	299
Cottle, Shubael, New York, N. Y. Bracelet.....	391,883	Oct. 30	2391	648	45	500
Cotton, Clifton H., et al. (See Rothe, August, assignor.)						
Cotton, William W., et al. (See Rothe, August, assignor.)						
Cottrell, Calvert B., Stonington, Conn. Inking apparatus for printing-machines.....	385,098	June 26	1893	483	43	1510
Cottrell, Calvert B., Stonington, Conn. Printing-machine.....	385,099	June 26	1894	{ 483 } 484	43	1510
Cottrell, Calvert B., Stonington, Conn. Sheet-delivery apparatus for printing-machines.....	385,100	June 26	1898	484	43	1511
Cottrell, Calvert B., Stonington, Conn. Sheet-delivery apparatus for printing-machines.....	387,768	Aug. 14	860	222	44	744
Cottrell, Calvert B., Stonington, Conn. Gripper mechanism for printing-machines.....	391,515	Oct. 23	1871	502	45	384
Cottrell, Calvert B., Stonington, Conn. Paper-cutting machine.....	391,949	Oct. 30	2489	673	45	519
Cottrell, Charles P., assignor to C. B. Cottrell & Sons, Stonington, Conn. Air spring or cushion for printing-machines.....	383,630	May 29	2014	691	43	1049
Cottrell, Edgar H., Stonington, Conn. Apparatus for drying matrices and casting stereo-types.....	391,516	Oct. 23	1872	{ 502 } 503	45	384
Cottrell, George, San Francisco, Cal. Power mechanism.....	378,192	Feb. 21	1269	336	42	761
Cottrell, George W., et al. (See Cottrell, Samuel H., assignor.)						
Cottrell, John A., et al. (See Cottrell, Samuel H., assignor.)						
Cottrell, Samuel H., Ramsey, Ala. Fertilizer-distributor.....	376,731	Jan. 24	1453	{ 382 } 383	42	301
Cottrell, Samuel H., assignor of one-third to J. A. and G. W. Cottrell, Ramsay, Ala. Axle-lubricator.....	389,500	Sept. 11	1056	281	44	1280
Cottrell & Sons, C. B. (See Cottrell, Charles P., assignor.)						
Couch, Franklin, White Plains, N. Y. Playing-card.....	378,497	Feb. 28	1737	458	42	859
Couche, Jules, assignor to R. & H. Simon, Union Hill, N. J. Tension-regulating device for cop-winding machines.....	393,887	Dec. 4	227	61	45	1115
Coughlan, Peter F., assignor to W. Scott, Waterbury, Conn. Hat-hanger.....	391,784	Oct. 30	2241	610	45	469
Coughlin, Reese P., Winsted, Conn. Manufacture of clock-cases and other articles from plastic material.....	379,450	Mar. 13	847	{ 228 } 229	42	1133
Coulon, Georges, Paris, France. Bolt for connecting rails for permanent ways.....	394,098	Dec. 4	529	142	45	1172
Coultras, James W., Clinton, Ill. Book-support.....	393,542	Nov. 27	2016	527	45	1012
Coulter, James, Batley, county of York, England. Machinery for dressing and planing stone.....	387,341	Aug. 7	209	55	44	612
Coulter, James, Batley, county of York, England. Stone-dressing machine.....	387,342	Aug. 7	212	56, 57	44	612
Coulter & McKenzie Machine Company. (See Calam, William, assignor.)						
Coulter & McKenzie Machine Company. (See Horchkiss, Joseph, assignor.)						
Coulter, William B., Bristol, Conn. Valve mechanism for oscillating engines.....	385,506	July 3	260	66, 67	44	53
Counter, William E., Three Rivers, Mich. Clock striking mechanism.....	376,074	Jan. 10	489	132	42	105
Counter, William E., and L. O. Miller, Three Rivers, Mich. Screw-holder for watch-repairers.....	392,589	Nov. 13	610	153	45	718
Coup, John, New York, N. Y. Car-coupling.....	384,193	June 5	321	{ 141 } 142	13	1222

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Coupal, Joseph. (See Clifford and Coupal.)						
Coupal, Joseph. (See Coupal, Peter A. and J.)						
Coupal, Peter A., Boston, Mass., assignor to Leather Lock Sewing Machine Association, Portland, Me. Sewing-machine for uniting soles to uppers .....	381,988	May 1	147	36 37 38	43	542
Coupal, Peter A., Boston, and J. Coupal, Quincy, Mass., assignors to Leather Lock Sewing Machine Association, Portland, Me. Sewing-machine for connecting soles and uppers ..	381,987	May 1	143	34 35 36	43	541
Coupal, Peter A. and J., Boston, Mass., assignors to Leather Lock Sewing Machine Company, Portland, Me. Sewing-machine for connecting soles and uppers .....	385,299	June 26	2199	562 563 561 565	43	1571
Coupon Envelope Company. (See Bobrick, Gabriel A., assignor.)						
Coursen, George H., Baltimore, Md. Nail-brush .....	380,476	Apr. 3	250	69	43	51
Coursen, George H., Baltimore, Md. Glove-fastener .....	384,428	June 12	880	229	43	1297
Coursen, George H., Baltimore, Md. Glove-fastener .....	384,429	June 12	881	229	43	1297
Coursen, George H., Baltimore, Md. Shoe-fastening .....	385,848	July 10	772	204	44	157
Coursen, George H., Baltimore, Md. Oil-can .....	386,556	July 24	1839	486	44	383
Coursen, George H., Baltimore, Md. Lead-pencil sharpener .....	388,533	Aug. 28	2051	552	44	988
Coursen, George H., Baltimore, Md. Trousers-stitcher .....	388,952	Sept. 4	218	58	44	1114
Coursen, George H., Baltimore, Md. Lighting attachment for mirrors .....	391,122	Oct. 16	1326	353	45	270
Coursen, George H., Baltimore, Md. Walking-cane .....	391,123	Oct. 16	1327	354	45	270
Courtemanche, J. A. (See Laport, Arthur, assignor.)						
Courtright, Archibald L., Mount Hamill, Iowa. Hay-stacker .....	379,102	Mar. 6	354	101	42	1032
Covel, Milo, Chicago, Ill. Automatic feed-water apparatus for boilers .....	376,472	Jan. 17	1058	277	42	217
Covel, Milo, Chicago, Ill. Machine for straightening and hammering saws .....	380,865	Apr. 10	845	228	43	174
Covell, Edgar C., E. S. Cram, and W. E. Sheehan, Lacomia, N. H. Trimming device for knitting-machines .....	388,183	Aug. 21	1534	409	44	880
Covell, William W., Providence, R. I. Detachable button .....	383,441	May 29	2333	620	43	992
Coventry, Henry. (See Hopkins, Coventry, Neymann, and Beardslee.)						
Coventry, William M., Longton, Kans. Wash-boiler .....	386,626	July 24	1901	502 503	44	397
Covert, Enoch, Farmer Village, N. Y. Harness-strap attachment .....	381,216	Apr. 17	1383	370	43	285
Covert, James C., West Troy, N. Y. Halter .....	379,369	Mar. 13	735	200	42	1111
Covert, James C., West Troy, N. Y. Halter .....	382,692	May 15	1242	324	43	766
Covert, James C., and J. Billingham, West Troy, N. Y.; said Billingham assignor to said Covert. Machine for welding chain-links .....	377,193	Jan. 31	2119	559	42	438
Cowan, Charles B. (See Ash, Joseph S., assignor.)						
Cowan, Elias, Granger, Tex. Sweep for corn and cotton cultivators .....	392,590	Nov. 13	611	153	45	718
Cowan, Harry W., Gros, Dak. Ter. Automatic grain-measure .....	379,209	Mar. 13	507	143	42	1068
Cowans, Robert, et al. (See Pearson, George D., assignor.)						
Coward, Frederick E. (See Meyers and Coward.)						
Cowart, John W. (See McGuire, Herbert E., assignor.)						
Cowden, Reynolds I., assignor of one-half to C. N. Schmick, Lecomia, Ohio. Paving-block .....	381,341	Apr. 17	1572	422	43	323
Cowdery, George, and E. R. Thomas, Burwood, near Sidney, New South Wales. Construction of permanent ways .....	388,266	Aug. 21	1664	444	44	908
Cowell, Edward R. E., et al. (See Morgan, Benjamin B., assignor.)						
Cowell, Edward R. E., Ypsilanti, Mich. Railway-crossing .....	3-6,056	July 10	1057	282	44	216
Cowell, Edward R. E., Ypsilanti, Mich. Switch-signal .....	326,057	July 10	1058	283	44	216
Cowell, George E. (See De Long, Peter, assignor.)						
Cowell, Newell P., Cleveland, Ohio. Vestibule-car .....	394,339	Dec. 11	904	238	45	1254
Cowell, Newell P., Cleveland, Ohio. Vestibule-car .....	394,340	Dec. 11	906	238 239	45	1254
Cowen, Martin. (See Tilton and Cowen.)						
Cowher, Daniel M., and J. L. Numer, Mapleton Depot, Pa. Car-coupling .....	378,163	Feb. 21	1233	324	42	753
Cowles, Frank L., Delavan, Wis. Surgeon's combined operating-table and desk .....	380,866	Apr. 10	847	229	43	175
Cowles, Frank L., Delavan, Wis. Surgeon's combined operating-table and desk .....	385,545	July 3	317	82	44	64
Cowles, James A., Chicago, Ill. Oil vaporizer and burner .....	390,757	Oct. 9	760	207 208	45	161
Cowles, John E., New York, N. Y. Package for containing and displaying merchandise .....	387,769	Aug. 14	862	222	44	744
Cowles, Martin, Bridgeport, Conn. Knife .....	382,591	May 8	1088	240	43	727
Cowley, James T., assignor to Lamson Store Service Company, New York, N. Y. Store-service apparatus .....	391,026	Oct. 16	1194	317 318	45	216
Cowley, James T., Lowell, assignor to Lamson Store Service Company, Boston, Mass. Store-service apparatus .....	391,027	Oct. 16	1198	318 319	45	247
Cowley, James T., New York, N. Y., assignor to Lamson Store Service Company, Boston, Mass. Store-service apparatus .....	378,542	Feb. 28	1795	474	42	870
Cowley, James T., New York, N. Y., assignor to Lamson Store Service Company, Boston, Mass. Store-service apparatus .....	394,557	Dec. 18	1227	320 321	45	1327
Cowley, James T., New York, N. Y., assignor to Lamson Store Service Company, Boston, Mass. Store-service apparatus .....	394,835	Dec. 18	1708	443	45	1491
Cox Electric Company, H. B. (See Cox, Harry B., assignor.)						
Cox, Francis R., Sandwich, Ill. Whiffletree .....	392,011	Oct. 30	2580	702	45	537
Cox, George, Reading, Pa. Clothes-drier .....	388,478	Aug. 28	1977	531	44	974
Cox, George C. (See Cox, Harry B., assignor.)						
Cox, Harry B., assignor to G. C. Cox, Cincinnati, Ohio. Galvanic battery .....	383,706	May 29	2722	718	43	1072
Cox, Harry B., Cincinnati, Ohio, assignor to H. B. Cox Electric Company, New Haven, Conn. Rheotome mechanism for medical batteries .....	389,640	Sept. 18	1281	337	44	1328
Cox, Henry. (See Cox, John W. and H.)						
Cox, Henry F., Philadelphia, Pa. Rail-spliee or fish-plate .....	378,543	Feb. 28	1797	475	42	871
Cox, Henry F., Philadelphia, Pa. Rail-joint .....	378,575	Feb. 28	1846	487	42	881
Cox, Isaac H., Bridgeton, N. J. Apparatus for cleaning soldering-irons .....	381,761	Apr. 24	2184	571	43	460
Cox, John W. and H., Earlham, Iowa. Sleigh .....	388,534	Aug. 28	2053	552	44	988
Cox, Joseph L., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-machine .....	392,540	Nov. 6	531	134	45	696
Cox, Patrick, Rochester, N. Y. Mechanism for forming counter-stiffeners .....	385,745	July 10	619	162	44	128
Cox, Patrick, Rochester, N. Y. Manufacture of counter-stiffeners for boots or shoes .....	385,746	July 10	622	162 163	44	129
Cox Stove Company, Abram. (See Hopkin, George E., assignor.)						
Cox, Theodore. (See Manning, Chesterfield, assignor.)						
Coxe, Eckley B., and S. Salmon, Drifton, Pa.; said Salmon assignor to said Coxe. Coal-screening mechanism .....	380,190	Mar. 27	1975	528	42	1368

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Coxe, Eckley B. and S. Salmon, Drifton, Pa.; said Salmon assignor to said Coxe. Automatic slate-picker.	382,215	May 1	490	127	43	604
Coy, Frederick W. (See Saxe, Seelye, and Coy.)						
Coy, Frederick W., Boston, Mass. Sole-laying machine.	376,406	Jan. 10	951	{ 249 250 }	42	190
Coy, Frederick W., assignor to A. Fuller, Boston, and E. C. Judd, Lynn, Mass. Sole-pressing machine.	393,215	Nov. 20	1514	{ 396 397 }	45	904
Coy, Frederick W., assignor to A. Fuller, Boston, and E. C. Judd, Lynn, Mass. Sole-laying and pressing machine.	393,216	Nov. 20	1517	{ 397 398 }	45	905
Coy, Frederick W., and G. A. Fullerton, Boston, Mass., assignors to Champion Trimmer Company, of New Hampshire. Machine for trimming sole-edges.	378,870	Mar. 6	17	4, 5, 6	42	970
Coy, John, Oswego, N. Y., assignor, by mesne assignments, to Paragon Plaster Company, of New York. Composition of matter for plastering, &c.	390,157	Sept. 25	2062	.....	44	1493
Coyle, Andrew M. (See Read and Coyle.)						
Coyle, Francis X. (See Coyle, Hugh B. and F. X.)						
Coyle, Hugh B. and F. X., Philadelphia, Pa. Awning.	394,341	Dec. 11	907	239	45	1255
Coyle, James, Lancaster, Pa., assignor of two-thirds to C. W. Sadler and J. H. Giles, Sutter Creek, Cal. Device for hitching animals.	379,103	Mar. 6	355	101	42	1032
Coze, André, Rheims, France. Gas-retort beuch.	388,953	Sept. 4	220	58	44	1114
Crabb, James N., Richmond, Ind. Nut-lock.	391,028	Oct. 16	1200	319	45	217
Crabbs, John C., Auburndale, Ohio. Drill-chuck.	386,185	July 17	1219	332	44	260
Crackenberger, Peter, <i>et al.</i> (See Coppage, William, assignor.)						
Craft, James B., New York, N. Y. Apparatus for ice-making and refrigerating.	376,732	Jan. 24	1455	{ 383 384 }	42	302
Crafts, John F. (See Morse, Nolan, assignor.)						
Crafts, John L., Somerville, Mass. Truck and ladder.	379,053	Mar. 6	281	81, 82	42	1018
Cragin, Edward F. (See Buckingham, Reuben D., assignor.)						
Cragin, George P., Ada, assignor to W. R. Smith, Fergus Falls, and I. L. Cragin, Ada, Minn. Blacking-box holder.	378,954	Mar. 6	131	38	42	992
Cragin, Ida L., <i>et al.</i> (See Cragin, George P., assignor.)						
Cragin Manufacturing Company. (See Kindlen, John H., assignor.)						
Cragin, William P., Chicago, Ill. Constructing metal buckets.	393,144	Nov. 20	1410	368	45	882
Craig, Alexander. (See Holmgren, Peter F., assignor.)						
Craig, Archibald F., Paisley, A. Neilson, Invermann, county of Renfrew, and J. Snodgrass, Pumpherton, county of Mid-Lothian, Scotland. Centrifugal apparatus for separating oils.	383,707	May 29	2725	{ 718 719 }	43	1073
Craig, Isaac E., Camden, Ohio. Manufacture of sheet-iron.	379,370	Mar. 13	736	.....	42	1111
Craig, Isaac E., Camden, Ohio. Manufacture of sheet-iron.	379,371	Mar. 13	737	.....	42	1111
Craig, Isaac E., Camden, Ohio. Manufacture of sheet-iron.	382,352	May 8	717	.....	43	655
Craig, James W., Coeville, Kans. Corn-planter.	376,370	Jan. 10	908	238	42	183
Craig, John C., Fenelon Falls, Ontario, Canada. Combined latch and lock.	387,400	Aug. 7	299	77	44	629
Craig, John C., Fenelon Falls, Ontario, Canada. Combined latch and lock.	387,401	Aug. 7	300	77	44	629
Craig, John E., South West City, Mo. Car-coupling.	383,631	May 29	2615	692	43	1049
Craig, Lee D., San Francisco, Cal. Erasing-shield for type-writers.	394,342	Dec. 11	910	239	45	1255
Craig, Lewis B., assignor of one-half to H. C. Long, Salem, Mo. Truss.	376,861	Jan. 24	1663	434	42	339
Craig, Lewis B., assignor of one-half to H. C. Long, Salem, Mo. Abdominal supporter.	390,570	Oct. 2	527	138	45	106
Craig, Marie M. P., <i>et al.</i> (See Martel, Adelard F., assignor.)						
Craig, Samuel, Holmesburg, Pa. Road-cart.	389,444	Sept. 11	982	263	44	1267
Craig, Thomas E., Akron, Ohio. Oilier for commutators.	393,422	Nov. 27	1820	480	45	972
Craig, William R., Columbia, Tenn. Cotton scraper and sweep.	388,398	Aug. 28	1867	499	44	951
Craig, William R., assignor to C. H. Shepard, Columbia, Tenn. Double-shovel plow.	387,770	Aug. 14	863	223	44	744
Craig, William S., Springfield, Ohio. Table-slide.	387,149	July 31	2702	708	44	553
Craighead & Kintz Manufacturing Company. (See Kintz, Joseph, assignor.)						
Craighead & Kintz Manufacturing Company. (See Kintz, Joseph, assignor.) (Reissue.)						
Crain, William O., assignor of two-thirds to Wise Brothers, Baltimore, Md. Sewing-machine.	376,978	Jan. 24	1817	478	42	370
Cram, Alonzo W. (See Sargent, Chase, and Cram.)						
Cram, Alonzo W., Haverhill, Mass. Time closing-valve for water-closets.	380,619	Apr. 3	470	133	43	95
Cram, D. Henry, Boston, Mass. Derrick.	382,141	May 1	387	101	43	584
Cram, Elisha S. (See Covell, Cram, and Sheehan.)						
Cramer, William F. (See Stockton, Robert N., assignor.)						
Cramp & Sons Ship and Engine Building Company, William. (See Stites, George, assignor.)						
Crampton, James, San Francisco, Cal. Rubber hose.	377,801	Feb. 14	715	181	42	646
Crandall, Albert C., West Dennis, Mass. Spinnaker-boom for yachts, &c.	383,172	May 22	1934	507	43	912
Crandall, Arthur, <i>et al.</i> (See Williams, William P., assignor.)						
Crandall, Charles A. (See Ward, Hezekiah F., assignor.)						
Crandall, Charles M., assignor to M. Lyman, Waverly, N. Y. Toy.	383,442	May 29	2334	620	43	992
Crandall, Edward H. (See Sperbeck, James O., assignor.)						
Crandall, George H., assignor of one-half to H. A. Chase, Palmyra, N. Y. Piston-rod packing.	394,156	Dec. 11	616	165	45	1199
Crandall, Henry F., assignor to Milwaukee Harvester Company, Milwaukee, Wis. Windlass.	380,995	Apr. 10	1054	278	43	213
Crandall, Jesse A., Brooklyn, N. Y. Sled.	376,585	Jan. 17	1213	329	42	248
Crandall, Jesse A., Brooklyn, N. Y. Umbrella-hanger.	380,996	Apr. 10	1055	278	43	213
Crandall, Jesse A., assignor of one-half to J. Wood, Brooklyn, N. Y. Mop-wringer.	385,170	June 26	1990	510	43	1530
Crandall, Lucien S., Syracuse, N. Y. Inking device for type-writing machines.	381,910	May 1	19	5	43	518
Crandall, Nathan W. (See Jopson and Crandall.)						
Crandall, Nathan W., assignor of one-half to G. W. Jopson, Meriden, Conn. Vise.	390,650	Oct. 9	629	168	45	133
Crandall, William E., New York, N. Y. Hobby-horse.	385,792	July 10	687	179	44	142
Crandell, James M. and O. A., Nelson, Nebr. Churn.	389,874	Sept. 25	1645	436	44	1407
Crandell, Orlando A. (See Crandell, James M. and O. A.)						
Crane, Andrew J., assignor of one-half to G. B. Smith, Dunmore, Pa. Draft-equalizer and spark-arrester.	380,677	Apr. 10	566	156	43	123
Crane Bros. Manufacturing Company. (See Hayden, James T., assignor.)						
Crane Bros. Manufacturing Company. (See Switzer, Byron B., assignor.)						
Crane, Charles M., Canton, Ohio. Harness-tool.	389,203	Sept. 11	615	157	44	1195
Crane, Cyrus R., Housatonic, Mass. Washing-machine.	395,087	Dec. 25	2027	{ 523 524 }	45	1490
Crane, Dominic F., White Mills, Ky. Time-chart.	379,862	Mar. 20	1504	396	42	1267
Crane, Edward N., <i>et al.</i> (See Stanley, James, assignor.)						
Crane Elevator Company. (See Fox, William T., assignor.)						
Crane Elevator Company of Illinois. (See Eichbaum, Henry, assignor.)						
Crane, Enmit, Addison, N. Y. Self-loading stone-gatherer and potato-digger.	388,342	Aug. 21	1775	{ 473 474 }	44	929

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'gt	Vol.	Page.
Crane, Frederick, <i>et al.</i> (See Stanley, James, assignor.)						
Crane, George W., Minneapolis, Minn. Sweep for horse-powers	383,443	May 29	2334	620	43	993
Crane, Jason, <i>et al.</i> (See Stanley, James, assignor.)						
Crane, Moses G., Newton, Mass. Electric Lall	388,836	Sept. 4	40	12	44	1080
Crane, Moses G., Newton, Mass. Making pliers	393,361	Nov. 27	1731	458	45	955
Crane, Origen C., New York, N. Y. Slack-adjuster for brakes	381,828	Apr. 24	2296	597	43	481
Crane, Origen C., New York, N. Y. Cable-supporting sheave for cable railways	383,708	May 29	2727	719	43	1073
Crane, Thomas R., Heathsville, Va. Fertilizer-feed for drills	377,546	Feb. 7	296	76	42	552
Crane, Thomas R., Heathsville, Va. Harrow	381,464	Apr. 17	1751	469	43	357
Crane, Thomas R., Heathsville, Va. Shoe for grain-drill tubes	381,465	Apr. 17	1755	469	43	357
Crane, Thomas S., Brick Church, N. J. Wood-cutting machine	379,451	Mar. 13	851	230	42	1134
Crane, Thomas S., East Orange, N. J. Machine for making spirally-jointed tubes	393,743	Dec. 4	9	4, 5	45	1074
Cranford, Henry L., Washington, D. C. Combined gutter and conduit	379,505	Mar. 13	939	253	42	1150
Crannell, Charles W., Oberlin, Kans. Toe-weight	389,204	Sept. 11	615	157	44	1195
Crannell, Jesse, Troy, N. Y. Repeating-check for music-sheets of mechanical musical instruments	379,887	Mar. 20	1540	406	42	1274
Crary, William P., Brooklyn, N. Y. Mustard-package	389,365	Sept. 11	861	222	44	1245
Crawford, Charles S., Plymouth, Ohio. Mechanism for playing stringed instruments	389,137	Sept. 4	504	129	44	1166
Crawford, Francis E., New Sharon, Iowa. Bitter-worker	380,667	Apr. 10	849	229	43	175
Crawford, James. (See Clark and Crawford.)						
Crawford, James, Cambridge, Mass. Service-box for water-closets	381,911	May 1	90	5	43	518
Crawford, James, Cambridge, Mass. Water-closet	383,045	May 15	1749	452	43	866
Crawford, John. (See Ker and Crawford.)						
Crawford, John, Reading, and J. B. Ker, Harrisburg, Pa. Telephone system	375,925	Jan. 3	267	72	42	56
Crawford, John M., Philadelphia, Pa. Checkrein-holder	376,816	Jan. 21	1599	419	42	328
Crawford, John M., Philadelphia, Pa. Combined clock and lamp	370,210	Jan. 31	2197	580	42	452
Crawford, Middleton, Brooklyn, N. Y. Oil-press	390,651	Oct. 9	631	168	45	134
Crawford, William H., assignor of one-half to J. R. Snow, Paris, Tex. Churn	383,866	June 5	24	8	43	1125
Crawley, Edwin, Newport, Ky. Horse-collar machine	389,690	Sept. 18	1359	356	44	1343
Creager, Harry M. (See Creager, Jonathan and H. M.)						
Creager, Jonathan and H. M., Cincinnati, Ohio. Clay-pulverizer	380,245	Mar. 27	2053	549	42	1385
Creager, Jonathan and H. M., Cincinnati, Ohio. Clay-pulverizer	385,342	July 3	7	3	44	4
Creamer, Henry, New York, N. Y. Steam-trap	376,586	Jan. 17	1215	321	42	249
Creamer, Henry, New York, N. Y. Steam trap and feeder	394,463	Dec. 11	1076	280	45	1285
Creelius, Louis J., St. Louis, Mo. Barb-wire machine	387,710	Aug. 14	780	199	44	728
Creelius, Louis J., St. Louis, Mo. Reel-stand and stop for wire-working machines	388,479	Aug. 28	1978	531	44	974
Creelius, Louis J., assignor of one-half to A. Warren, St. Louis, Mo. Lifting-jack	383,709	May 29	2728	720	43	1073
Creelius, Louis J., assignor of one-half to A. Warren, St. Louis, Mo. Lifting and lowering-jack	383,710	May 29	2730	720	43	1074
Creelius, Louis J., assignor of one-half to A. Warren, St. Louis, Mo. Lifting-jack	391,691	Oct. 23	2100	569	45	432
Creelius, Louis J., assignor of one-half to A. Warren, St. Louis, Mo. Lifting-jack	391,692	Oct. 23	2102	569	45	432
Crede, William, assignor to Horn, Brannen & Forsyth Manufacturing Company, Philadelphia, Pa. Extension pedestal-lamp	389,445	Sept. 11	982	263	44	1207
Cree, William O., and G. A. Clough, Jr., Beverly, Mass. Dieing-out machine for boot or shoe soles	382,294	May 8	622	159	43	638
Creelman, Adam. (See Rivers, Lewis, assignor.)						
Creelman, John A., assignor of one-half to G. H. Graham, Rochester, N. Y. Stop-valve	381,055	Apr. 10	1146	306	43	230
Crego, Fred B. (See Jewett, Charles W., and G. H., assignors.)						
Crehore, George P., Kansas City, Mo. Cable-railway carrying-pulley	391,454	Oct. 23	1790	478	45	367
Crichton, William G., Norwood Park, Ill. Tube-motor street-railway	376,429	Jan. 17	999	261	42	207
Cremer, James, Philadelphia, Pa. Curtain-fixture	376,143	Jan. 10	596	159	42	125
Creque, Allen P., New York, N. Y. Boiler-pedestal	375,734	Jan. 3	18	5	42	7
Creque, Allen P., New York, N. Y. Pedestal for range-boilers	376,767	Jan. 24	1520	400	42	313
Creque, Allen P., New York, N. Y. Apparatus for heating water	377,066	Jan. 31	2002	521	42	412
Creque, Allen P., New York, N. Y. Fitting for water-heating apparatus	379,269	Mar. 13	581	161	42	1082
Cresalia, Martin, San Francisco, Cal. Water-regulator attachment	388,954	Sept. 4	221	59	44	1115
Cresswell, Francis A., Strongstown, Pa. Steam-engine	378,041	Feb. 14	1045	273	42	711
Cresson, Benjamin F., Philadelphia, Pa. Dyeing aniline-black	390,842	Oct. 9	902	232	45	183
Crews, Potivent I., Meridian, Miss. Baling-press	392,785	Nov. 13	909	233	45	775
Crim, Noah, Gallon, Ill. Horse-detacher	378,193	Feb. 21	1271	336	42	761
Crippen, Edwin. (See Kalinski, Crippen, and Cashen.)						
Crippen, Edwin, and W. King, New Orleans, La. Bridle	379,005	Mar. 6	212	57	42	1007
Crippen, Edwin, and W. King, New Orleans, La. Buckle	379,006	Mar. 6	212	57	42	1007
Crippen, Edwin, and W. King, New Orleans, La. Snap-hook	380,997	Apr. 10	1056	279	43	213
Crisman, Percy G., <i>et al.</i> (See Willet, Judson D., assignor.)						
Crisp, James L., Bloomfield, N. J. Whip-lash	391,884	Oct. 30	2392	649	45	500
Crisp, Joseph E. (See Copeland and Crisp.)						
Crisp, Joseph E., Somerville, assignor to G. W. Copeland, Malden, Mass. Machine for heading tack-strips	385,747	July 10	624	163	44	129
Crist, John, and J. S. Alexander, Browning, Mo. Adjustable cutter-bar keeper	385,446	July 3	170	46	44	34
Criswell, Jaoses A., Philadelphia, Pa. Lubricating attachment for railway-cars	383,558	May 29	2523	665	43	1028
Criswell, Robert D., assignor of two-thirds to I. Welker and A. B. Heaton, Winterset, Iowa. Fifth-wheel for vehicles	394,912	Dec. 18	1843	478	45	1446
Crittenden, Thomas L. (See Pearl, Adolph, assignor.)						
Croake, Daniel, Milwaukee, Wis. Bung-retainer and stamp-protector	391,455	Oct. 23	1791	478	45	367
Crocker, Edward, <i>et al.</i> , administrators. (See Merritt, Edward.)						
Crocker Filtering Company. (See Crocker, James A., assignor.)						
Crocker, Henry, Bristol, R. I. Scrap-book	384,746	June 19	1353	353	43	1395
Crocker, James A., Brooklyn, N. Y., assignor to Crocker Filtering Company, of New York. Filtering-machine	395,038	Dec. 25	2029	524	45	1491
Crocker, Leonard B., <i>et al.</i> (See Hager, Charles, assignor.)						
Crocker, Richard, Mazomanie, and J. Diehl, Franksville, Wis. Vehicle-spring	379,763	Mar. 20	1322	353	42	1232
Crockett, Charles H., and C. C. Allen, Boston, Mass. Electric annunciator	388,537	Sept. 4	42	12	44	1080
Crockett, Edward R., assignor of one-half to J. H. Hodges, Georgetown, Tex. Trace-carrier	382,216	May 1	402	127	43	604
Crofford, Warren K., New York, N. Y. Newspaper-file	380,246	Mar. 27	2054	549	42	1385



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Crofford, Warren K., assignor of one-half to W. Bardsley, New York, N. Y. Lemon-squeezer.	377,291	Jan. 31	2278	602	42	466
Croft, John F. (See Pitner, Henry B., assignor.)						
Crofton, John. (See Greene, Crofton, and Greene.)						
Croftut, David F., assignor to Burns, Silver & Co., Bridgeport, Conn. Ticket-holder	383,797	May 29	2878	757	43	1109
Cromer, Lawrence W. (See Gavin and Cromer.)						
Cromer, Lawrence W. (See Gavin, Cromer, and Gilmor.)						
Cromer, Lawrence W., and G. Gavin, assignors to themselves and F. M. Heitman, Eureka, Nev. Automatic switch and frog for railways	381,676	Apr. 24	2066	540	43	438
Cromleigh, Sobacius, <i>et al.</i> (See Wilson, David Y., assignor.)						
Crompton Loom Works. (See Wyman, Horace, assignor.)						
Crompton, Rookes E. B., London, England. Dynamo-electric machine and electric motor.	387,343	Aug. 7	214	57	44	613
Crompton, Rookes E. B., and G. Kapp, Chelmsford, county of Essex, England. Galvanometer.	383,444	May 29	2335	620	43	993
Cronan, James W., Tiptonville, Tenn. Horse-detacher	394,157	Dec. 11	617	165	45	1199
Cronin, Matthew, Westmoreland, N. Y. Coupler for bob-sleds	377,739	Feb. 14	585	151	42	620
Cronin, William D., assignor of one-half to F. W. Detwiler, Philadelphia, Pa. Grate-bar.	377,740	Feb. 14	586	151	42	621
Cronin, William D., Philadelphia, Pa., and W. R. Moore, Champion, Ohio. Sash-balance.	392,720	Nov. 13	798	203	45	755
Cronk, Charles W., Newark, N. J. Telescopic cut-off-valve gear	376,516	Jan. 17	1136	294	42	230
Cronk, William, Havana, N. Y. Combined door-hanger, rail, and rail-bracket	384,236	June 12	594	161	43	1345
Crooker, Alfred M., Watertown, Mass. Horse-blanket	387,150	July 31	2703	708	44	553
Crooker, Frank B., Los Angeles, Cal. Button	390,209	Oct. 2	22	6	45	8
Crosby, Chancey H., <i>et al.</i> (See Brooks, Edward J., assignor.)						
Crosby, Daniel W. (See Helwitz, Ellis S., assignor.)						
Crosby, Daniel W., trustee. (See Hewett, Ernest M., assignor.)						
Crosby, Daniel W., Boston, Mass. Ventilated garment	394,558	Dec. 18	1232	321 322 298 299	45	1328
Crosby, Edwin P., Chicago, Ill. Combination-tool	389,549	Sept. 18	1137	279	45	810
Crosby, John B., Bonshaw, Prince Edward Island, Canada. Carriage-brake	392,910	Nov. 13	1076	279	45	810
Crosby, Joseph E., Westfield, N. J. Ash-sifter	383,173	May 22	1935	507 508	43	913
Crosby, Joseph E., Danvers, Mass. Boot or shoe	388,838	Sept. 4	44	12	44	1081
Crosby, Oliver, St. Paul, Minn. Derrick	388,839	Sept. 4	45	13	44	1081
Crosby, Oliver, St. Paul, Minn. Wire-rope clamp	388,840	Sept. 4	46	13	44	1081
Crosby Steam Gage and Valve Company. (See Bosworth, Charles B., assignor.)						
Crosby Steam Gage and Valve Company. (See Hughes, John, assignor.)						
Croselindre, Charles F., Newark, N. J. Wet process of extracting pure zinc from its ores.	379,764	Mar. 20	1323		42	1223
Crosier, Byron A., Sandusky, Ohio. Lawn-mower attachment	383,632	May 29	2616	692	43	1049
Crosley, Powell, <i>et al.</i> (See Stubbers, Joseph, assignor.)						
Crosley, Powell. (See English, Andrew J., assignor.)						
Cross, Anson K., Boston, Mass. Drilling device	388,637	Aug. 28	2200	591	44	1016
Cross, Frederick E., Waterbury, Conn., assignor to Eagle Pencil Company, New York, N. Y. Rubber-tip attachment for pencils and the like	384,563	June 12	1084	283	43	1334
Cross, Ira, Nashua, N. H. Spool	379,633	Mar. 20	1135	301	42	1195
Cross, Ira, Nashua, N. H. Spool or bobbin	391,456	Oct. 23	1792	478	45	367
Cross, Solomon C., Sedgwick, Kans. Device for cutting corn	391,738	Oct. 23	2170	586	45	446
Crosse, Charles G., San Prairie, Wis. Car-coupling	376,237	Jan. 10	726	193	42	149
Crossley, Arthur W., <i>et al.</i> (See Brownson, Herbert S., assignor.)						
Crossley, John B., Clay Centre, Kans. Nut-lock	379,686	Mar. 20	1214	321	42	1211
Crouch, Frank J., Eugene City, Ore. Non-polarizing constant-current battery	379,372	Mar. 13	739	201	42	1111
Crouch, Frank J., Eugene City, Ore. Rheostat	383,343	May 22	2160	577	43	958
Crouch, Frank J., Oakland, Ore. Apparatus for heating cars	380,247	Mar. 27	2055	549	42	1385
Crouch, George, New York, N. Y. Combined trunk-lift and strap-fastening	385,242	June 26	2102	538	43	1552
Crouch, George, New York, N. Y. Fastening for hand-bags and satchels	385,243	June 26	2103	539	43	1553
Crouch, George, New York, N. Y. Trunk-handle	388,638	Aug. 28	2201	592	44	1016
Crouch, Robert B. (See Wiser, Clinton B., assignor.)						
Crouse, Lewis, Three Mile Bay, N. Y. Reflector for spirit-levels	385,597	July 3	399	102	44	78
Crow, William B. (See McMackin and Crow.)						
Crow, William B., and W. E. McMackin, Milburnton, Tenn. Car-coupling	379,563	Mar. 20	1025	274	42	1174
Crow, William L., New York, N. Y. Station-indicator	387,151	July 31	2704	709	44	553
Crowds, Walter A., Dallas, Tex. Fare-box	382,756	May 15	1318	347	43	781
Crowds, Walter A., and H. M. Sutton, Dallas, Tex. Current-regulator for dynamo-electric machines	377,884	Feb. 14	824	210	42	666
Crowds, Walter A., and H. M. Sutton, Dallas, Tex. Dynamo-electric machine	380,620	Apr. 3	471	133	43	96
Crowe, Edward. (See Houson and Crowe.)						
Crowell, Beverly, and W. E. Harrison, Ashbury Park, N. J. Water-plug	391,029	Oct. 16	1200	319	45	247
Crowell, Charles F., Portland, Ore. Shoe-tongue fastening	385,045	June 26	1815	466	43	1493
Crowell, David, Yarmouth, Mass. Cranberry-gatherer	390,843	Oct. 9	902	239	45	184
Crowell, Gilmer, Brooklyn, N. Y. Rotary pressure-blower	388,639	Aug. 28	2202	592	44	1016
Crowell, Hilen C., Erie, Pa. Friction-clutch	380,384	Apr. 3	120	35	43	25
Crowell, Hilen C., Cuyahoga Falls, Ohio. Friction-clutch	383,104	May 22	1839	482	43	893
Crowell, J. Foster, and F. C. Weir, Cincinnati, Ohio. Railway-crossing	378,827	Feb. 28	2218	590	42	951
Crowell, Luther C., Brooklyn, assignor to R. and P. S. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Folding-machine	383,798	May 29	2879	757 758 759	43	1100
Crowell, Luther C., Brooklyn, assignor to R. and P. S. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Delivery mechanism for printing-machines	383,799	May 29	2883	759 760 761	43	1101
Crowell, Luther C., Brooklyn, assignor to R. and P. S. Hoe, S. D. Tucker, T. H. Mead, and C. W. Carpenter, New York, N. Y. Delivery mechanism for printing-machines	383,800	May 29	2888	761 762 763	43	1101
Crowley, Charles J. (See Clarke, Charles L., assignor.)						
Crowley, Daniel, Boston, Mass. Combination-cane	387,213	Aug. 7	25	5	44	577
Crowley, George G., assignor to Warrior Mower Company, Little Falls, N. Y. Mowing-machine	386,627	July 24	1902	503	44	397
Crowley, James K., Ansonia, Conn. Table for fining zinc and other metals	380,248	Mar. 27	2056	550	42	1386
Crowley, Thomas A., assignor of one-half to B. C. Smith, Brooklyn, N. Y. Cleaning soil-pipes and traps	390,210	Oct. 2	23	7	45	8
Crozier, William C., Knoxville, Tenn. Distributing-case	375,735	Jan. 3	19	5	42	7
Cruise, Daniel, and F. Himmel, New York, N. Y. Hoof-clasp	380,093	Mar. 27	1845	491	42	1343
Crull, Lafayette. (See McLaughlin, James T. W., assignor.)						
Crum, Joseph S., Stockdale, Kans. Listing plow or cultivator	379,863	Mar. 20	1506	396	42	1267
Crumb, Charles C., Burlingame, Kans. Cultivating harrow-tooth	388,536	Aug. 28	2054	552	44	988



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Crume & Sefton Manufacturing Company. (See Crume, William E., assignor.)						
Crume, William E., assignor to Crume & Sefton Manufacturing Company, Dayton, Ohio. Paper receptacle.....	394,158	Dec. 11	618	165 166	45	1199
Croonley, David M., Steubenville, Ohio. Fire-grate.....	381,989	May 1	151	38	43	542
Crummer, Edwin M., Belleville, Kans. Feed-house for animals.....	390,652	Oct. 9	633	169	45	134
Cronson, John N., Elizabethtown, Ill. Rafter-gage.....	378,387	Feb. 21	1562	468	42	816
Crutcher, Dallas C., et al. (See Rothchild, Joseph, assignor.)						
Crutchfield, George E., English, Ark. Running-gear for vehicles.....	392,786	Nov. 13	910	233	45	776
Cuhley, Edwin J., Ravenswood, Ill. Banjo.....	394,159	Dec. 11	619	166	45	1199
Cucuel, Alfred E., San Francisco, Cal. Street or station indicator for railways.....	394,677	Dec. 18	1438	375	45	1366
Cuddey, Michael. (See Coleman, Arnold D., assignor.)						
Cudner, Gustavis L., Bronxville, N. Y. Fruit-press.....	385,697	July 10	546	142	41	114
Cuff, Joseph E., assignor of one-half to M. L. Stern, Denver, Colo. Electric-cable joint....	391,517	Oct. 23	1874	503	45	385
Culbertson, John L., assignor of one-half to F. C. Jones, Hendrysburg, Ohio. Thill-coupling.....						
Culbertson, Arthur T., Troy, Ohio. Hedge-fence.....	389,793	Sept. 18	1507	397	44	1375
Culbreth, Richard S. (See Leonard and Kettlewell, assignors.)	393,096	Nov. 20	1346	351	45	870
Cullabine, Henry, Sheffield, county of York, England. Tobacco-pipe.....	377,241	Jan. 31	2200	580	42	452
Culley, George H. (See Logan and Culley.)						
Cullingworth, George H., New York, N. Y. Regulator for air-compressors.....	377,481	Feb. 7	199	47	42	534
Cullingworth, George H., New York, N. Y. Rotation device for rock-drills.....	392,541	Nov. 6	535	135	45	696
Culloch, Archibald M., Pittsfield, Mass. Sash-weight.....	393,060	Nov. 20	1299	338	45	861
Cully, William W., Wilson, Kans. Pump.....	381,532	Apr. 24	1865	433	43	398
Culp, Alpha B., Wakarusa, Ind. Fence.....	384,764	June 12	1084	283	43	1334
Culp, James D., San Felipe, Cal. Electrophorus.....	383,105	May 22	1840	482	43	893
Culver, Ebenezer C., Madrid, Iowa. Automatic check-row corn-planter.....	379,634	Mar. 20	1136	301	42	1195
Culver, Lucian M., and W. F. Smith, Kiowa, Kans. Envelope-holder.....	381,677	Apr. 24	2068	540	43	439
Culver, Seneca, Ruthven, Iowa. Windmill.....	389,205	Sept. 11	617	157 158	44	1196
Cummings, Charles, Cincinnati, Ohio. Road-cart.....	394,836	Dec. 18	1711	443	45	1421
Cummer, James W., Cadillac, Mich. Heating-stove.....	378,871	Mar. 6	23	6	42	971
Cumming, Findlay, San Francisco, Cal. Lathe-chuck and attachment for turning tree-nails.....	385,793	July 10	688	179	44	142
Cumming, George, San Francisco, Cal. Portable forge.....	386,771	July 24	2106	553	44	434
Cumming, George, assignor of one-half to F. Smith, San Francisco, Cal. Pipe-riveting machine.....	382,142	May 1	389	101 102	43	585
Cumming, James, Buffalo, N. Y. Railway-crossing.....	381,056	Apr. 10	1147	306	43	230
Cumming, James, Buffalo, N. Y. Tuxero.....	386,528	July 24	1776	470	44	371
Cumming, James, Boston, Mass. Tension mechanism for sewing-machines.....	381,912	May 1	21	6	43	519
Cumming, John A., Crawford, Nebr. Planter.....	388,399	Aug. 28	1869	499 500	44	951
Cummings, Archibald G., Chicago, Ill. Mineral-cement gravel roofing.....	387,580	Aug. 7	591	151	44	685
Cummings, Charles A., and R. H. Church, Worcester, Mass. Letter-box.....	394,099	Dec. 4	530	142	45	1172
Cummings, George K., New York, N. Y. Device for burning hydrocarbon oil.....	377,146	Jan. 31	2060	541	42	425
Cummings, Henry H. (See Hopkins and Cummings.)						
Cummings, Henry H., Malden, assignor to Union Button Sewing Machine Company, Boston, Mass. Stop-motion mechanism for sewing-machines.....	391,769	Oct. 23	2308	596 597	45	454
Cummings, John K., St. Louis, Mo. Machine for grinding the mouths of glass bottles, jars, &c.....	387,555	Aug. 7	542	140	41	676
Cummings, John R., assignor to American Press Association, Chicago, Ill. Backing electrotype-shells.....	375,869	Jan. 3	187	.....	42	41
Cummings, Michael J., New York, N. Y. Wheel for hand-trucks.....	383,214	May 22	1993	522 523	43	924
Cummings, Uriah, Buffalo, N. Y. Stone-dressing machine.....	376,296	Jan. 10	805	212 213	42	164
Cummings, Wilbur E., and T. P. Coombs, Woburn, Mass.; said Coombs assignor to said Cummings. Machine for molding and compressing heels for boots and shoes.....	391,124	Oct. 16	1328	354	45	271
Cummings, William H., Charlton Depot, Mass. Chemical fire-extinguisher.....	385,661	July 3	489	126	44	95
Cummins, Melford L., et al. (See Reed, Thomas L., assignor.)						
Cummins, Orin L. (See Delano and Cummins.)						
Cummins, Patrick H., Amsterdam, N. Y. Wheel.....	393,218	Nov. 20	1519	398	45	905
Cuniock, Alexander G. (See Falls, Alonzo, assignor.)						
Cunley, John, Sr., Bristol, Pa. Kitchen utensil.....	392,107	Oct. 30	2741	745	45	568
Cundy, William H. (See Mahillon, Charles, assignor.)						
Cunningham, John, Manito, Ill. End-gate.....	381,057	Apr. 10	1149	306	43	231
Cunningham, James, assignor to Kingan & Co., (limited), Indianapolis, Ind. Packing cured meat.....	392,949	Nov. 13	1131	294	45	821
Cunningham, James, and G. A. Lowry; said Lowry assignor to F. P. Woollen, Indianapolis, Ind. Hog-scraping machine.....	377,353	Jan. 31	2370	684 685	42	481
Cunningham, Abella C. (See Oliver, Henry, assignor.)						
Cunningham, David H., Elizabeth, N. J. Button-hole cutter.....	379,007	Mar. 6	213	58	42	1007
Cunningham, Emma C., Altoona, Pa. Dust-pan.....	389,366	Sept. 11	862	222	44	1245
Cunningham, Henry C., Manchester, N. H., assignor to G. Draper & Sons, Hopedale, Mass. Yarn-separator for spinning-frames.....	380,644	Apr. 3	501	140	43	102
Cunningham, Horace E., Bridgewater, Pa., assignor to Acme Staple and Machine Company, of New York. Staple-machine.....	387,946	Aug. 14	1137	305	44	799
Cunningham, James E. (See Wilhelm, Jacob, assignor.)						
Cunningham, James F., assignor to E. P. Gleason Manufacturing Company, New York, N. Y. Taper slide or holder for gas-lighting torches.....	380,094	Mar. 27	1846	491	42	1343
Cunningham, James H., Brockton, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-machine.....	381,493	Apr. 17	1798	478	43	367
Cunningham, Samuel B., Juka, Ark. Cultivator.....	390,007	Sept. 25	1831	485	44	1445
Cunningham, Thomas O., Holyoke, Mass. Automatic roll-cleaner for spinning-machines.....	378,772	Mar. 6	24	7	42	971
Curé, Nicolas. (See Garnier and Curé.)						
Cur, Jesse B., Des Moines, Iowa. Self-heating flat-iron.....	383,346	May 22	2181	577	43	958
Curley, Terence F., Brooklyn, N. Y. Nail-cutter.....	385,914	July 10	874	231	44	179
Curran, J. Frank. (See Gordner and Curran.)						
Current, Bourbon, Paris, Ky. Hand fence-machine.....	378,873	Mar. 6	26	7	42	971
Currey, Edward C., South Evanston, Ill., assignor to Evener Spring Company, of New York. Whistle-tree-spring.....	382,353	May 8	718	181	43	655
Currie, Edward, Jr., assignor of one-half to R. J. Quigley, Toronto, Ontario, Canada. Neck-tie-holder.....	390,571	Oct. 2	528	138	45	106
Currie, Stanley C. C. (See Timmis and Currie.)						
Currie, Stanley C. C., London, county of Middlesex, England, assignor to Currie-Timmis Electric and Railway Supply Company, (limited). Electric railway-signal.....	384,962	June 26	1669	434	43	1463

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Currie, Stanley C. C., Philadelphia, Pa., assignor to United Electric Improvement Company, Gloucester, N. J. Indicator for secondary batteries.....	393,744	Dec. 4	14	6	45	1075
Currie, Stanley C. C., Philadelphia, Pa., assignor to United Electric Improvement Company, Gloucester, N. J. Indicator for secondary batteries.....	394,100	Dec. 4	531	{ 142 143 }	{ 45 }	1173
Currie-Timmis Electric and Railway Supply Company. (See Currie, Stanley C. C., assignor.)						
Currier, Charles M., Chicago, Ill. Combined blower and chimney-draft controller.....	386,529	July 24	1777	470	44	372
Currier, Cyrus C. (See Boucher, Sidney H., assignor.)						
Currier, Cyrus C., Newark, N. J. Casting ingots.....	385,749	July 10	627	164	44	130
Currier, George S., Garnett, Kans. Car-mover.....	382,757	May 15	1320	347	43	782
Currier, James E. W., Ottawa, Ontario, Canada, assignor of one-half to J. W. Currier, North Troy, Vt. Car-truck.....	386,109	July 17	1145	304	44	238
Currier, John W. (See Currier, James E. W., assignor.)						
Currier, John W., North Troy, Vt. Wear plate.....	379,210	Mar. 13	512	144	42	1069
Currier, William M. (See Patch, Benjamin F., assignor.)						
Curry, Thomas P., Danville, Ky. Railway-signal.....	388,023	Aug. 21	1254	341	44	830
Curtice, Jesse M., Louisville, Ky. Foot-power motor.....	390,653	Oct. 9	634	169	45	134
Curtice, William H., Louisville, Ky. Churn.....	388,537	Aug. 28	2055	553	44	988
Curtin, Henry, assignor of one-half to W. Hose, Little Falls, N. Y. Circular-knitting machine.....	350,385	Apr. 3	121	35	43	26
Curtis, Amasa, Freeport, Ill. Whiffletree-hook.....	376,733	Jan. 24	1457	384	42	302
Curtis, Arthur B. (See Linsley, Newton, assignor.)						
Curtis, Charles A., et al. (See Kree, Hiram C., assignor.)						
Curtis, Dexter. (See Lynch, Matthew W., assignor.)						
Curtis Fence Machine Company. (See Odell and Hopper, assignors.)						
Curtis, Francis, Springfield, Mass. Envelope-opener.....	388,343	Aug. 21	1776	474	44	929
Curtis, Francis, Newburyport, Mass., assignor to Arlington Manufacturing Company, of New Jersey. Apparatus for securing blocks of plastic material while planing them into sheets.....	386,110	July 17	1146	305	44	239
Curtis, Francis, Newburyport, Mass., assignor to Arlington Manufacturing Company, of New Jersey. Securing blocks of plastic material while planing them into sheets.....	387,947	Aug. 14	1139	306	44	799
Curtis, Henry A., assignor of one-half to J. A. Edgar, Washington, D. C. File-box.....	386,058	July 10	1060	283	44	217
Curtis, Herbert, New York, N. Y. Hod-elevator.....	377,741	Feb. 14	587	151	42	621
Curtis, John L., Milwaukee, Wis. Ratchet.....	382,637	May 8	1152	297	43	740
Curtis, Lyman T., Flint, Mich. Fence-making machine.....	388,400	Aug. 28	1871	500	44	952
Curtis, Nelson, Boston, Mass. Pipe-coupling for railway-trains.....	376,075	Jan. 10	491	{ 132 133 }	{ 42 }	105
Curtis, Nelson, Boston, Mass. Steam-separator.....	393,543	Nov. 27	2017	527	45	1012
Curtis, William H. (See Allington and Curtis.)						
Curtis, William H., La Due, Mo. Ticket-printing machine.....	380,278	Mar. 27	2091	560	42	1393
Curtiss, Charles N., et al. (See Hoke and Harris, assignors.)						
Curtiss, Enos, Findlay, Ohio. Saw-set.....	392,542	Nov. 6	536	135	45	697
Curtiss, Robert M., Brooklyn, N. Y. Means for automatically operating the gates of pneumatic tubes and similar ways.....	376,862	Jan. 24	1664	{ 434 435 }	{ 42 }	339
Curzon, James, Darien, Conn. Apparatus for setting writing-copies.....	382,143	May 1	391	102	43	585
Cushing, Albert H. (See Bryant, Zenos F., assignor.)						
Cushing, Ellen, San Francisco, Cal. Corset-steel protector.....	378,576	Feb. 28	1847	468	42	881
Cushing, Nichols B., Jersey City, N. J. Unwinding safety device for hoisting machinery.....	377,017	Jan. 31	1879	495	42	389
Cushman, Amos A., Shreve, Ohio. Metal roofing.....	385,408	July 3	106	30	44	23
Cushman, Edward G., New York, N. Y. Can for oil.....	385,244	June 26	2104	539	43	1553
Cushman, Elmer S., Delhi Mills, Mich. Vehicle-reach coupling.....	387,152	July 31	2706	709	44	554
Cushman, Elmer S., Delhi Mills, Mich. Wagon-reach coupling.....	392,543	Nov. 6	537	135	45	697
Cushman, Francis A., Plymouth, N. H. Sole for boots or shoes.....	379,765	Mar. 20	1324	353	42	1233
Cushman, Henry S., Milford, Mass. Whip-stock core.....	378,662	Feb. 28	1970	522	42	904
Cusksley, John H., Minot, Me. Corn-silking machine.....	390,948	Oct. 9	1049	277	45	212
Cusson, Japhet S., De Kalb, Ill. Horse-collar pad.....	379,506	Mar. 13	940	253	42	1150
Cusson, Japhet S., assignor of two-thirds to J. F. and C. E. Glieden, De Kalb, Ill. Sweat-pad fastener.....	383,388	May 22	2250	599	43	970
Cussons, John, Glen Allen, Va. Calendar.....	385,245	June 26	2105	539	43	1553
Custer, Levitt E., Dayton, Ohio. Pneumatic dental plugger.....	394,464	Dec. 11	1079	280	45	1226
Custer, Levitt E., Dayton, Ohio, assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Polishing-disk for dentists.....	387,581	Aug. 7	591	154	44	685
Cutcheon, James C., assignor to Cutcheon & Johnson, Lynn, Mass. Beating-out machine.....	384,893	June 19	1575	410	43	1436
Cutcheon & Johnson. (See Cutcheon, James C., assignor.)						
Cuthbertson, John, Lowell, Mass. Can or measure.....	376,768	Jan. 24	1521	400	42	314
Cutlan, Frederick. (See Lion and Cutlan.)						
Cutlan, John E., Wellingborough, county of Northampton, England. Nailing-machine for boots or shoes.....	388,640	Aug. 28	2204	{ 592 593 }	{ 44 }	1017
Cutler, Burnham B., Holt, Mo. Combined siding-hook and gage.....	389,501	Sept. 11	1057	281	44	1280
Cutler, Dwight C. (See Bartels, William H., assignor.)						
Cutler, Eben J., Cleveland, Ohio. Sight for fire-arms.....	392,108	Oct. 30	2742	745	45	568
Cutler, Henry, assignor to H. W. Cutler, North Wilbraham, Mass. Grain-weighing scale.....	393,888	Dec. 4	230	61.62	45	1116
Cutler, Henry H., Newton, Mass. Electric-wire insulator.....	336,111	July 17	1148	305	44	239
Cutler, Henry W. (See Cutler, Henry, assignor.)						
Cutler, James G., Rochester, N. Y. Air-cushion for letter-boxes.....	381,058	Apr. 10	1150	307	43	231
Cutler, James G., Rochester, N. Y. Letter-box connection.....	390,347	Oct. 2	212	56	45	45
Cutten, Elisha B., assignor to J. J. Steyler, trustee, Corry, Pa. Gas-burner.....	394,101	Dec. 4	532	143	45	1172
Cutter, George M. (See Laskey, Milton, assignor.)						
Cutter, Martin A., Allegheny, Pa. Lock-hinge.....	393,217	Nov. 20	1518	398	45	905
Cutter, William M., Marysville, Cal. Car-coupling.....	385,101	June 26	1900	484	43	1511
Cutting, Fred C., Lowell, Mass. Show-case.....	383,867	June 5	26	8	43	1176
Cutting, Willard H., St. Louis, Mo. Electric call.....	376,863	Jan. 24	1668	435	42	340
Cuttriss, Charles, New York, N. Y. Telegraphic recording apparatus.....	386,059	July 10	1061	284	44	217
Cwerdinski, Alphonse T., St. Louis, Mo. Spark-arrester.....	391,838	Oct. 30	2331	631	45	487
Cyclist's and Sportsman's Gun and Rifle Company. (See Bean, Edward D., assignor.)						
Cyclist's and Sportsman's Gun and Rifle Company. (See Bean, Edward D., assignor.) (Reissue.)						
Cyclone Pulverizer Company of the United States of America. (See Raymond, George and A., assignors.)						
Cybert, Joseph A., assignor of one-half to W. C. Clynometh, Rogers, Ark. Filter attachment for cistern-pumps.....	393,820	Dec. 4	122	34	45	1096
Cziner, Matyas, and R. Brettnier, New York, N. Y. Laid jewelry.....	389,446	Sept. 11	984	{ 263 264 }	{ 44 }	1268

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
D'Escalonne, Elisabeth. (See Quaranto and D'Escalonne.)						
D'Laoy, Alfred, assignor of one-half to J. K. Frothingham and H. W. Winans, New York, N. Y. Valve	388,766	Aug. 28	2392	646	44	1051
D'Unger, Robert, assignor of four-tenths to W. L. Copeland, Chicago, Ill. Telephonic transmitting-instrument.	399,575	Oct. 2	531	139	45	107
Dable, John, Chicago, Ill. Scale for weighing grain.	377,292	Jan. 31	2278	602 603	42	466
Dable, John, Chicago, Ill. Means for operating the slides of grain-hoppers.	388,641	Aug. 28	2206	593	44	1017
Dabney, William H. H., Oakland, Iowa. Attachment for windmill pump-rods.	376,710	Jan. 17	1420	373	42	286
Daboll, William V. (See Hope, John, Jr., assignor.)						
Daft, Leo, Plainfield, N. J. Electric conductor.	385,915	July 10	874	231	44	179
Daft, Leo, Plainfield, N. J. Traveler or trolley.	388,538	Aug. 28	2057	553	44	989
Daft, Leo, Plainfield, N. J. Electrical railway-conductor.	388,955	Sept. 4	292	59	44	1115
Daft, Leo, Plainfield, N. J. Armature for dynamo-electric machines.	393,745	Dec. 4	16	6	45	1075
Daft, Leo, Plainfield, N. J. Apparatus for removing scale from electric conductors.	394,062	Dec. 4	480	128	45	1163
Dages, Wendell, Murphys, Cal. Weeding-hoe.	392,412	Nov. 6	351	87	45	660
Daggett, Byron H., Buffalo, N. Y. Surgical table.	386,916	July 31	2362	620	44	490
Daggett, John C., Boston, assignor of one-half to C. H. Colburn, Milford, Mass. Channel-flap-laying machine.	393,097	Nov. 20	1347	351	45	870
Dahl & Co. (See Elsaesser, Emil, assignor.)						
Dahl, Ellert A. W., assignor of one-half to J. N. Longden, New York, N. Y. Marine paint.	389,875	Sept. 25	1646		44	1408
Dahlberg, Edwin T., Beloit, Wis. Collar-button.	386,002	July 10	983	262	44	201
Dahlman, George, Englewood, Ill. Hinge.	386,186	July 17	1250	333	44	260
Dalley, Asa G., assignor of one-half to J. D. Hawks, Detroit, Mich. Railway snow-plow.	379,938	Mar. 27	1616	430	42	1298
Daimler, Gottlieb, Cannstadt, Württemberg, Germany. Engine-driven vehicle.	376,638	Jan. 17	1314	344 345	42	265
Dain, Joseph, Jr., Kansas City, Mo. Mowing-machine.	382,592	May 8	1089	280 281	43	728
Dake, Charles R. (See Moser, George H., assignor.)						
Dake Engine Manufacturing Company. (See Dake, William F., assignor.)						
Dake, William F., assignor to Dake Engine Manufacturing Company, Grand Haven, Mich. Engine.	395,039	Dec. 25	2032	525	45	1491
Dale, D. I. (See Lane, David T., assignor.)						
Dale, James. (See Miller and Dale.)						
Dale, James, assignor of one-fourth to J. B. Miller, Chicago, Ill. Combined printing-press and ruling-machine.	380,191	Mar. 27	1976	529 530	42	1369
Dale, John H., assignor of one-half to E. D. Dougherty, Philadelphia, Pa. Cable-gripping apparatus for street-railways.	385,246	June 26	2106	539	43	1553
Daley, George J. (See Daley, John J. and G. J.)						
Daley, John J., Brooklyn, N. Y. Ironing-machine.	389,794	Sept. 18	1508	397 398	44	1375
Daley, John J. and G. J., Brooklyn, assignors, by mesne assignments, to J. H. Seed, New York, N. Y. Machine for making leather edgings, &c.	386,187	July 17	1251	332 334	44	260
Daley Manufacturing Company. (See Daley, Michael, assignor.)						
Daley, Michael, assignor to Daley Manufacturing Company, De Kalb, Ill. Harrow.	389,502	Sept. 11	1058	281	44	1281
Daley, Patrick H., Lynn, Mass. Leather-staking machine.	393,544	Nov. 27	2018	528	45	1012
Dallas, Madison, New Orleans, La. Conduit for electric wires.	391,587	Oct. 23	1967	530	45	405
Dallas, Madison, New Orleans, La. Conduit for electric railways.	393,622	Nov. 27	2134	558	45	1035
Daly, Charles M. (See Lee, James P., assignor.)						
Dalsheimer, Simon, Baltimore, Md. Boot or shoe.	379,452	Mar. 13	856	231	42	1135
Dalton, Daniel F., assignor to Chapman & Armstrong Manufacturing Company, Waterbury, Conn. Clasp.	378,238	Feb. 21	1352	356	42	776
Daly, Frederick F. (See Daly, John A., assignor.)						
Daly, James R., New Orleans, La. Anti-luctuator for gas-engines.	392,109	Oct. 30	2744	746	45	569
Daly, John A., Washington, D. C. Foil for dental linings, &c.	390,950	Oct. 9	1051	278	45	213
Daly, John A., assignor to F. F. Daly, Washington, D. C. Foil-lined dental plate.	390,654	Oct. 9	636	169	45	135
Daly, Oliver P., Smith Centre, Kans. Heating-stove.	376,076	Jan. 10	492	133	42	106
Dambmann, Charles F. W. (See Glaser, Charles, assignor.)						
Damm, Fredrick C., Decatur, Ill., assignor to Cleveland Target Company, Cleveland, Ohio. Means for packing flying targets.	377,603	Feb. 7	381	97	42	568
Damon, George, Cranford, N. J., and E. S. Peets, New York, N. Y., assignors, by mesne assignments, to A. N. Kellogg Newspaper Company, Chicago, Ill. Stereotype-plate.	392,188	Nov. 6	18	5	45	598
Damon, George, Cranford, N. J., and E. S. Peets, New York, N. Y., assignors, by mesne assignments, to A. N. Kellogg Newspaper Company, Chicago, Ill. Producing matrices for stereotypes.	392,189	Nov. 6	19	5	45	598
Dana, George E. (See Cooley, Orville, assignor.)						
Dana, Tucker & Co. (See Browne, George J., assignor.)						
Dana, Woodbury K. (See Bishop, Joseph, assignor.)						
Dancel, Christian. (See Valiant and Dancel.)						
Dancyger, Simon, Dayton, Ohio. Marking-tag.	379,054	Mar. 6	283	83	42	1019
Dancyger, Simon, Dayton, Ohio. Display-frame.	379,055	Mar. 6	284	83	42	1019
Dandrand, Joseph P., Virginia City, Nev. Key-hole guard.	391,693	Oct. 23	2103	570	45	433
Dane, Charles H., et al. (See Benson, Henry L., assignor.)						
Danforth, George E., assignor of one-half to A. B. Hoffman, Lynn, Mass. Machine for stretching hides.	387,402	Aug. 7	300	77	44	629
Danforth, Sarah A. (See Tracy, Milton S., assignor.)						
Dangler, David E. (See Ruppel and Dangler.)						
Dangler, David E., and H. Ruppel, Cleveland, Ohio. Valve mechanism for vapor-stove burners.	376,518	Jan. 17	1128	295	42	230
Daniel, William J., Jeffersonville, Ky. Device for hiving bees.	386,968	July 31	2434	640	44	505
Daniels, Arthur B. (See Blanchard, Napoleon, assignor.)						
Daniels, Eugene O., Springfield, Ohio. Lightning-rod attachment for windmills.	377,742	Feb. 14	588	151 152	42	621
Daniels, Eugene O., Springfield, Ohio. Apparatus for vaporizing and burning hydrocarbon oils.	394,343	Dec. 11	910	240	45	1255
Daniels, Fred H., Worcester, Mass. Reeling apparatus for wire rods.	379,104	Mar. 6	356	101 102	42	1032
Daniels, Fred H., Worcester, Mass. Reeling apparatus for rod-rolling mills.	381,217	Apr. 17	1384	370	43	285
Daniels, Fred H., Worcester, Mass. Apparatus for annealing wire.	385,247	June 26	2110	540	43	1554
Daniels, Fred H., Worcester, Mass. Apparatus for charging billets, bars, &c., into furnaces.	385,248	June 26	2112	540	43	1554
Daniels, Fred H., Worcester, Mass. Apparatus for charging billets, bars, &c., into furnaces.	385,249	June 26	2116	540	43	1555

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Co.	Vol.	Page.
Daniels, Fred H., Worcester, Mass. Apparatus for charging billets, bars, &c., into furnaces.....	385,250	June 26	2118	541	43	1556
Daniels, Fred H., Worcester, Mass. Apparatus for charging billets or bars into heating-furnaces.....	385,251	June 26	2120	541	43	1556
Daniels, Fred H., Worcester, Mass. Wire-rod-reel discharging mechanism.....	386,530	July 24	1779	470	44	372
Daniels, Fred H., Worcester, Mass. Rolling-mill.....	387,495	Aug. 7	435	113	44	657
Daniels, Fred H., Worcester, Mass. Rolling-mill apparatus.....	390,285	Oct. 2	119	34	45	27
Daniels, Joseph, Cleveland, Ohio. Open ring.....	382,953	May 15	1588	414	43	836
Daniels, Nathan H. (See Pearson, William E., assignor.)						
Daniels, Samuel, assignor of one-half to M. E. Dayton, Chicago, Ill. Burner for gas or vapor stoves.....	377,547	Feb. 7	297	76	42	552
Daniels, Samuel, assignor of one-half to M. E. Dayton, Chicago, Ill. Vapor-burner.....	377,548	Feb. 7	299	76, 77	42	552
Daniels, William H., <i>et al.</i> (See Trowbridge, Augustus S., assignor.)						
Daniels, William H., Southsea, England. Construction of ships, &c.....	376,517	Jan. 17	1127	295	42	230
Daniels, William H., Chicago, Ill. Composition for preserving food.....	386,386	July 17	1543	.....	44	315
Danielson, Carl M., Rockford, Ill. Wire-stretcher.....	390,211	Oct. 2	24	7	45	8
Danielson, Carl K., Rockford, Ill. Soldering-iron.....	381,533	Apr. 24	1866	493	43	398
Dann Bros. & Company. (See Dann, John A., assignor.)						
Dann, John A., assignor to Dann Bros. & Company, New Haven, Conn. Paneling-machine.	383,711	May 29	2732	730	43	1074
Danner, Frederick. (See Bugbee and Danner.)						
Danner, John, assignor to J. Danner Manufacturing Company, Canton, Ohio. Clothes-rack.....	384,194	June 5	523	142	43	1222
Danner Manufacturing Company, John. (See Danner, John, assignor.)						
Dappen, Mathias. (See Gindorff, Matthew, assignor.)						
Darby, Elijah F. (See Blackburn, Albert B., assignor.)						
Darby, Elijah F. (See Blackburn and Darby.)						
Dargelos, Marie J. A., Aix-en-Provence, France. Preparing animal-hairs for felting.....	390,348	Oct. 2	215	.....	45	45
Darker, William. (See Veerkamp, Leopold, and Darker.)						
Darley, Cecelia B., Philadelphia, Pa. Toy bedstead.....	390,008	Sept. 25	1832	485	44	1445
Darling, Charles E., and H. Free, Lewiston, Me. Tobacco-pipe.....	384,681	June 19	1258	330	43	1377
Darling, Esik R. (See Stiner and Darling.)						
Darling, Henry M., assignor to A. S. Davis, Seneca Falls, N. Y. Circular sawing machine.	389,061	Sept. 4	371	97	44	1143
Darling, John G., <i>et al.</i> (See Clarke, Reuben, assignor.)						
Darling, Samuel, Providence, R. I. Protractor.....	376,430	Jan. 17	1000	262	42	207
Darr, Emory Q., Shelbyville, Ind. Sweat-pad fastener.....	378,239	Feb. 21	1353	357	42	776
Darrach, Francis L., Philadelphia, Pa. Hatchway.....	376,864	Jan. 24	1669	436	42	340
Dart, J. W. (See Swarts, Henry J., assignor.)						
Dart, Joseph, Brooklyn, N. Y., and W. I. Lewis, Walpole, Mass.; said Lewis assignor to said Dart. Yarn-hanking machine.....	388,267	Aug. 21	1666	444	44	908
Dart, Lewis, assignor to Hartford Novelty Company, Hartford, Conn. Salt-cellar.....	393,324	Nov. 20	1678	445	45	936
Darter, John T. (See Ross and Darter.)						
Dartt, William A., Milwaukee, Wis. Filling teeth.....	386,692	July 24	1994	527	44	414
Dashiell, William W., Bergen Point, N. J. Manufacture of gas.....	376,944	Jan. 24	1774	466	42	362
Daudelin, Jean B., Fall River, Mass. Violin tail-piece.....	387,494	Aug. 7	424	113	44	657
Daudelin, Jean B., Fall River, Mass. Self-threading loom-shuttle.....	388,539	Aug. 28	2058	554	44	989
Daudelin, Jean B., Bristol, Mass. Self-threading shuttle for looms.....	388,540	Aug. 28	2059	554	44	989
Daul, Anthony, Brooklyn, assignor to G. Heerbrandt, New York, N. Y. Churn.....	380,553	Apr. 3	373	106	43	76
Davenport, Benjamin R., assignor to Calumet Fastener Company, Chicago, Ill. Corset-fastener.....	380,192	Mar. 27	1980	530	42	1369
Davenport, Benjamin R., assignor to Calumet Fastener Company, Chicago, Ill. Buggy-curtain fastener, &c.....	394,758	Dec. 18	1561	408	45	1393
Davenport, Frank W., and P. W. Tillinghast, Providence, R. I. Outline-transfer tool.....	388,841	Sept. 4	46	13	44	1081
Davenport, Morris, Englishtown, assignor of one-half to C. E. Paxton, Jamesburg, N. J. Wash-boiler.....	388,956	Sept. 4	223	59	44	1115
Davenport, William H., Norwich, Conn. Set-trigger for fire-arms.....	390,286	Oct. 2	122	34	45	27
Daverio, Gustav, Zurich, Switzerland. Driving-gear for flour-sifters.....	380,249	Mar. 27	2058	550	42	1386
Davey, Henry, Westminster, England. Pumping-engine.....	391,457	Oct. 23	1793	479	45	367
Davey, Petherick, assignor of three-fourths to S. W. Leedom, Philadelphia, Pa. Berth, chair, &c.....	383,868	June 5	27	9	43	1126
David, Charles A. (See Hanlon, Joseph P. A., assignor.)						
David, William K., Chicago, Ill. Calendar.....	375,736	Jan. 3	20	5, 6, 7	42	7
David, William K., Chicago, Ill. Calendar.....	379,197	Mar. 6	473	134	42	1056
David, William K., Chicago, Ill. Blacking-box.....	385,916	July 10	876	232	44	179
Davids, Charles H., Brooklyn, N. Y. Registering and numbering device.....	375,804	Jan. 3	109	31	42	25
Davids, Theodor, Hanover, Prussia, Germany. Polishing apparatus for wood, &c.....	385,171	June 26	1991	510	43	1530
Davidson, Alexander, Chicago, Ill. Steam-separator.....	377,992	Feb. 14	978	255	42	698
Davidson, Alexander, Chicago, Ill. Steam-separator. (Reissue).....	10,914	Mar. 27	2129	569	42	1400
Davidson, Francis P., South Chicago, Ill. Car-wheel.....	376,865	Jan. 24	1670	436	42	341
Davidson, George R., Brockway, Mich. Feed-regulator.....	380,095	Mar. 27	1847	491	42	1343
Davidson, Joseph F., assignor to E. N. Hatcher, Columbus, Ohio. Manufacture of thimble-skins for axles.....	381,218	Apr. 17	1386	370	43	286
Davidson, John, Philadelphia, Pa., assignor to T. H. Lynn, Mount Holly, N. J., and C. C. Pettit, Philadelphia, Pa. Rug or mat.....	386,628	July 24	1904	503	44	398
Davidson, Marshall T., Brooklyn, N. Y. Triple-expansion engine.....	376,639	Jan. 17	1316	346	42	266
Davidson, Marshall T. B. (See Warne, Elijah, assignor.)						
Davidson, Otis E., Nashville, Tenn. Steam-motor.....	378,663	Feb. 28	1970	523	42	905
Davidson, Otis E., Nashville, Tenn. Churn.....	392,012	Oct. 30	2581	702	45	537
Davidson, Otis E., assignor of two-thirds to C. A. Black and W. W. Martin, Nashville, Tenn. Well-pump.....	386,456	July 24	1663	439	44	352
Davidson, Sarah E., Glasgow, Ky. Car-coupling.....	385,598	July 3	400	102	44	78
Davidson, William E. (See Porter, Daniel R., assignor.)						
Davidson, William J., assignor of two-thirds to R. E. and C. L. Hatcher, Ronald, Va. Washing-machine.....	394,913	Dec. 18	1844	478	45	1446
Davie, James H., Walton, N. Y. Automatic wagon-brake.....	389,447	Sept. 11	985	264	44	1268
Davie, William M. (See Hodges and Davie.)						
Davies, Adrian D. (See Lane and Davies.)						
Davies, Dixon H., Leeds, county of York, and J. M. Tourtel, Westminster, county of Middlesex, England. Toll apparatus for producing electric light.....	385,215	Dec. 25	2333	597	45	1545
Davies, James, Wednesbury, county of Stafford, England. Disk water-meter.....	384,024	June 5	266	76	43	1173
Davies, James, Mitchell, Dak. Ter. Ventilating-cover.....	388,024	Aug. 21	1258	341	44	831

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Davies, John R., Pullman, Ill. Sand-molding machine.....	382,217	May 1	493	{ 128 129 }	43	604
Davies, John R., Pullman, Ill., assignor to Allen Paper Car Wheel Company, of New Jersey. Apparatus for casting car-wheels.....	381,115	Apr. 17	1253	336	43	260
Davies, Lewis W., Eureka, Nev. Obtaining the precious metals from speiss.....	384,682	June 19	1258	.....	43	1377
Davies, Thomas, Peabody, Mass. Apparatus for bleaching and dyeing.....	383,869	June 5	28	9	43	1126
Davies, Thomas A., New York, N. Y. Central rail-fastening.....	376,945	Jan. 24	1776	467	42	362
Davies, Thomas A., New York, N. Y. Fish-plate.....	377,885	Feb. 14	825	210	42	667
Davies, Thomas A., New York, N. Y. Railway-spike.....	394,678	Dec. 18	1440	375	45	1366
Davies, Thomas A., New York, N. Y. Cushion-plate for railway-rails.....	394,679	Dec. 18	1441	375	45	1367
Davies, Walter D., Brooklyn, N. Y., assignor to Ansonia Clock Company, Ansonia, Conn. Stem winding and setting watch.....	381,219	Apr. 17	1387	371	43	286
Davies, William, Liverpool, county of Lancaster, England, assignor of one-half to J. E. Hannah, Winnipeg, Canada. Apparatus for regulating the supply of liquids for water-closets.....	377,293	Jan. 31	2280	{ 602 603 }	42	467
Davis, Adelbert S. (See Darling, Henry M., assignor.)						
Davis, Arthur H., and G. Keith, Earlville, Ill. Horse-collar fastening.....	384,927	June 5	573	156	43	1232
Davis, Augustus C. L., Madison, Neb. Sliding-gage.....	390,459	Oct. 2	366	94	45	77
Davis, Calvin R., assignor to Kimberlin Manufacturing Company, Indianapolis, Ind. Lifting-spring for cultivators.....	377,993	Feb. 14	979	256	42	699
Davis, Charles A., Washington, D. C. Railway-car.....	375,989	Jan. 3	360	96, 97	42	74
Davis, Charles A., Washington, D. C. Railway-car.....	383,712	May 29	2733	721	43	1074
Davis, Charles E., et al. (See Church, Walter A., assignor.)						
Davis, Charles E., assignor to J. W. Norris, Chicago, Ill. Seal-lock.....	381,534	Apr. 24	1867	493	43	398
Davis, Charles R., J. F. Essler, and P. De Long, St. Peter, Minn. Railway-switch.....	388,842	Sept. 4	48	13, 14	44	1081
Davis, Crit, Harrodsburg, Ky. Overcheck bridle-bit.....	388,268	Aug. 21	1667	446	44	909
Davis, Daniel B., and J. J. Fisher, Laramie, Wyo. Ter. Car-coupling.....	395,040	Dec. 25	2044	525	45	1491
Davis, David, et al. (See Burdall, Stephen, assignor.)						
Davis, Edward, assignor of one-half to E. B. Welch, Cambridge, Mass. Electric signal or alarm.....	386,772	July 24	2108	{ 553 554 }	44	434
Davis, Edward, Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Individual signaling apparatus for telephones.....	391,839	Oct. 30	2333	632	45	487
Davis, Edward E., Detroit, Mich. Fifth-wheel for vehicles.....	380,868	Apr. 10	850	230	43	175
Davis, Edwin F., Seneeca, Kans., assignor of one-half to C. J. Nesbitt, Kansas City, Mo. Mail-bag.....	379,939	Mar. 27	1617	430	42	1298
Davis, Ernest J. S., Great Bend, Kans. Barrel-truck.....	381,762	Apr. 24	2185	571	43	460
Davis, Everette O., Jersey, Ga. Plow-fender.....	380,998	Apr. 10	1057	279	43	214
Davis, Francis M., Denver, Colo. Hoisting apparatus.....	394,344	Dec. 11	912	240	45	1256
Davis, Franklin T., Mount Vernon, N. Y. Checkrein-holder.....	376,640	Jan. 17	1317	346	42	266
Davis, Frederick E., Gladbrook, Iowa. Draft-equalizer.....	377,018	Jan. 31	1881	495	42	390
Davis & Furber Machine Company. (See Stone, Joseph H., assignor.)						
Davis & Furber Machine Company. (See Stone, Joseph M., assignor.)						
Davis & Furber Machine Company. (See Wright, Elijah, assignor.)						
Davis, G. Howlett, Washington, D. C. Paper-feeding machine.....	387,582	Aug. 7	592	{ 154 155 }	44	685
Davis, George W., Hot Springs, Ark. Track-scraper for street-railways.....	378,292	Feb. 21	1436	374	42	790
Davis, Henry A., Utica, N. Y. Bicycle.....	379,373	Mar. 13	740	201	42	1111
Davis, Henry A., Lowell, Mass. Machine for opening cotton.....	384,826	June 19	1478	3-6	43	1419
Davis, Henry C., Terre Haute, Ind. Hydrocarbon-retort vaporizer.....	388,843	Sept. 4	51	14	44	1082
Davis, Henry T., New York, N. Y. Quilting attachment for sewing machines.....	377,242	Jan. 31	2201	580	42	452
Davis, Herbert W., and D. E. Gurney, Falconer, N. Y. Warning-pan.....	392,013	Oct. 30	2582	702	45	537
Davis, Hilar D., Bradford, Vt. Honey-box.....	394,160	Dec. 11	621	166	45	1199
Davis, Isaac P. (See Patterson and Davis.)						
Davis, James E., assignor to S. H. Kimball, Boston, Mass. Fusible plug.....	394,102	Dec. 4	536	143	45	1173
Davis, James H., Danville, Ky. Gate-hinge.....	387,771	Aug. 14	864	223	44	744
Davis, James S., assignor to N. B. Rappleye, Chicago, Ill. Display-rack.....	391,252	Dec. 11	765	202	45	1236
Davis, James W., El Dorado, Kans. Steam-cooker.....	385,794	July 10	689	180	44	143
Davis, Jay C., assignor of one-half to G. Suebert, Marshfield, Wis. Whiffletree-hook.....	380,621	Apr. 3	473	133	43	96
Davis, Jehu, Bingham, Ind. Pulverizer and cultivator.....	392,190	Nov. 6	20	6	45	598
Davis, John. (See Abrahams, John W., assignor.)						
Davis, John, Allegheny, Pa. Pipe-coupling.....	381,913	May 1	92	6	43	519
Davis, John, Allegheny, Pa. Pipe-coupling.....	382,514	May 8	963	243	43	702
Davis, John, Allegheny, Pa. Churn-dasher.....	385,698	July 10	547	142	44	114
Davis, John, Allegheny, Pa. Apparatus for illustrating the form of the solar system.....	391,959	Dec. 25	1914	495	45	1468
Davis, John, Providence, R. I. Bobbin-holder for spinning-spindles.....	390,572	Oct. 2	528	138	45	106
Davis, John H., Wilmington, N. C. Car-coupling.....	392,787	Nov. 13	912	223	45	776
Davis, John R., Jr., Neenah, Wis. Chop-grader.....	380,096	Mar. 27	1848	492	42	1343
Davis, John R., Jr., Neenah, Wis. Chop-separator.....	380,097	Mar. 27	1850	{ 492 493 }	42	1344
Davis, John R., Wakefield Station, assignor of one-half to C. E. Carter, Appomattox County, Va. Bale-tie.....	378,574	Mar. 6	27	7	42	972
Davis, John S., Cleveland, Ohio. Packing mechanism for grain-binders.....	388,642	Aug. 28	2206	533	44	1017
Davis, John S., Cleveland, Ohio. Grain-binding harvester-frame.....	392,721	Nov. 13	799	{ 203 204 205 }	45	755
Davis, John S., Toledo, assignor to A. E. Sumner, Cleveland, Ohio. Harvester.....	384,025	June 5	267	76, 77	43	1173
Davis, John S., assignor to A. E. Sumner, Cleveland, Ohio. Harvester.....	388,765	Aug. 28	2384	{ 643 644 }	44	1051
Davis, John S., Cleveland, assignor to Davis Platform Binder Company, Rockport, Ohio. Reel-support for harvesters.....	389,837	Sept. 18	1564	414	44	1385
Davis, John T. (See Eymon and Davis.)						
Davis, Josephine G., New York, N. Y. Portable vapor and hot-air bath apparatus.....	377,886	Feb. 14	826	211	42	667
Davis, Leonard D., Erie, Pa. Steam-engine cross-head.....	394,345	Dec. 11	911	210	45	1256
Davis, Martin V., Harrison, Ark. Device for raising and lowering weights.....	378,293	Feb. 21	1437	375	42	791
Davis, Martin V. B., assignor of one-half to C. L. Glines, Harrison, Ark. Machine for hoisting heavy weights.....	387,026	Aug. 14	658	170	44	705
Davis, Minor M., Brooklyn, N. Y. Static compensator for telegraphs.....	394,220	Apr. 17	1388	371	43	2-6
Davis, Monroe, Oak Valley, Kans. Wash-boiler.....	392,315	Nov. 6	198	51	45	631
Davis, Nathan H., Philadelphia, Pa. Die for making car-spring plates.....	378,773	Feb. 28	2118	{ 559 560 }	42	932
Davis, Nathan H., Philadelphia, Pa. Car-spring.....	385,917	July 10	877	232	44	180
Davis, Nathan H., Philadelphia, Pa. Car-spring.....	390,069	Sept. 25	1028	508	44	1465
Davis, Orion L., Rochester, N. Y. Door-guard for elevator-wells.....	387,496	Aug. 7	440	{ 114 115 }	44	659



*Alphabetical list of patentees—Continued.*

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. fr.	Vol.	Page.
Davis Platform Binder Company. (See Davis, John S., assignor.)						
Davis, Reese O., Milan, Mo., assignor to Stoddard Manufacturing Company, Dayton, Ohio. Combined hay rake and ricker.	385,252	June 26	2122	{ 541 542 }	43	1557
Davis, Richard H., assignor to C. C. Bradley, Syracuse, N. Y. Vehicle-spring attachment.	390,573	Oct. 2	529	139	45	106
Davis, Samuel, Montreal, Quebec, Canada. Car-truck.	376,077	Jan. 10	493	133	42	106
Davis, Samuel, Las Vegas, N. Mex. Ter. Wool-washing machine.	376,866	Jan. 24	1671	436	42	341
Davis, Thomas C., Philadelphia, Pa. Car-spring.	385,918	July 10	878	232	44	180
Davis, Thomas J. S., Davis Wharf, Va. Grapnel-tongs.	390,758	Oct. 9	781	208	45	161
Davis, Van R., Temple, Ga. Car-coupling.	376,734	Jan. 24	1458	384	42	302
Davis, William, Montreal, Quebec, Canada. Buggy-top.	377,604	Feb. 7	382	97	42	568
Davis, William C., Lynn, assignor of one-half to E. B. Ball, North Reading, Mass. Shoe-jack.	386,867	July 31	2290	602	44	477
Davis, William M. (See Sabotka, Blumer, and Davis.)						
Davis, William T., Battle Creek, Mich. Sash-fastener.	376,431	Jan. 17	1001	262	42	207
Davis, Willis, assignor of one-half to A. D. Rose, Woodstock, N. Y. Hobby-horse.	381,116	Apr. 17	1254	336	43	261
Davis, Zebulon, Cleveland, Ohio. Vapor-stove burner.	384,511	June 12	1008	262	43	1320
Davis, Zebulon, Cleveland, Ohio. Vapor-stove.	386,693	July 24	1995	527	44	414
Davis, Zebulon, Cleveland, Ohio. Wick-raiser.	387,684	Aug. 14	997	260	44	771
Davis, Zebulon, Cleveland, Ohio. Wick-raiser for central-draft lamps.	394,465	Dec. 11	1081	280	45	1286
Davis, Zebulon, assignor to Consolidated Vapor Stove Company, Cleveland, Ohio. Vapor-stove.	383,870	June 5	30	10	43	1127
Davison, Charles G., assignor of one-half to D. W. Camp, Union City, Pa. Flue-cleaner for steam-boilers.	379,564	Mar. 20	1026	274	42	1175
Davison, George W., and J. Buckley, Rochester, N. Y. Shaping-machine.	384,963	June 26	1671	434	43	1464
Davison, James E. (See Boyle, James W., assignor.)						
Davison, Joseph A., Polo, Ill. Combined photographic camera and plate-holder.	376,798	Jan. 24	1568	412	42	323
Davison, William N. (See Shull, Samuel, assignor.)						
Davy, Edmund J., Manokin, Md. Center-board for vessels.	390,070	Sept. 25	1929	509	44	1465
Davy, Joseph, Oakland, Cal. Packing-case.	376,519	Jan. 17	1130	295	42	231
Davy, Joseph, Oakland, Cal. Box-fastener.	386,188	July 17	1253	334	44	260
Davy, John G., De Kalb, Ill. Hemming attachment for sewing-machines.	392,413	Nov. 6	352	87	45	661
Davy, John W., assignor to Excelsior Iron Fence Company, (limited,) Kingston, Ontario, Canada. Fence-post.	381,873	Apr. 24	2466	615	43	494
Davy, William, Kenosha, Wis. Feeding apparatus for use in burning clay to make ballast.	389,551	Sept. 18	1139	{ 299 300 }	44	1303
Daw, Albert W. and Z. W., Aamdals Kobbervoerk, Skafse,ovre Thelemarken, Norway. Rock-drill.	389,740	Sept. 18	1437	376	44	1359
Daw, Zacharias W. (See Daw, Albert W. and Z. W.)						
Dawes, Alfred, Chelsea, Mass. Support for incandescent electric lights.	394,680	Dec. 18	1442	376	45	1367
Dawes, John L., Pittsburg, Pa. Furnace for heating glass labels.	390,844	Oct. 9	904	239	45	184
Dawes, John L., and W. G. Walter, Pittsburg, Pa. Druggist's sign.	383,445	May 29	2338	621	43	993
Dawes, Thomas W., assignor of one-half to H. H. Linfert, Cincinnati, Ohio. Key-hole guard.	390,158	Sept. 25	2063	550	44	1493
Dawley, John M., Chillicothe, assignor of one-half to E. S. Evans, Columbus, Ohio. Ice-cream freezer.	386,112	July 17	1149	305	44	239
Dawson, George W. (See Booth and Dawson.)						
Dawson, George W., and B. F. Cleveland, Sac City, Iowa. Car-coupling.	393,545	Nov. 27	2019	528	45	1013
Dawson, Henry T., Salcombe, county of Devon, England. Gas-engine.	312,191	Nov. 6	21	6	45	599
Dawson, Joseph R., Knoxville, assignor of one-half to H. C. Langebartsels, Star, Iowa. Road-grading machine.	384,894	June 19	1577	410	43	1437
Dawson, William H., Harlan, Iowa. Car-coupling.	378,194	Feb. 21	1272	337	42	761
Dawson, William H., Lawrence, Mass. Car-window.	387,403	Aug. 7	302	77	44	630
Day, Abraham, Bloomfield, N. J. Machine for cutting dough.	384,964	June 26	1673	435	43	1464
Day, Abraham, Bloomfield, N. J. Portable oven.	385,919	July 10	879	232	44	180
Day, Andrew J., et al. (See Roberts, Henry, assignor.)						
Day, Anson W., and L. A. Rogers, Grand Rapids, Mich. Artificial tooth.	388,269	Aug. 21	1668	446	44	909
Day, B. Frank, Sellersville, Pa. Gas-governor.	384,132	June 5	428	119	43	1203
Day, Edward R., London, England, and C. H. Colt, Hartford, Conn.; said Day assignor to said Colt. Ball trap and target.	389,741	Sept. 18	1440	376	44	1360
Day, George H., Hartford, Conn., assignor to Pope Manufacturing Company, Portland, Me. Step for velocipedes.	388,480	Aug. 28	1979	531	44	974
Day, Joseph, assignor to J. Koon, New Haven, Conn. Corset-clasp.	380,193	Mar. 27	1981	531	42	1369
Day, Selden A., Bowling Green, Ohio, assignor to American Electric Arms and Ammunition Company, New York, N. Y. Electric primer.	389,448	Sept. 11	986	{ 264 265 }	44	1268
Day, Theodore D., Elizabeth, N. J. Suspenders.	379,374	Mar. 13	742	201	42	1112
Day, Truman H., assignor to himself and Wilcox Manufacturing Company, Aurora, Ill. Rail-support for door-bangers.	394,643	Dec. 18	1379	360	45	1355
Dayan, Squire C., assignor to W. E. Hopkins, Syracuse, N. Y. Tampon.	393,546	Nov. 27	2020	528	45	1013
Dayton, Melville E. (See Daniels, Samuel, assignor.)						
Dayton, Melville E. (See Hardy, Dexter D., assignor.)						
Dayton, William H., assignor to Excelsior Needle Company, Torrington, Conn. Machine for swaging needle-blanks.	376,144	Jan. 10	597	159	42	125
De Aguiar, Abelardo G., Havana, Cuba. Bagasse drier and furnace.	380,999	Apr. 10	1058	{ 279 280 }	43	214
De Arment, George B., Evansburg, Pa. Bolt-cutter.	388,957	Sept. 4	224	60	41	1115
DeBaun, Benoni T., et al. (See Rice, James, assignor.)						
De Benardos, Nicholas, St. Petersburg, Russia. Working metals by electricity.	379,453	Mar. 13	857	232	42	1135
De Benardos, Nicholas, St. Petersburg, Russia. Secondary battery.	380,554	Apr. 3	374	107	43	77
De Bernge & Co. (See Edmeston, Gray D., assignor.)						
DeBorger, Frank J., Babylon, assignor of one-half to T. F. Neville, New York, and S. Moran, Babylon, N. Y. Rendering cellars water-proof.	385,103	June 26	1903	485	43	1512
De Butts, John, Centerville, Md. Corn-planter.	378,164	Feb. 21	1233	324	42	753
De Camp, William H., Grand Rapids, Mich. Surgeon's splint.	385,507	July 3	263	67	44	53
De Cew, William, Aylmer, Ontario, Canada. Car-coupling.	381,914	May 1	23	6	43	519
De Chardonnet Hilaire, Besancon, Doubs, France. Artificial silk and method of and apparatus for making the same.	394,559	Dec. 18	1232	{ 322 323 324 }	45	1328
De Coar, Thomas, and W. Keast, Russell Gulch, Colo. Automatic car-brake.	379,687	Mar. 20	1215	{ 321 322 }	42	1211
De Coar, Thomas, and W. Keast, Russell Gulch, Colo. Cap-protector for blasting-cartridges.	380,477	Apr. 3	250	69	43	51
De Coninck, Frank, San Francisco, Cal. Asbestos paint.	394,641	Sept. 18	1283		44	1328
De Coppet, Francis V., New Orleans, La. Automatic can-filler for ice-machines.	375,926	Jan. 3	268	72	42	56
De Crow, Marion G. (See Powell and De Crow.)						
De Ferranti, Sebastian Z., London, England. Means for distributing electric energy.	389,795	Sept. 18	1511	399	44	1375
De Ferranti, Sebastian Z., London, England. Means for distributing electric energy.	389,838	Sept. 18	1566	415	44	1386



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
De Ferranti, Sebastian Z., Hampstead, county of Middlesex, England. Conveying electric energy	394,837	Dec. 18	1712	444	45	1422
De Ferranti, Sebastian Z., Hampstead, county of Middlesex, England. Conveying electric energy	394,838	Dec. 18	1713	444	45	1422
De Freest, George E., and G. W. Wynkoop, Troy, N. Y. Packet-folding machine	377,669	Feb. 7	479	123 121 125	42	586
De Forest, Lockwood. (See Baynes, John, assignor.)						
De Forest, Thomas B., Birmingham, Conn. Pencil-case	393,965	Dec. 4	338	91	45	1136
De Forest, Thomas B., Birmingham, Conn., assignor of one-half to W. H. Fox, New York, N. Y. Toy wind-wheel	390,655	Oct. 9	637	169	45	135
De Golyer, Norman T., Waupun, Wis. Railway-signal	394,466	Dec. 11	1082	281	45	1286
De Grain, Reinhold F., Washington, D. C. Die and dice-box	386,577	July 24	1840	486	44	3-4
De Gronsilliers, Hector, Potsdam, Prussia, Germany. Treating sludge acid	378,774	Feb. 28	2120		42	932
De Jonge, Maria P., Brussels, Belgium. Corset	375,990	Jan. 3	363	97	42	74
De la Bastie, François B. A. R. (See Flotron and De la Bastie.)						
De La Chapelle, Ernest. (See Pearce and De La Chapelle.)						
De La Sauce, Ernst., assignor to E. De La Sauce & Kloss, Berlin, Germany. U-shaped metal plate for metal structures	376,979	Jan. 24	1818	478	42	370
De La Sauce & Kloss, E. (See De La Sauce, Ernst, assignor.)						
De La Vergne Refrigerating Machine Company. (See Block, Louis, assignor.)						
De Lamarre, Charles B., Biloxi, Miss. Oyster-knife	390,759	Oct. 9	782	208	45	162
De Lamarre, Charles B., Biloxi, Miss. Pulley-block	390,845	Oct. 9	905	239	45	184
De Lamater, C. H. (See Rider, Thomas J., assignor.)						
De Lamater, Cornelius H. (See Hughes, James, assignor.)						
De Lamater, Cornelius H., et al. (See Rider, Thomas J., assignor.)						
De Lamater, William, et al. (See Rider, Thomas J., assignor.)						
De Land, Levi J., Fairport, N. Y. Bulletin-board	381,342	Apr. 17	1572	422	43	323
De Laval, Gustaf, Stockholm, Sweden. Motor for operating centrifugal separators	379,690	Mar. 20	1221	323	42	1212
De Lisser, Richard L., Brooklyn, N. Y., assignor to Centrifugal Filter Company, of New York. Centrifugal filter	377,020	Jan. 31	1883	496	42	390
De Little, Robert D., near Melbourne, Victoria. White-letter type	387,865	Aug. 14	998	260	44	772
De Long & French. (See Reed, James L., assignor.)	394,346	Dec. 11	915	241	45	1256
De Long, Marshall N. (See Tebean and De Long.)						
De Long, Peter. (See Davis, Essler, and De Long.)						
De Long, Peter, assignor of one-half to G. E. Cowell, Elwood, Ill. Railway-switch	394,681	Dec. 18	1443	376	45	1367
De Mayo, Louis A. (See Kennedy and De Mayo.)						
De Mayo, Louis A., Jersey City, N. J. Combined freight bucket and truck	385,849	July 10	773	205	44	157
De Meyer, Costi, Budweis, Bohemia, Austria-Hungary. Pencil-holder	377,194	Jan. 31	2121	559	42	438
De Mier, Electric Train Signal Company. (See De Mier, John R., assignor.)						
De Mier, John R., Las Cruces, N. Mex. Ter. Electric train-signaling apparatus	381,343	Apr. 17	1573	422	43	323
De Mier, John R., Las Cruces, N. Mex. Ter. Electric train-signaling apparatus	381,344	Apr. 17	1575	422	43	324
De Mier, John R., Las Cruces, N. Mex. Ter., assignor, by mesne assignments, to De Mier Electric Train Signal Company. Electrical signal apparatus	380,646	Apr. 3	505	141	43	103
De Mier, John R., Las Cruces, N. Mex. Ter., assignor, by mesne assignments, to De Mier Electric Train Signal Company. Electric signal for railway-cars	380,647	Apr. 3	507	142	43	103
De Murguiondo, Carter. (See Ush, James M., assignor.)						
De Panw, N. T. (See Schefold, Frank, assignor.)						
De Planque, Edward, Hoboken, N. J. Plaque or panel	386,970	July 31	2436	640	44	506
De Puy, William H., New York, N. Y. Tack or nail holder	383,516	May 29	2455	650	43	1015
De Redon, Constant F., New York, N. Y. Electric railway-signal	382,515	May 8	964	245	43	702
De Redon, Constant F., New York, N. Y. Railway-signal	385,920	July 10	880	233	44	180
De Redon, Constant F., assignor to Pearce & Jones, New York, N. Y. Electric bell	381,765	Apr. 24	2189	572	43	461
De Rontkowsky, M. (See Zdzlarski, Anthony, assignor.)						
De Rycke, J. Joseph, New York, N. Y. Crank-pump	378,665	Feb. 28	1973	523 524	42	905
De Rycke, J. Joseph, New York, N. Y. Separator	379,009	Mar. 6	218	59	42	1007
De Silva, José J., Guanajuato, Guanajuato, Mexico. Chain-pump	380,425	Apr. 3	172	47	43	35
De Vilbiss, Allen, Toledo, Ohio. Atomizer	378,357	Feb. 21	1525	399	42	809
De Villepigne, August E. D. F., Paris, France. Apparatus for recording the direction and gradients of a road	382,868	May 15	1467	385	43	812
De Vilmorin, Charles H. P. L., Paris, France. Means for hermetically closing jars, &c.	378,498	Feb. 28	1738	458	42	859
De Vry, Bernhard I. H., and J. Schreiber, Chicago, Ill. Device for simultaneously moving double doors	376,946	Jan. 24	1777	467	42	362
De Vry, Bernhard I. H., and J. Schreiber, Chicago, Ill. Device for simultaneous movement of double doors	376,947	Jan. 24	1777	467	42	362
De Waele, Auguste, Ghent, Belgium. Fire-escape	391,358	Oct. 16	1651	436 437	45	331
De Willers, Leopold C., Brooklyn, assignor of one-half to P. Floquet, New York, N. Y. Composition for softening and renovating leather	381,680	Apr. 24	2072		43	439
De Witt, Alvin, Elliott, Iowa. Reel for fence-wire	391,404	Oct. 23	1718	457	45	352
De Witt, Alvin, Elliott, Iowa. Machine for splicing fence-wire	393,423	Nov. 27	1821	480	45	972
De Witt, Caleb S., Lockport, Ill. Price and inventory check	384,237	June 12	504	161	43	1245
De Witt, Caleb S., Lockport, Ill. Wrench	391,588	Oct. 23	1968	530	45	405
De Witt, Ezra. (See Howe, Thomas B., assignor.)						
De Zeng, Henry L., Geneva, N. Y. Metallic railway-tie and fastening for rails	380,623	Apr. 3	474	134	43	96
De Zuccato, Eugenio, London, England. Apparatus for use in producing copies of writings, drawings, and the like	389,452	Sept. 11	994	266	44	1269
Deakins, William E., Jamestown, Mo. Hay-rack	388,025	Aug. 21	1258	341 342	44	831
Dean, Charles S., assignor to G. B. Cluett, Bro. & Co., Troy, N. Y. Inserting bosoms in shirts	386,425	July 17	1612	423	44	333
Dean, Cyrus S., Fort Erie, Ontario, Canada. Car-heater	392,147	Oct. 30	2800	760 761	45	580
Dean, Cyrus S., assignor to G. W. Dean, Fort Erie, Ontario, Canada, and C. H. Woodruff, Buffalo, N. Y. Fire-extinguisher	380,194	Mar. 27	1982	531	42	1370
Dean, Cyrus S., assignor to G. W. Dean, Fort Erie, Ontario, Canada, and C. H. Woodruff, Buffalo, N. Y. Air-compressor	380,195	Mar. 27	1983	531	42	1370
Dean, Francis W., assignor of one-half to E. D. Leavitt, Jr., Cambridge, Mass. Boiler	385,102	June 26	1901	485	43	1511
Dean, George W., et al. (See Dean, Cyrus S., assignor.)						
Dean, Henry W., Sharon, assignor of two-thirds to L. R. Lothrop, Lynn, and S. A. Butler, Boston, Mass. Nailing-machine	380,645	Apr. 3	502	141	43	103

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Dean, John, assignor of one-fourth to G. H. Kingsley, Cleveland, Ohio. Material for cleaning and polishing metals.....	389,552	Sept. 18	1142	.....	44	1304
Dean, Mills, <i>et al.</i> (See Toulmin, Morton, assignor.)						
Dean, Robert A., Tyler, Tex. Corn-planter attachment.....	392,911	Nov. 13	1077	279	45	811
Dean, William E., Minneapolis, Minn. Boiler.....	380,746	Apr. 10	663	183	43	149
Deane, Charles V. (See Dixon, Walter M., assignor.)						
Deane, Royal E., New York, N. Y. Automatic steam heater or boiler for culinary and other purposes.....	384,348	June 12	766	200	43	1274
Deane, William C., New York, N. Y. Dental tool.....	391,302	Oct. 16	1578	418	45	318
Dear, Somerville. (See Lawson and Dear.)						
Deboard, Cyrenous W., assignor of one-half to J. B. Garduer, Holton, Kans. Car-coupling.....	386,060	July 10	1063	{ 284 } 285	{ 44 } 45	{ 217 } 212
Dearborn, Wyman, Boston, Mass. Wool-burring machine.....	390,949	Oct. 9	1050	277	45	212
Dearborn, Wyman, Boston, Mass. Wool-burring machine.....	393,746	Dec. 4	17	6.7	45	1076
Dearing, Fountain F., and R. C. Melton, Bellbuckle, Tenn. Spoke-socket.....	391,030	Oct. 16	1202	320	45	247
Dearing, Octavus A., San Francisco, Cal. Printer's galley.....	381,117	Apr. 17	1256	337	43	261
Dearlove, Joseph H., and H. Thresher, London, county of Middlesex, England, assignors to A. H. Overman, Boston, Mass. Tricycle.....	381,763	Apr. 24	2185	572	43	460
Death, Alfred H., Leicester, England. Feeding apparatus for scutching or fiber-cleaning machines.....	385,300	June 26	2204	565	43	1571
Debary, Arnold. (See Herren, Christian, assignor.)						
Debrinke, Julius, Salt Lake City, Utah Ter. Watch-protector.....	380,869	Apr. 10	851	230	43	175
Debus, William J., Rochester, N. Y. Fire-escape.....	387,772	Aug. 14	865	223	44	745
Deck, Frederick, assignor to Prahar & Shepard, Brooklyn, N. Y. Album-clasp.....	393,889	Dec. 4	233	62	45	1116
Deck, James M., <i>et al.</i> (See Boland, John, assignor.)						
Deck, William B., <i>et al.</i> (See Boland, John, assignor.)						
Decker, Charles W. (See Grace, Henry S., assignor.)						
Decker, Edwin S. (See Hagarty, George L., assignor.)						
Decumbus, Oliver H., Newark, N. J. Projectile-receiver for targets.....	385,546	July 3	319	82	44	64
Dederick, Levi, Albany, N. Y. Extension fire-ladder.....	383,106	May 22	1843	{ 482 } 483	{ 43 } 43	{ 894 } 895
Dederick, Levi, Albany, N. Y. Extension fire-ladder.....	383,107	May 22	1846	483	43	895
Dederick, Peter K., Loudonville, N. Y. Baling-press.....	382,134	May 1	392	102	43	585
Dederick, Peter K., Albany, N. Y. Baling-press.....	382,954	May 15	1589	415	43	836
Deeds, John B., assignor to F. Lee, Terre Haute, Ind. Hydrocarbon generator and burner.....	377,019	Jan. 31	1882	495	42	390
Deeds, John B., assignor to R. H. Catlin, Terre Haute, Ind. Anti-friction compound.....	395,216	Dec. 25	2335	597	45	1545
Deeds, John B., assignor to R. H. Catlin, Terre Haute, Ind. Metallic packing-ring.....	395,217	Dec. 25	2335	597	45	1545
Deeley, Robert, <i>et al.</i> (See Graves, John, assignor.)						
Deeley, Thomas E., <i>et al.</i> (See Graves, John, assignor.)						
Deem, Miller M. (See Tyson and Deem.)						
Deere & Mansur Company. (See Waterman, Lewis E., assignor.)						
Deere & Mansur Company. (See White, Charles E., assignor.)						
Deering & Company, William. (See Stone, John A., assignor.)						
Deering, William. (See Burson, William W., assignor.)						
Deering, William. (See Olin, William F., assignor.)						
Deering, William. (See Pitkin and Steward, assignors.)						
Deering, William. (See Spandling, George H., assignor.)						
Deevy, Patrick, Hastings, Nebr. Wheeled scraper.....	380,314	Apr. 3	11	3	43	4
Defiance Machine Works. (See Kettenring, Peter, assignor.)						
Defiance Machine Works. (See Seymour, Charles, assignor.)						
Defoe, Edward, assignor to himself and Z. Raby, Nashua, N. H. Loom-shuttle.....	392,994	Nov. 20	1213	315	45	843
Dege, Middleton D. (See Walsh, Richard P., assignor.)						
Degood, Alexander K., Millsborough, Pa. Fence-making machine.....	388,643	Aug. 28	2208	594	44	1018
Dehner, Michal H., Cincinnati, Ohio. Window-screen.....	390,656	Oct. 9	637	170	45	135
Dehnert, Max, Deuben, Saxony, Germany. Pneumatic mustard-pot.....	382,218	May 1	496	129	43	605
Deibert, Ambrose E., assignor of one-half to E. J. Lawless, Kansas City, Mo. Car-brake.....	392,316	Nov. 6	199	52	45	632
Deibert, John T. (See Bolt, Joseph, assignor.)						
Deike, August H., Guelph, Ontario, Canada. Weighing-scale.....	392,995	Nov. 20	1214	315	45	843
Deiminger, Michael F., Brooklyn, N. Y. Hearse.....	380,682	Apr. 3	474	134	43	96
Deissler, Peter and W., Philadelphia, Pa. Meat-cutter.....	383,713	May 29	2736	721	43	1075
Deissler, Robert, <i>et al.</i> (See Schwilinsky, Hermann, assignor.)						
Deissler, William. (See Deissler, Peter and W.)						
Delagneau, George, Hastings, Nebr. Staple-setting implement.....	389,922	Sept. 25	1720	{ 454 } 455	{ 44 } 45	{ 1423 } 1423
Delafeld, Clarence, Mobile, Ala. Device for reducing pressure in water or gas pipes.....	393,501	Nov. 27	1943	508	45	995
Delahunty, Joseph P., Sr., Pittston, Pa. Dye-vat. (Reissue).....	10,973	Dec. 11	1208	314	45	1309
Delaloe, Léon. (See Piat and Delaloe.)						
Delamare-Dehontville, Edouard, and L. P. C. Malandin, Fontaine-le-Bourg, Seine Inférieure, France. Gas-engine. (Reissue).....	10,951	July 31	2782	{ 727 } 728	{ 44 } 45	{ 566 } 568
Delamater, Almond, Meadville, Pa. Combined anti-rattler and shaft-support.....	377,605	Feb. 7	383	97	42	568
Delamater, James C., Fort Plain, N. Y. Pattern for gauntlets.....	391,403	Oct. 23	1717	457	45	352
Delaney, Charles W., Hammond, Ind. Head-rest for barbers' chairs.....	377,147	Jan. 31	2062	541	42	425
Delaney, Henry J. (See Starkenberg, Felix, assignor.)						
Delano, Alphonso F., Hyde Park, assignor to Smith American Organ and Piano Company, Boston, Mass. Piano-cass.....	385,172	June 26	1993	511	43	1530
Delano, Milton, and O. L. Cummins, near Columbia City, Ind. Clod-crusher and ground-lever.....	379,565	Mar. 20	1027	275	42	1174
Delano, Philip, Brooklyn, N. Y. Holder for advertising mediums.....	379,375	Mar. 13	743	201	42	1112
Delany, James J., Philadelphia, Pa. Guard for area or basement stairways.....	389,206	Sept. 11	618	158	44	1196
Delany, Patrick B., New York, N. Y. Printing-telegraphy.....	378,436	Feb. 28	1645	{ 432 } 433	{ 42 } 43	{ 839 } 840
Delany, Patrick B., New York, N. Y. Printing-telegraph.....	378,437	Feb. 28	1649	433	42	840
Delany, Patrick B., New York, N. Y. Telegraphy.....	381,764	Apr. 24	2187	572	43	461
Delany, Patrick B., New York, N. Y. Electrical bulletin.....	386,189	July 17	1253	{ 334 } 335	{ 44 } 45	{ 261 } 261
Delany, Patrick B., New York, N. Y. Telegraphy.....	388,481	Aug. 28	1980	532	44	974
Delany, Patrick B., New York, N. Y. Telegraphy.....	389,062	Sept. 4	373	97	44	1143
Delany, Patrick B., New York, N. Y. Electric-current indicator.....	390,115	Sept. 25	2004	534	44	1480
Delbridge, Arthur H. (See Ford and Delbridge.)						
Dell, John C., Philadelphia, Pa. Grinding-machine.....	393,145	Nov. 20	1411	369	45	882
Dellinger, William, and J. G. McNaughton, Marion, N. C. Machine for grooming horses.....	392,788	Nov. 13	913	234	45	777
Delmas-Azéma, Henri, St. Quentin, France. Gas-burner.....	386,113	July 17	1150	305	44	239
Delmonico, Charles C. (See Lemaire, Henri F. M., assignor.)						
Delpy, Theodore L., Paris, France, assignor to L. Dermigny, New York, N. Y. Freezer.....	390,349	Oct. 2	215	56	45	45

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Delpy, Theodore L., Paris, France, assignor to L. Dermigny, New York, N. Y. Freezer.	391,125	Oct. 16	1330	{ 354 355 }	45	271
Demarest, Francis M., Brooklyn, assignor of three-fourths to T. Gerehart, A. S. Gookin, and E. F. J. Gaynor, New York, N. Y. Alarm for bicycles and other vehicles.	385,547	July 3	321	83	44	65
Demarest, James T., Englewood, N. J. Saus-mill.	387,497	Aug. 7	411	115	44	659
Demarest, John, assignor to J. L. Mott Iron Works, New York, N. Y. Seat-connection for water-closet cisterns.	376,867	Jan. 24	1672	436	42	341
Demarest, John, assignor to J. L. Mott Iron Works, New York, N. Y. Water-closet cistern.	378,294	Feb. 21	1438	375	42	791
Demarest, John, assignor to J. L. Mott Iron Works, New York, N. Y. Water-closet cistern.	378,664	Feb. 28	1972	523	42	905
Demarest, John, assignor to J. L. Mott Iron Works, New York, N. Y. Water-closet cistern.	379,376	Mar. 13	744	202	42	1112
Demarest, John, assignor to J. L. Mott Iron Works, New York, N. Y. Flushing apparatus for water-closets, &c.	381,221	Apr. 17	1389	371	43	286
Demarest, John, assignor to J. L. Mott Iron Works, New York, N. Y. Cistern for water-closets.	386,915	July 31	2364	621	44	491
Demarest, John, assignor to J. L. Mott Iron Works, New York, N. Y. Overflow-valve for water-closet cisterns.	386,918	July 31	2365	621	44	491
Deming, Frank B., Salem, Ohio. Hub-boring machine.	387,773	Aug. 14	866	{ 223 224 }	44	745
Deming, William L. (See Harris, William R., assignor.)						
Dempster, Alexander R. and C. B., Beatrice, Nebr. Windmill.	390,009	Sept. 25	1833	486	44	1445
Dempster, Charles B. (See Dempster, Alexander R. and C. B.)						
Dempster, John T. (See Bergmann and Dempster.)						
Demuth, Elijah, Newwash, Ohio. Portable fence.	388,644	Aug. 28	2210	594	44	1018
Denchy, Denis M., and H. W. Childs, Acampo, Cal. Sectional weed-cutter.	376,735	Jan. 24	1459	385	42	303
Denchy, Denis M., and H. W. Childs, Acampo, Cal. Platform-scraper.	380,024	Mar. 27	1749	467	42	1321
Dengolsky, William, Booneville, Mo. Brick-machine.	381,345	Apr. 17	1576	423	43	324
Denio, William L., assignor of two-thirds to D. B. Platt and H. L. Bushnell, Rochester, N. Y. Magneto-generator for fire-alarm circuits.	394,839	Dec. 18	1714	444	45	1422
Denison, Richard, assignor of one-half to J. Blakey, Leeds, county of York, England. File-cutting machine.	384,133	June 5	429	{ 119 120 }	43	1204
Dennett, Fred A. (See Gale, Herbert N., assignor.)						
Dennis, Andrew J., Franklin, Tenn. Back-band hook.	387,583	Aug. 7	594	155	44	686
Dennis, Andrew J., assignor to E. G. Bennett and W. H. McKinstry, Franklin, Tenn. Device for repairing broken slats.	379,688	Mar. 20	1216	322	42	1211
Dennis, Benjamin F., Dover, N. H., assignor to J. C. Weeks, Lynn, Mass., and G. W. Hesclon, Gardiner, Me. Buckle-guard.	392,996	Nov. 20	1215	316	45	844
Dennis, George W., et al. (See Church, Walter A., assignor.)						
Dennis, John B., Ottumwa, Iowa. Bank-register.	392,317	Nov. 6	200	52	45	632
Dennis, John E., Jr., Glenbeulah, Wis. Mail-bag.	375,805	Jan. 3	111	32	42	26
Dennis, William F., London, England. Machine for making wire-netting.	379,008	Mar. 6	214	58	42	1007
Dennison, William E. (See Edwards, Granville M., assignor.)						
Denny, Edward B., Newark, N. J. Device for mixing gas and air.	389,076	May 1	301	79, 80	43	568
Denslow, William H., Ulster, Pa. Combined steam and hot-air heater.	391,031	Oct. 16	1203	320	45	248
Densmore, Edwin. (See Locke, Edward W., assignor.)						
Densmore, Amos. (See Barron, Walter J., assignor.)						
Densmore, Amos, et al. (See Barron, Walter J., assignor.)						
Densmore, Edwin, assignor to W. T. Powers & Son, Grand Rapids, Mich. Veneer-cutting machine.	382,219	May 1	497	129	43	605
Densmore, Samuel D., Boston, Mass. Heel for boots or shoes.	386,969	July 31	2434	640	44	505
Derby Silver Company. (See Berry, Henry, assignor.)						
Denton, Daniel T., Tower Mines, Minn. Grip for tram-cars.	376,587	Jan. 17	1217	321	42	249
Denton, Daniel T., Tower Mines, Minn. Car-dumping device.	390,350	Oct. 2	216	57	45	46
Denton, Daniel T., Tower Mines, Minn. Lifting-cage for mines.	395,041	Dec. 25	2035	525	45	1491
Depew, Robert H. (See Hauser and Depew.)						
Deprez, Marcel, Paris, France. Dynamo-electric machine.	379,689	Mar. 20	1217	{ 322 323 }	42	1211
Derber, Etienne, San Francisco, Cal. Drill and dredge.	389,449	Sept. 11	991	265	44	1268
Derby & Co., Philander. (See Nichols, John, assignor.)						
Derby, John N., et al. (See Desmond, John, assignor.)						
Derby, Willis M., Minneapolis, Minn. Lubricator.	376,432	Jan. 17	1002	262	42	207
Déri, Maximilian. (See Zipernowsky and Déri.)						
Déri, Maximilian. (See Zipernowsky, Déri, and Bláthy.)						
Derington, John H., and H. J. Parker, Springfield, Mo.; said Derington assignor to said Parker. Machine for making barbs for hog-nose rings.	382,693	May 15	1243	324	43	766
Dermigny, Leon. (See Delpy, Theodore L., assignor.)						
Dernell, Herman M. (See Beebe, Theodore S., assignor.)						
Derrickson, Joseph W. (See Pennock, William H., assignor.)						
Des Brisay, James, Kamloops, British Columbia, Canada. Valve-gear.	381,678	Apr. 24	2069	{ 540 541 }	43	439
Des Brisay, James, Kamloops, British Columbia, Canada. Valve for engines.	390,460	Oct. 2	367	95	45	77
Des Brisay, James, Vancouver, British Columbia, Canada. Axle-box.	389,691	Sept. 18	1366	358	44	1344
Des Georges, Jules, Paris, France. Brake for vehicles.	396,116	Sept. 25	2005	534	44	1480
Des Moines Buggy Company. (See Cloyes, James H., assignor.)						
Des Moines Buggy Company. (See Cloyes and Gray, assignors.)						
Des Moines Saddlery Hardware and Manufacturing Company. (See Dippert, William, assignor.)						
Desautels, Barney, Grafton, Dak. Ter. Horse hay-rake.	388,401	Aug. 28	1873	500	44	952
Deshazo, Albert G., Cypress Ridge, Ark. Cotton-chopping machine.	393,821	Dec. 4	123	31	45	1096
Desmond, John, assignor to N. L. Hayden and J. N. Derby, Detroit, Mich. Steam-injector.	392,544	Nov. 6	538	135	45	697
Despeissis, Marie A., St. Kilda, Victoria. Draft-regulator.	392,014	Oct. 30	2583	703	45	537
Detemmann, John B., assignor of one-half to J. F. Wagner, Louisville, Ky. Sheet-metal siding for covering the walls of buildings.	381,000	Apr. 10	1060	280	43	214
Detroit Car Wheel Company. (See Pasco, Thomas H., assignor.)						
Detroit Motor Company. (See Slater, Henry B., assignor.)						
Detroit Patent Brush Company. (See Frisbie, Henry R., assignor.)						
Detroit Stay Company. (See Wheeler and Mac Questen, assignors.)						
Detroit Steam Radiator Company. (See Taylor, Harrison H., assignor.)						
Detroit Steel and Spring Works. (See Holmes, William G., assignor.)						
Dettra, Benjamin, Rushville, Ill. Motor.	389,290	Sept. 11	762	193	44	1225
Dettra, Benjamin F., Reading, Pa. Window.	386,003	July 10	984	262	44	201
Dettra, Benjamin F., and J. C. Shields, Rushville, Ill. Bullet-proof case for railway-cars.	376,736	Jan. 24	1459	385	42	303
Detwiler, F. W. (See Cronin, William D., assignor.)						
Detwiler, George K., Toledo, Ohio. Natural-gas burner.	386,971	July 31	2436	641	44	506
Detwiler, Jacob J., Jersey City, N. J. Fire-works.	377,730	Feb. 7	564	145	42	601

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Detwiler, Jacob J., Greenville, N. J., assignor to Detwiler & Street Fire Works Manufacturing Company, New York, N. Y. Tray for torpedo-machines	385,795	July 10	690	180	44	143
Detwiler & Street Fire Works Manufacturing Company. (See Detwiler, Jacob J., assignor.)						
Deuther, Lorenz A., Buffalo, N. Y. Advertising-sign	381,766	Apr. 24	2190	572	43	462
Dentsch, Eugen. (See Nöltner, Ambrosius, assignor.)						
Devane, Daniel J. and J. F., Quitman, Ga. Thrashing-machine	387,627	Aug. 14	658	{ 170 171 }	44	705
Devane, John F. (See Devane, Daniel J. and J. F.)						
Devantery, Joseph, Brooklyn, assignor to Hand Power Test Machine Company, New York, N. Y. Coin-controlled strength-testing machine	385,921	July 10	880	233	44	180
Deveau, Edward A. (See Baker, Halsey H., assignor.)						
Devens, Francis P., Kansas City, Mo. Combination-tool for loading cartridges	379,635	Mar. 20	1137	301	42	1195
Devens, Francis P., Kansas City, Mo. Cartridge-loader	379,636	Mar. 20	1139	{ 301 302 }	42	1196
Deverall, Emily A., Brooklyn, N. Y. Nozzle for oil-cans	385,447	July 3	171	46	44	35
Devereux, Walter B., et al. (See Thomson, John L., assignor.)	381,679	Apr. 24	2071	541	43	439
Devereux, Walter B., Aspen, Colo. Apparatus for separating lead or base bullion in smelting from slag, &c.	377,802	Feb. 14	716	181	42	646
Devereux, Walter B., Aspen, Colo. Apparatus for separating lead or base bullion in smelting from slag, mattes, and speiss	381,118	Apr. 17	1257	337	43	261
Devereux, Walter B., Aspen, Colo. Apparatus for separating base bullion from slag, mattes, and speiss	381,119	Apr. 17	1259	337	43	262
Devereux, Walter B., Aspen, Colo. Apparatus for separating lead and base bullion from slag	384,349	June 12	767	200	43	1274
Devers, William J., assignor of one-half to M. Clark, Scranton, Pa. Sash-lock	391,357	Oct. 16	1650	436	45	331
Devlin & Co., Thomas. (See Johnson, Joseph W., assignor.)						
Devlin & Co., Thomas. (See Koerber, John M., assignor.)						
Devling, Amelia E. (See Devling, James W., assignor.)						
Devling, James W., assignor of seven-eighths to A. E. Devling, Flemington, Pa. Lime-kiln	384,895	June 19	1578	411	43	1437
Devoll, William C. (See Devoll and Devoll.)						
Devold, William, and W. C. Devold, near St. Mary's, Kans. Animal-trap	384,827	June 19	1479	386	43	1419
Devore, Levi M., Freeport, Ill. Cork-extractor	388,844	Sept. 4	52	14	44	1082
Devore, Levi M., Freeport, Ill. Curry-comb	389,451	Sept. 11	993	265	44	1269
Devore, Levi M., Freeport, Ill. Cork-extractor	390,159	Sept. 25	2065	551	44	1494
Devore, Levi M., Freeport, Ill. Spring-hinge	392,667	Nov. 13	724	184	45	739
Devore, Levi M., assignor of one-half to R. H. Wiles and W. Greene, Freeport, Ill. Ornamental wire coil	382,220	May 1	499	129	43	606
Devore, Levi M., and W. Greene, Freeport, Ill. Stove-back	381,535	Apr. 24	1869	494	43	392
Devore, Levi M., and F. W. Hoefer, Freeport, Ill.; said Hoefer assignor to said Devore. Spring-hinge	389,450	Sept. 11	992	265	44	1269
Devore, William B. (See Baker, Henry B., assignor.)						
Devoy, Martin, Syracuse, N. Y. Caster attachment for stoves or furniture	381,120	Apr. 17	1262	338	43	262
Dew, Martin, Cass City, Mich. Carrier for harvester-platforms	390,010	Sept. 25	1836	{ 486 487 }	44	1446
Dewberry, William A., Peace, Ark. Sawing-machine	380,386	Apr. 3	122	36	43	26
Deweese, John Trimmer Company. (See Dewees, John W., assignor.)						
Deweese, John W., Philadelphia, Pa. Trimming attachment for sewing-machines	381,537	Apr. 24	1871	{ 494 495 }	43	399
Deweese, John W., assignor to Dewees Fabric Trimmer Company, (limited,) Philadelphia, Pa. Welt-trimmer for sewing-machines	381,536	Apr. 24	1870	494	43	398
Dewey, Mark W., assignor of two-thirds to E. Laass and C. H. Duell, Syracuse, N. Y. Electric telegraphy	394,960	Dec. 25	1918	496	45	1469
Dewey, Mark W., assignor of two-thirds to E. Laass and C. H. Duell, Syracuse, N. Y. Telegraphic-printing code	394,961	Dec. 25	1920	496	45	1469
Dexter, Avelyn L., Whitewater, Wis. Refrigerator	384,965	June 26	1675	435	43	1464
Dexter, Charles H., Annapolis, Md. Revolving adjustable paper-file or other rack	385,699	July 10	549	143	44	114
Dexter, Henry M., Washington, D. C. Advertising or order desk	392,856	Nov. 13	1009	258	45	797
Dey, Alexander, Glasgow, Scotland. Razor-sharpening machine	389,291	Sept. 11	763	{ 193 194 }	44	1225
Dey, Anna L., New York, N. Y. Buffet for housekeeping	383,871	June 5	31	10	43	1127
Dey, Charles E., Denver, Colo. Circuit-closer for call systems	388,344	Aug. 21	1778	474	44	929
Dey, Harry E., New York, N. Y. Electric-lighting apparatus for railway-cars	381,915	May 1	25	7	43	519
Dey, Lewis R., Camden, N. J. Carpet-stretcher	382,205	May 8	624	159	43	639
Deyell, Isaac, and W. B. Watkins, St. Thomas West, Ontario, Canada. Running-board for freight-cars	392,015	Oct. 30	2586	704	45	538
Dial, Wilbur F., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Thread-controlling mechanism for sewing-machines	386,300	July 17	1429	378	44	293
Dial, Wilbur F., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Driving apparatus and brake for sewing-machines	391,694	Oct. 23	2104	570	45	433
Diamond Match Company. (See Pickett, Alva L., assignor.)						
Diamond Match Company. (See Preston and Whalen, assignors.)						
Diamond Prospecting Company. (See Cossette, Henry, assignor.)						
Diamond State Iron Company. (See Eynon and Davis, assignors.)						
Dibbern, Christian, and R. C. Krüger, Boston, Mass. Storm-window	391,405	Oct. 23	1719	458	45	353
Dibble, Fernando J., New York, N. Y., assignor to Teleneter Company of New York. Telerhometer	379,766	Mar. 20	1325	{ 353 354 }	42	1233
Dick, Augustus C., Cincinnati, Ohio. Apparatus for springing target-traps	383,446	May 29	2339	621	43	993
Dick, Frank W., Glasgow, county of Lanark, Scotland. Piston water-meter	382,145	May 1	394	103	43	586
Dick, Jacob, Jerseyville, Ill. Portable elevator	382,077	May 1	305	80	43	569
Dick, Joseph C. F., Chicago, Ill., assignor to Heaton Button Fastener Company, Providence, R. I. Button-machine	389,453	Sept. 11	996	266	44	1269
Dick, Robert. (See Kennedy, Rankin, assignor.)						
Dick, William. (See Hyatt and Dick.)						
Dickerman, Elmer W., assignor of one-half to G. E. Whipple, Westfield, Mass. Spinning-top	387,153	July 31	2707	710	44	554
Dickerson, Edward N., Jr. (See Hartford, Arthur J., assignor.)						
Dickerson, Edward N., Jr. (See Hasenkamp, Ernst, assignor.)						
Dickerson, Edward N., Jr., New York, N. Y. System of electrical conversion	377,994	Feb. 14	981	256	42	699
Dickerson, Edward N., Jr., New York, N. Y. Regulator for pumping-engines	380,025	Mar. 27	1750	468	42	1323
Dickerson, Lemuel F., Newark, and H. Tindell, Harrison, assignors to E. R. Parkhurst, Montclair, N. J. Feeding mechanism for picking and carding machines	392,722	Nov. 13	805	205	45	756

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Dickerson, William M., assignor of one-half to L. W. Holloway, Indianapolis, Ind. Band-saw mill.....	381,466	Apr. 17	1756	470	43	358
Dickey, Adam, Hamilton, Ohio. Hammock.....	381,538	Apr. 24	1873	495	43	399
Dickey, Anthony T., Paoli, assignor of one-half to J. F. Faulkner, Birdseye, Ind. Running-gear.....	389,554	Sept. 18	1144	300	44	1304
Dickey, Cyrus M. and E. E., New Garden, Ohio. Churn.....	383,633	May 29	2617	692	43	1049
Dickey, Etta E. (See Dickey, Cyrus M. and E. E.)						
Dickieson, James W. (See Patterson and Dickieson.)						
Dickinson, Andrew G., New York, N. Y. Artificial stone.....	387,344	Aug. 7	216	-----	44	613
Dickinson, Austin R., Syracuse, N. Y. Sash-fastener.....	385,548	July 3	323	83	41	65
Dickinson, Daniel A., St. Paul, Minn. Steam-boiler.....	390,461	Oct. 2	368	95	45	77
Dickinson, Isaac N., assignor to Pennsylvania Iron Works, Reading, Pa. Grate-bar.....	378,195	Feb. 21	1273	337	42	762
Dickinson, Matthew S., Ridgely, Md. Driving-rein.....	392,789	Nov. 13	915	234	45	777
Dickinson, P. P. (See Plumb, William H., assignor.)						
Dickson, William, Rockford, Ill. Combined seeding and cultivating machine.....	388,026	Aug. 21	1259	312	41	831
Dickson, David A., Duluth, Minn. Clothes-drier.....	387,345	Aug. 7	217	57	44	613
Dickson, John A., Pulaski, Tenn. Horse-detacher.....	383,447	May 29	2340	621	43	994
Dickson, Samuel J., Chicago, Ill. Bed-bottom.....	393,547	Nov. 27	2021	529	45	1013
Dickson, William D., Peoria, Ill. Furnace.....	393,362	Nov. 27	1733	458 459	45	955
Diden, William F., Milton, Fla. Reversing-gear.....	393,219	Nov. 20	1521	399	45	906
Diebel, William, Philadelphia, Pa. Advertising novelty.....	386,773	July 24	2112	554	44	435
Diebold, Carl, assignor to Diebold Safe and Lock Company, Canton, Ohio. Bolt.....	384,238	June 12	596	161	43	1245
Diebold Safe and Lock Company. (See Diebold, Carl, assignor.)						
Diebold Safe and Lock Company. (See Kirks, Albert, assignor.)						
Diedrich, Albert, Berlin, Germany. Tile.....	385,343	July 3	9	3	44	4
Dieffendorf, Rosell W., Fort Plain, N. Y. Compound tool.....	389,553	Sept. 18	1144	300	44	1304
Dieffenbach, Ambrose, Devil's Lake, Dak. Ter. Grain-elevator.....	394,560	Dec. 18	1237	323	45	1329
Diehl, Charles E., Pittsburg, Pa. Artificial tooth-crown.....	387,774	Aug. 14	867	224	44	745
Diehl, Charles E., assignor to H. J. P. Diehl, Pittsburg, Pa. Shoe.....	387,948	Aug. 14	1140	306	44	799
Diehl, Henry J. P. (See Diehl, Charles E., assignor.)						
Diehl, John. (See Crocker and Diehl.)						
Diehl, John F., et al. (See Boore, Lewis, assignor.)						
Diehl, Philip, Elizabeth, N. J. Electric motor.....	381,222	Apr. 17	1391	371 372	43	287
Diehl, Philip, Elizabeth, N. J. Apparatus for hardening and tempering by electricity.....	388,645	Aug. 28	2211	594	44	1018
Diehl, Philip, Elizabeth, N. J. Electric motor.....	389,876	Sept. 25	1647	436	44	1408
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Feeding mechanism for sewing-machines.....	388,345	Aug. 21	1779	475	44	929
Diehl, Theodor, assignor to G. C. Zimmer, Mannheim, Baden, Germany. Coloring-matter from the sulpho-acids of ethyl or diphenylamine combined with tetrazodiphenyl or tetrazoditolyl.....	380,098	Mar. 27	1852	-----	42	1344
Diell, John J., Marysville, Ohio. Egg-beater.....	387,214	Aug. 7	26	6	44	577
Diener, John F., Elizabeth, N. J., and P. E. Gonon, New York, N. Y. Paper box.....	389,367	Sept. 11	863	223	44	1245
Diers, John H. (See Stare, Diers, and Bicket.)						
Diescher, Samuel, and J. J. McGill, Pittsburg, Pa. Winding or driving drum.....	387,775	Aug. 14	868	224	44	745
Dietrich, Daniel D., et al. (See Powell, John B., assignor.)						
Dietrich, Engelbert, assignor of one-half to A. Mair, Cincinnati, Ohio. Picture-frame.....	388,027	Aug. 21	1260	342	44	832
Dietrich, Harry A. R., South Bethlehem, Pa. Steam-boiler.....	395,268	Dec. 25	2402	615 616	45	1559
Dietz, Christoph F., assignor of one-half to P. Lestelle, New Orleans, La. Fishing-hook.....	377,294	Jan. 31	2280	603	42	467
Dietz Company, R. E. (See Betts, Charles L., assignor.)						
Dietz Company, R. E., et al. (See Betts, Lewis F., assignor.)						
Dietz Company, R. E., et al. (See Colony, Charles W., assignor.) (Reissue.)						
Dietz Company, R. E., et al. (See Dietz, Frederick, assignor.)						
Dietz, Frederick, assignor to R. E. Dietz Company, New York, and Steam Gauge and Lantern Company, Rochester, N. Y. Tubular lantern.....	387,970	Aug. 14	1170	318	44	805
Dietz, George F., Los Angeles, Cal. Curry-comb.....	380,250	Mar. 27	2058	550	42	1386
Dietz, John C. Rue de la Presse, Brussels, Belgium. Harp.....	391,467	Dec. 11	1084	281 282	45	1287
Dietz, Robert E. (See Betts, Lewis F., assignor.)						
Dietz, William H., Chicago, Ill. Dating device.....	384,026	June 5	274	77	43	1173
Difley, Thomas, Rosemount, Minn. Pump attachment.....	385,104	June 26	1903	485	43	1512
Dilg, Nikolans, New York, N. Y. Fishing-reel.....	393,098	Nov. 20	1347	352	45	870
Dilger, Theodore, Liberal, Ind. Brake-lever.....	381,027	June 5	276	77	43	1174
Dill, Joshua A., assignor to C. F. Kreh, Frederick, Md. Shutter-bower.....	394,253	Dec. 11	766	203	45	1236
Dill, Louis. (See Sachs, William, assignor.)						
Dill, Thomas C., Philadelphia, Pa. Disconnecting device for valve-rods.....	385,549	July 3	324	83, 84	44	65
Dill, Thomas C., Philadelphia, Pa. Spindle-bearing.....	394,347	Dec. 11	917	241	45	1257
Dille, Henry H., and E. W. McGuire, assignors to Dille & McGuire Manufacturing Company, Richmond, Ind. Machine for measuring and cutting fabrics.....	376,641	Jan. 17	1318	346 347	42	266
Dille, Henry H., and E. W. McGuire, assignors to Dille & McGuire Manufacturing Company, Richmond, Ind. Apparatus for measuring and cutting fabrics.....	376,642	Jan. 17	1322	347	42	267
Dille & McGuire Manufacturing Company. (See Dille and McGuire, assignors.)						
Dilley, Clarence M., Jackson, Mich. Combined door bell and alarm.....	381,539	Apr. 24	1875	495	43	399
Dillingham, Edgar B. (See Stevens, Arthur D., assignor.)						
Dillman, John S., and W. B. Kyle, Moscow, Idaho Ter. Fumigator.....	395,042	Dec. 25	2036	526	45	1492
Dillon, Daniel H., Nelson, Neb. Check-row corn-planter.....	391,126	Oct. 16	1332	355	45	271
Dillon, Ellis E., Normal, Ill. Horse-blanket fastener.....	377,097	Jan. 31	2004	525	42	413
Dillon, George M., and J. H. Bevington, Bellevue, Ohio. Head-rest.....	380,251	Mar. 27	2059	550	42	1386
Dillon, George M., and J. H. Bevington, Bellevue, Ohio. Head-rest.....	380,252	Mar. 27	2060	551	42	1386
Dillon, James M. (See Lutz and Dillon.)						
Dillon, James M., Poughkeepsie, N. Y. Tool-holder for grindstones.....	388,958	Sept. 4	225	60	44	1115
Dillon, Philip F., Savannah, Ga. Metallic mold.....	382,411	May 8	801	204 205	43	671
Dillon, William S. F., Cincinnati, assignor of one-third to G. Hall, Lima, Ohio. Harness hook or snap.....	384,512	June 12	1010	263	43	1320
Dimick, Forrest K., Kanona, N. Y. Table for shearing and tagging sheep.....	389,063	Sept. 4	375	98	44	1144
Dimity, Engelhard, Clay Centre, Kans. Cultivator.....	392,997	Nov. 20	1216	316	45	844
Dimmick, Albert M., and E. Z. Smith, Wilkes-Barré, Pa. Sectional steam-boiler.....	376,371	Jan. 10	909	238	42	183
Dimmick, Albert M., and E. Z. Smith, Wilkes-Barré, Pa. Sectional steam-boiler.....	389,642	Sept. 18	1283	337 338	44	1328
Dimmick, Charles M., et al. (See Gasking, George H., assignor.)						
Dimon, Frank S., Fort Scott, Kans. Tire-tightener.....	382,955	May 15	1591	415	43	836



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page.
Dimon, William B., Philadelphia, Pa. Umbrella.....	387,628	Aug. 14	659	171	44	705
Dimond, George H., and A. C. Campbell, Bridgeport, Conn., assignors to Wheeler & Wilson Manufacturing Company. Device for lifting sewing-machine presser-feet.....	386,868	July 31	2290	602	44	477
Dimond, Henry C. (See Way, Frank K., assignor.)						
Dinger, Henry F. (See Rasner, Abraham, assignor.)						
Dingledine, Daniel, Brooklyn, N. Y. Bending-tool.....	387,498	Aug. 7	442	115	44	659
Dinkel, George, Jersey City, N. J. Steam-trap.....	380,791	Apr. 10	739	202	43	155
Dinsmore, Alfred S., Boston, Mass. Gas-stove.....	384,683	June 19	1259	{ 330 331 }	{ 43 }	1377
Dinsmore, John H. R., Liverpool, county of Lancaster, England. Manufacturing illuminating-gas from coal.....	383,634	May 29	2618	693	43	1050
Dinsmore, John H. R., Liverpool, county of Lancaster, England. Apparatus for washing and purifying illuminating-gas.....	383,635	May 29	2620	693	43	1050
Dion, Jerry, North Bend, Nebr. Welding-bench for plows.....	386,387	July 17	1543	409	44	315
Dippert, William, Des Moines, Iowa, assignor, by mesne assignments, of one-half to Des Moines Saddlery Hardware and Manufacturing Company. Buckle and hame-tug attachment.....	379,530	Mar. 13	970	262	42	1157
Disbrow, Andrew J., Old Bridge, N. J. Device for picking cranberries.....	378,775	Feb. 28	2121	560	42	932
Disbrow, Samuel, Lewis, Iowa. Potato-plow.....	384,310	June 12	702	187	43	1264
Disney, Robert H., Newark, N. J. Packing and guard for stylographic pens.....	385,448	July 3	173	46	44	35
Diss, Louis P., Ilion, N. Y. Breech-loading gun.....	383,108	May 22	1848	{ 483 484 }	{ 43 }	895
Disston & Sons, Henry. (See Eisenhardt, Christopher, assignor.)						
Distelhorst, John, assignor to A. H. Richter, Burlington, Iowa. Grating and slicing device.....	394,759	Dec. 18	1562	408	45	1393
Dithridge, George W., New York, N. Y. Center bearing for car-trucks.....	380,870	Apr. 10	852	230	43	175
Dittenhoefer, Myer, New York, N. Y. Lining hollow articles with hard rubber.....	378,776	Feb. 28	2122	560	42	932
Dittmar, Henriette A. M., Berlin, Germany. Photographic album with separable leaves.....	387,629	Aug. 14	661	{ 171 172 }	{ 44 }	706
Diveley, John J., Aurora, Ill. Garden-hose carriage.....	381,540	Apr. 24	1876	495	43	400
Dixon, Alexander H. (See Steele, John C., assignor.)						
Dixon, Benjamin F. (See Tate and Dixon.)						
Dixon, Charles A., assignor to R. Whitehill, Newburg, N. Y. Releasing valve-gear.....	381,001	Apr. 10	1061	{ 280 281 282 }	{ 43 }	214
Dixon, David, <i>et al.</i> (See Wilcock, Charles, assignor.)						
Dixon, George E., Chicago, Ill. Reversible hood for heat-radiators.....	393,747	Dec. 4	21	7	45	1076
Dixon, George E., Chicago, Ill. Steam safety-valve.....	393,748	Dec. 4	22	8	45	1076
Dixon, Henry G. (See Fenner, James E., assignor.)						
Dixon, John, assignor of four-fifths to F. J. Blades, W. S. Douglas, D. Garlick, and W. Malcolm, Adelaide, South Australia. Smelting pyrites.....	386,629	July 24	1905	504	44	398
Dixon, John F., Clay Centre, Kans. Vehicle-axle.....	381,828	Apr. 24	2297	597	43	481
Dixon, John G., New York, N. Y. Collar and cuff drier and dampener.....	382,800	May 15	1393	363	43	794
Dixon, John W., Philadelphia, Pa. Apparatus for concentrating liquids.....	391,458	Oct. 23	1794	{ 479 480 481 }	{ 45 }	367
Dixon, John W., Philadelphia, Pa. Concentrating liquids.....	391,459	Oct. 23	1796	{ 480 481 }	{ 45 }	368
Dixon, Leslie L., <i>et al.</i> (See Goettel, John, assignor.)						
Dixon, Marcus, Newark, N. J. Handle.....	390,351	Oct. 2	217	57	45	46
Dixon, Robert M., East Orange, N. J., assignor to Pintsch Lighting Company, New York, N. Y. Heater for railway-cars.....	379,691	Mar. 20	1222	324	42	1212
Dixon, Robert W., assignor to Springfield Manufacturing Company, Springfield, Ohio. Rake.....	386,301	July 17	1431	378	44	293
Dixon, Theron S. E., Hyde Park, Ill. Railway-car.....	384,828	June 19	1480	386	43	1419
Dixon, Theron S. E., Hyde Park, Ill. Air-brake.....	389,643	Sept. 18	1285	{ 338 339 }	{ 44 }	1329
Dixon, Theron S. E., assignor of one-half to L. Hill, Chicago, Ill. Air-brake.....	382,031	May 1	227	60	43	555
Dixon, Theron S. E., assignor of one-half to L. Hill, Chicago, Ill. Air-brake for railway-cars.....	382,032	May 1	234	60, 61	43	556
Dixon, Walter M., assignor of one-half to C. V. Deane, St. Paul, Minn. Combined comb-cleaner and comb.....	385,796	July 10	691	180	44	143
Dixon, William, Clay Centre, Kans. Wire-and-picket-fence machine.....	378,777	Feb. 28	2123	561	42	933
Dixon, William, Clay Centre, Kans. Lifting-jack.....	379,742	Sept. 18	1441	377	44	1360
Doak, Robert, Sidney, Ohio. Drag-saw.....	381,830	Apr. 24	2298	598	43	481
Doane, Fred V. (See Doane, Valentine, Jr., assignor.)						
Doane, Stephen W., Hornellsville, N. Y. Railway torpedo-placer.....	376,078	Jan. 10	494	134	42	106
Doane, Valentine, Jr., Harwichport, Mass. Baby-carriage.....	393,298	Nov. 20	1635	431	45	928
Doane, Valentine, Jr., assignor to F. V. Doane, Harwich, Mass. Locking device for stove-pipe dampers.....	387,215	Aug. 7	28	6	44	578
Doane, William H., Cincinnati, Ohio. Tenoning-machine.....	387,940	Aug. 14	1141	{ 306 307 308 }	{ 44 }	799
Doane, William H., Cincinnati, Ohio. Blind-slat-tenoning machine.....	391,231	Oct. 16	1477	{ 392 393 }	{ 45 }	300
Doane, William H., Cincinnati, Ohio. Variety wood-worker.....	391,589	Oct. 23	1969	531	45	405
Doane, William H., Cincinnati, Ohio. Wood-worker.....	392,591	Nov. 13	611	154	45	718
Dobbins, Thomas. (See Sammons, Benjamin F., assignor.)						
Dobbroth, Otto R., Chicago, Ill. Wood-working machine.....	390,760	Oct. 9	783	{ 208 209 }	{ 45 }	162
Dobler, Anton, assignor to C. Dobler, New York, N. Y. Grinding-mill.....	381,346	Apr. 17	1579	423	43	324
Dobler, Charles. (See Dobler, Anton, assignor.)						
Dobson, Charles E., Jr. (See Washer and Dobson.)						
Dobson, Edward, assignor of one-half to D. M. Brodie, Montreal, Quebec, Canada. Smoke-consumer.....	387,866	Aug. 14	1001	261	44	772
Dobson, James, <i>et al.</i> (See Pearson, Charles, assignor.)						
Dobson, James, Philadelphia, Pa. Woven pile fabric.....	378,577	Feb. 28	1848	488	42	881
Dobson, James B., Cleveland, Ohio. Bolting-reel.....	391,406	Oct. 23	1721	{ 458 459 }	{ 45 }	353
Dobson, John, <i>et al.</i> (See Pearson, Charles, assignor.)						
Dobson, William J. M., Brooklyn, N. Y. Photographer's kit.....	379,377	Mar. 13	745	202	42	1113
Dobyns, James W., Wood Lawn, Va. Harrow.....	384,966	June 26	1676	435	43	1465
Docken, Ole G., Mount Horeb, Wis. Adjustable school desk and seat.....	378,875	Mar. 6	28	7, 8	42	972
Doctor, L. M. (See Ellis, James E., assignor.)						
Dodd, David, Orange, assignor to National Lock Washer Company, Newark, N. J. Nut-lock.....	390,212	Oct. 2	25	7	45	8
Dodd, James F., Delaware, Ohio. Pencil.....	378,084	Feb. 21	1109	290	42	731
Dodd, Peter, and J. H. Thomas; said Thomas assignor to J. Thomas, Newark, N. J. Automatic horse-feeder.....	378,909	Mar. 6	67	20	42	980



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Dodge, Edwin N., Claremont, Minn. Cuff-holder	391,739	Oct. 23	2170	586	45	446
Dodge, Elvander W. (See Lucas, Lamira, assignor.)						
Dodge, Ezra S., Providence, R. I. Button	388,402	Aug. 28	1874	501	44	952
Dodge, George P., Great Neck, N. Y. Weather-strip	378,778	Feb. 28	2125	561	42	933
Dodge, James M. (See Berger, Ambrose J. B., assignor.)						
Dodge, James M., Philadelphia, Pa. Chain conveyor for handling coal	382,638	May 8	4153	297	43	740
Dodge, James M., Philadelphia, Pa., assignor to Ewart Manufacturing Company, Chicago, Ill. Drive-chain	393,220	Nov. 20	1522	399	45	906
Dodge Manufacturing Company. (See Philion, George, assignor.)						
Dodge, Owen L., Corinth, Mich. Sleigh-knee	387,950	Aug. 14	4147	308	44	800
Dodge, Prentiss C., Burlington, assignor to Willard Manufacturing Company, St. Albans, Vt. Suspenders	387,054	July 31	2547	670	41	527
Dodge, Thomas F., Lawton, Mich. Registering and canceling ballot-box	391,518	Oct. 23	1875	503	45	385
Dodgo, Wallace H., Mishawaka, Ind. Means for securing pulleys on shafts	383,291	May 22	2100	554	43	943
Dodgo, Wallace H., Mishawaka, Ind. Slack-take-up for rope transmission	383,282	May 22	2101	554	43	944
Dodge, Wallace H., and R. D. O. Smith, Mishawaka, Ind. Manufacture of woolen boots	376,372	Jan. 10	910	238	42	183
Dodge, Wallace H., and R. D. O. Smith, Mishawaka, Ind. Woolen boot	376,373	Jan. 10	911	239	42	183
Dodge, Walter E., Everett, assignor to National Tube Works Company, Boston, Mass. Injector	383,109	May 22	1850	481	43	896
Dodgson, Earl A., Batavia, N. Y. Powder-dusting machine	388,184	Aug. 21	1538	409	44	881
Dodson, Darien W. (See Richards, Francis H., assignor.)						
Dodson, Wilson P., Philadelphia, Pa. Sash-fastener	394,962	Dec. 25	1921	496	45	1470
Dodson, Wilson P., assignor of one-half to F. H. Eldridge, Philadelphia, Pa. Disintegrator and strainer	386,061	July 10	1065	285	44	218
Doilsworth, Robert. (See Holdsworth, John W., assignor.)						
Dodwell, John T. (See Brake, Archibald, assignor.)						
Doerflinger, William, La Crosse, Wis. Apparatus for storing, measuring, and exhibiting dry goods, &c.	384,747	June 19	1354	353	43	1395
Doering, Herman, Reedsburg, Wis. Stitching-horse	378,295	Feb. 21	1439	375	42	791
Doering, William, Kansas City, Mo. Vegetable-cutter	375,806	Jan. 3	112	32	42	26
Doerr, Henry J., Newark, N. J. Air-pump	378,666	Feb. 28	1976	524	42	906
Doersom, Philip, Lancaster, Pa. Fifth-wheel for vehicles	378,240	Feb. 21	1354	357	42	776
Doetschmann, Albert, Nyack, N. Y. Extinguishing fires in stoves	383,283	May 22	2102	555	43	914
Dorgett, John, assignor of one-half to L. J. King, Plain City, Ohio. Combined telegraph key and sounder	384,350	June 12	770	200	43	1275
Doherty, Daniel E. (See Brown, Perry, assignor.)						
Doherty, Daniel E. (See Brown and Trabue, assignors.)						
Dohis, Prosper A., Paris, France. Spring-motor	382,033	May 1	239	61	43	557
Dolan, Edward J., assignor to W. Haacker, trustee, Philadelphia, Pa. Seam for sheet metal	376,817	Jan. 24	1600	419	42	328
Dolan, Martin F., Brooklyn, N. Y. Clothes-horse	379,378	Mar. 13	747	203	42	1113
Dolan, Robert P., assignor, by mesne assignments, of one-half to F. E. Smith, Steelton, Pa. Apparatus for transferring blooms	379,507	Mar. 13	941	253	42	1150
Deland, Timothy, Wellington, Ohio. Road-cart	392,414	Nov. 6	353	87	45	661
Delby, Thomas. (See Abbott, Levi, assignor.)						
Delge, Carl B., Brooklyn, N. Y. Chin-rest for the dead	384,513	June 12	1011	263	43	1320
Dell, Charles L., St. Joseph, Mo. Commode, earth closet, or similar appliance	368,558	July 24	1841	476	44	384
Dell, Charles L., St. Joseph, Mo. Commode, earth-closet, or similar appliance	368,544	Aug. 28	2061	554	44	990
Delliver, Garret Q., Plainfield, N. J. Extension-table	393,890	Dec. 4	224	62, 63	45	1117
Delliver, James W., Everett, Mass. Guard and canopy-support for boats	393,221	Nov. 20	1525	399	45	906
Dollner, Charles F. (See Rose, John, assignor.)						
Dolloff, Orville C., Chelsea, and R. M. Eastman, Boston, Mass. Sewing-machine	377,888	Feb. 14	829	212	42	667
Dolsen, William B., Moberly, Mo. Device for loading vehicles	383,636	May 29	2622	694	43	1050
Domcier, Albert, et al. (See Mitting, Elemezer K., assignor.)						
Domcier, Albert, and O. C. Hagemann, London, England, assignors to said Domcier and J. Glatz, Brooklyn, N. Y. Making resin-soap and glycerine	385,103	June 26	1904	43	1512	
Dominy, Alfred L., East Batavia, Ill. Car-mover	394,254	Dec. 11	768	203	45	1226
Don, Alfred, 21 Cooper Street, Redfern, Sydney, New South Wales, Australia. Smoke-consuming apparatus for steam-boilers	376,948	Jan. 24	1778	468	42	363
Donahue, Daniel, New York, N. Y. Separating oil from feed-water	386,114	July 17	1151	306	44	229
Donahue, James H., and E. T. Bradley, Swanton, Vt. Flexible ruler	386,869	July 31	2292	602	44	477
Donahue, John J. (See Thompson, William D., assignor.)						
Donahue, Thomas, assignor to Branford Lock Works, Branford, Conn. Key	391,468	Dec. 11	1087	282	45	1247
Donald, David, Penryn, county of Cornwall, England. Steam-actuated valve	393,461	Nov. 27	1875	493	45	983
Donald, Peter, New Orleans, La. Steam-boiler	387,776	Aug. 14	870	224	44	746
Donald, William J., Tunnel City, Wis. Crutch attachment	390,011	Sept. 25	1838	487	44	1446
Donaldson, Richard A., et al. (See Hipperling, William, assignor.)						
Donaldson, Walter H., assignor of one-half to R. B. Reid, San Francisco, Cal. Metallic railway-tie	381,039	Apr. 10	1151	307	43	231
Doney, Asa. (See Zeck, Michael, assignor.)						
Doney, Charles, Ottawa, Ontario, Canada. Heel-plate	382,694	May 15	1244	324	43	766
Donkel, Lloyd H., Winter Park, Fla. Velocipede	381,134	June 5	434	120	43	1204
Donkel, Lloyd H., Winter Park, Fla. Velocipede-wheel	381,135	June 5	435	121	43	1205
Donlon, Thomas, Cortland, N. Y. Jaw-trap	392,415	Nov. 6	353	87	45	661
Donne, William, et al. (See Biggin, Mary, assignor.)						
Donnell, Columbus W., Fulton, Mo. Bed-spring	391,060	Apr. 10	1152	307	43	231
Donnell, Edward P., Chicago, Ill. Perforating-machine	379,379	Mar. 13	748	203	42	1113
Dennell, Edward P., Chicago, Ill. Paper-cutting machine	383,714	May 29	2738	721	43	1075
Donnell, Edward P., and S. McAuliffe, assignors to E. P. Donnell Manufacturing Company, Chicago, Ill. Book-stapling machine	386,972	July 31	2437	641	44	506
Donnell Manufacturing Company, E. P. (See Donnell and McAuliffe, assignors.)						
Donnelly, Edward. (See McMurtry, Samuel, assignor.)						
Donnelly, John, San Mateo, Cal. Gate	381,136	June 5	436	121	43	1205
Donner, Hermann, et al. (See Beyer, Albin, assignor.)						
Donovan, Henry, New Bedford, Mass. Crimping-machine	388,845	Sept. 4	53	14, 15	44	1082
Donovan, John, Boston, Mass. Boot or shoe stretcher	385,508	July 3	264	67	44	53
Donovan, John E., Cincinnati, Ohio. Copying-press	395,122	Dec. 25	2168	559	45	1517
Donovan, Richard E., F. Hazlett, and J. Johnston, Dublin, county of Dublin, Ireland. Apparatus for blowing glass	386,302	July 17	1434	379	44	293
Dooley, Ellis B., et al. (See Skelton, William M., assignor.)						
Dooley, John W., Wyoming, Ill. Electric ship-signal	378,876	Mar. 6	30	8	42	972
Dooley, Patrick F., Malone, N. Y. Roll-grinder	391,127	Oct. 16	1344	355	45	272

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Doelittle, George, assignor, by mesne assignments, to S. H. Hubbard, Bridgeport, and J. K. Beach, New Haven, Conn., trustees. Manufacture of upholstery-tufts .....	384,896	June 19	1580	411	43	1437
Doolittle, Marcus S., North Haven, and W. A. Doolittle, Hamden, Conn. Sulky-harrow .....	378,578	Feb. 28	1849	{ 488 489 }	{ 42 }	881
Doolittle, Wilson A. (See Doolittle, Marcus S. and W. A.) .....						
Doran, Bernard S., Johnstown, Pa. Railway track and joint .....	385,253	June 25	2126	542	43	1557
Doray, Joseph, Worcester, Mass. Block-rabbit plane .....	379,940	Mar. 27	1618	431	42	1299
Dorchester, Edward G., Geneva, N. Y. Cartridge-loader .....	387,556	Aug. 7	545	{ 141 142 }	{ 44 }	677
Doremus, William T., Flatbush, N. Y. Draft, check, or other money order or instrument .....	376,949	Jan. 24	1780	468	42	363
Doremus, William T., Flatbush, N. Y. Pillow and its slip .....	395,043	Dec. 25	2037	526	45	1499
Dorflinger, Louis J. (See Thirsk, Richard, assignor.) .....						
Doriot, Constant, Philadelphia, Pa. Dental engine .....	389,796	Sept. 18	1512	399	44	1376
Dorman, Benjamin H. (See Phillips, John O., assignor.) .....						
Dorman, John F. W., Baltimore, Md. Brake and belt shifter .....	380,253	Mar. 27	2061	551	42	1386
Dorman, Samuel M., Newport, Vt. Toe-weight for horseshoes .....	386,388	July 17	1544	409	44	315
Dormer, Joseph, and E. M. Marks, Cincinnati, Ohio. Making caps .....	394,469	Dec. 11	1058	282	45	1287
Dornitzter, Anna, New York, N. Y. Safety watch-pocket .....	380,279	Mar. 27	2094	560	42	1393
Dornbusch, Carl, Schlottwitz, Saxony, Germany. Recording weighing-scale .....	393,299	Nov. 20	1637	431	45	928
Dornin, George W. (See Gibbs, William C., assignor.) .....						
Dorr, Edward, Kansas City, Mo. Block for concrete pavements .....	391,785	Oct. 30	2242	610	45	469
Dorington, John W., and L. G. Fay, Worcester, Mass. Curtain-hanger .....	388,846	Sept. 4	56	15	44	1083
Dorris, James O., Auburn, Tex. Head-frame for cattle .....	390,287	Oct. 2	123	35	45	27
Dorsey, Basil C., Tulare, assignor of one-half to W. L. Morrow, San Luis Obispo, Cal. Disk cultivator and seeder .....	384,748	June 19	1356	354	43	1395
Dorst, John W., Detroit, Mich. Pillow-sham holder .....	384,239	June 12	597	162	43	1245
Dosch, Leo A. and O. L., Newport, Ohio; said O. L. Dosch assignor to said Leo A. Dosch. Shutter-worker .....	378,388	Feb. 21	1563	409	42	816
Dosch, Oliver L. (See Dosch, Leo A. and O. L.) .....						
Doscher, Marten, New York, N. Y. Plane .....	390,574	Oct. 2	530	139	45	107
Dose, Henry, New Athens, Ill. Veterinary remedy .....	393,424	Nov. 27	1821		45	972
Doten, Clark W., assignor three-fourths to E. H. Morse, S. P. Blackburn, and C. A. Austin, Boston, Mass. Rotary engine .....	386,774	July 24	2113	554	44	435
Doten, George H., et al. (See Ryder, Joshua H., assignor.) .....						
Doty, Albert J., assignor, by mesne assignments, to Goodwin Gas Stove and Meter Company, Philadelphia, Pa. Heating gas-burner .....	390,352	Oct. 2	218	57	45	46
Doty, Charles E., Rock Falls, assignor to E. E. Andrews, Sterling, Ill. Street-railway-track cleaner .....	388,403	Aug. 28	1874	501	44	952
Doty, Hezekiah, San José, Cal. Churn .....	382,639	May 8	1155	297	43	740
Doty, Joseph, Wellsville, N. Y. Corner-iron .....	380,871	Apr. 10	853	230	43	176
Doub, John H., and F. Robbins, Walnut, Kans.; said Robbins assignor to said Doub. Washing-machine .....	384,311	June 12	702	187	43	1264
Doubleday, Harry M., Columbus, Ohio. Incandescent-electric-lamp fixture .....	378,358	Feb. 21	1526	399	42	800
Doubleday, Harry M., Columbus, Ohio. Incandescent-lamp attachment .....	383,046	May 15	1751	453	43	867
Dougal, Charles H., et al. (See Bostian, Charles P., assignor.) .....						
Dougherty, Albert W. (See Higbie and Dougherty.) .....						
Dougherty, Clarence E., Newark, N. J. Pneumatic holder for mirrors and other articles .....	377,995	Feb. 14	982	256	42	700
Dougherty, Edward D. (See Dale, John H., assignor.) .....						
Doughty, Charles L. (See Gholston, William C., assignor.) .....						
Doughty, John J., Lake City, Minn. Device for stretching and tightening elevator-belts .....	390,213	Oct. 2	26	7	45	8
Douglas, Charles H., Chicago, Ill. Emery-wheel dresser .....	389,064	Sept. 4	376	98	44	1144
Douglas, Charles H., assignor of one-half to C. S. Baker, Chicago, Ill. Machine for making blanks for chain-cutter teeth .....	383,347	May 22	2182	578	43	959
Douglas, Charles H., assignor, by mesne assignments, to Chicago Mortising Machine Company, Chicago, Ill. Endless-chain mortising-machine .....	379,566	Mar. 20	1028	{ 275 276 }	{ 42 }	1175
Douglas, Edward, assignor to W. & B. Douglas, Middletown, Conn. Telescopic stop-cock for water-service .....	386,115	July 17	1152	306	44	240
Douglas, George W., San Francisco, Cal. Depression-pulley for cable railways .....	377,743	Feb. 14	590	152	42	621
Douglas, George W., San Francisco, Cal. Cable railway. (Reissue) .....	10,953	Aug. 28	2446	660	44	1063
Douglas, James, Jr., assignor to North American Metalline Company, New York, N. Y. Self-lubricating journal-box .....	379,531	Mar. 13	971	262	42	1157
Douglas, W. & B. (See Douglas, Edward, assignor.) .....						
Douglas, William S., et al. (See Dixon, John, assignor.) .....						
Douglass, Benajah H., Jr. (See Bartholomew, Joel O., assignor.) .....						
Douglass, J. Walter. (See Bormann, Hermann, assignor.) .....						
Douglass, J. Walter. (See Briggs, J. Henry, assignor.) .....						
Douglass, Roswell S., et al. (See Hamblin, Silvanus and S. M., assignors.) .....						
Douglass, Samuel W., Fort Collins, Colo., assignor to M. C. Bullock Manufacturing Company, Chicago, Ill. Expansion drill or cutter .....	392,592	Nov. 13	612	154	45	718
Doutney, George, Brooklyn, N. Y. Reversible sample-envelope .....	392,501	Nov. 6	477	120	45	685
Dover Stamping Company. (See Hadley, Ethan, assignor.) .....						
Dow, George B. N., and J. H. Willey, Manchester, N. H. Whiffletree .....	387,216	Aug. 7	29	6	44	578
Dow, Joseph H., assignor of one-half to W. Chisholm, Cleveland, Ohio. Rotary steam-engine .....	392,545	Nov. 6	539	136	45	697
Dow, Josiah, Lowell, Mass. Duplex pump or blower .....	378,042	Feb. 14	1047	{ 273 274 }	{ 42 }	712
Dow, Lorenzo, Boston, Mass. Hitching-post .....	390,951	Oct. 9	1052	278	45	213
Dow, Lorenzo, Boston, Mass., assignor to American Type Setter Company, Portland, Me. Type-distributing machine .....	394,255	Dec. 11	769	{ 203 204 205 }	{ 45 }	1227
Dow, Samuel K., et al. (See Cobb, Lucius J., assignor.) .....						
Dowlin, Marshall R., North Adams, Mass. Halter .....	379,056	Mar. 6	285	83	42	1020
Dowling, Robert H., assignor of two-thirds to C. H. and C. Follett, Newark, Ohio. Car-coupling .....	379,888	Mar. 20	1540	406	42	1274
Dowling, Robert H., assignor of two-thirds to C. and C. H. Follett, Newark, Ohio. Car-coupling .....	385,301	June 26	2205	565	43	1572
Dowling, Robert H., assignor of two-thirds to C. H. and C. Follett, Newark, Ohio. Car-coupling .....	387,584	Aug. 7	595	155	44	686
Dowling, Thomas W., Detroit, Mich. Window-screen .....	380,747	Apr. 10	664	{ 183 184 }	{ 43 }	142
Dowling, Thomas W., Detroit, Mich. Window-screen .....	390,117	Sept. 25	2006	534	44	1481
Downer, James R., et al. (See Burns and Buckman, assignors.) .....						
Downer, James R., et al. (See Rice, Henry, assignor.) .....						
Downer, Victor E., et al. (See Chadbourne, Zebulon L., assignor.) .....						
Downerd, Hiram S., Zanesville, Ohio. Electrical annunciator .....	384,430	June 12	881	229	43	1297

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Downes, David H., Pullman, Ill. Forging-machine	383,047	May 15	1751	433	43	867
Downey, Alva C., Spring Lick, assignor of one-half to N. C. Tifford, Caneyville, Ky. Harrow	389,138	Sept. 4	507	129	44	1166
Downey, John T., and G. P. Funkhouser, Plattsburg, Mo. Attachment for cultivator-shields.	393,099	Nov. 20	1348	352	45	870
Downing, Burton J., Seely, Kans. Railway-switch	377,889	Feb. 14	831	213	42	668
Downing, Wellington, assignor to Brown Folding Machine Co., Erie, Pa. Paper-folding machine	377,354	Jan. 31	2374	686	42	482
Downing, Wiley W. (See Seale and Downing.)						
Downing, William W., Peoria, Ill. Globe for electric-arc lamps	390,846	Oct. 9	906	239	45	134
Downs, Benjamin J., Somerville, assignor to Star Brass Manufacturing Company, Boston, Mass. Oil-cup	388,767	Aug. 28	2393	646	44	1052
Downs, George N., Chicago, Ill., assignor to Troy Laundry Machinery Company, Troy, N. Y. Centrifugal machine	380,555	Apr. 3	376	107	43	77
Downs, Harry T., Saratoga Springs, N. Y. System of electrical gas lighting and extinguishing	389,692	Sept. 18	1367	358	44	1345
Downton, Robert L., St. Louis, Mo. Dust arrester and collector	383,801	May 29	2892	763	43	1102
Dowson, Ralph, and J. Taylor, Bolton, county of Lancaster, England. Alarm-valve for automatic fire-extinguishers	384,514	June 12	1012	263	43	1321
Doyal, Ira C., Chumley, Ala. Bee-hive	387,217	Aug. 7	30	7	44	578
Doyle, Frank, Chicago, assignor of one-half to J. Bainslow, Lake View, Ill. Apparatus for opening furnace-doors	384,137	June 5	436	121	43	1205
Doyle, James J., Albany, N. Y. Banjo	394,348	Dec. 11	918	212	45	1257
Doyle, John, Hoboken, N. J., assignor to himself and C. C. Dusenbury, Lake Mahopac, N. Y. Battery-zinc	385,254	June 26	2127	543	43	1557
Doyle, John, Hoboken, N. J., assignor to himself and C. C. Dusenbury, Lake Mahopac, N. Y. Electric motor	391,590	Oct. 23	1971	532	45	406
Doyle, Joseph P., Boston, Mass. Reversible back for car-seats	387,404	Aug. 7	303	78	44	630
Drabble, George T., et al. (See Buzzell, William R., assignor.)						
Drake-Brockman, Ralph R. E. (See Sample, James, assignor.)						
Drake, Earl W., Poynette, Wis. Lever for sulky-plows	387,777	Aug. 14	872	225	44	746
Drake, Edwin L., Winchester, Tenn. Combination-padlock	379,508	Mar. 13	943	254	42	1151
Drake, Euoch F., and A. C. Wait, Salina, Kans. Thill-coupling	391,519	Oct. 23	1876	504	45	383
Drake, Fred M., Wilkes-Barre, Pa. Bicycle	390,952	Oct. 9	1053	278	45	213
Drake, John B., Goshen, Ind. Pump	384,749	June 19	1357	354	43	1395
Drake, John C., Altus, Ark. Washing-machine	383,110	May 22	1852	484	43	896
Drake, John I. (See Russell, Charles W., assignor.)						
Drake, Lucian E. (See Freeman, Josiah, assignor.)						
Drake, Spencer L., Swampscott, Mass. Hat-hanger	384,897	June 19	1580	411	43	1437
Drake, Zachariah J., assignor of one-third to J. L. Napier, Drake, S. C. Millstone-pick	394,128	Oct. 16	1336	356	45	272
Draper, Charles, Springfield, Mass. Electric stop-motion for knitting-machines	382,593	May 8	1092	281	43	728
Draper, Daniel, Hastings-upon-Hudson, N. Y. Recording-thermometer	380,872	Apr. 10	854	231	43	176
Draper, George A. (See Draper, William F. and G. A.)						
Draper, Solomon, Sullivan, Ind. Cultivator	387,778	Aug. 14	871	225	44	746
Draper & Sons, George. (See Carroll, William T., assignor.)						
Draper & Sons, George. (See Cunningham, Henry C., assignor.)						
Draper & Sons, George. (See Draper, William F. and G. A., assignors.)						
Draper & Sons, George. (See Driscoll and Boylen, assignors.)						
Draper & Sons, George. (See Durkin, Daniel, assignor.)						
Draper & Sons, George. (See Hillard, James P., assignor.)						
Draper & Sons, George. (See Roper, Charles F., assignor.)						
Draper & Sons, George. (See Watters, George, assignor.)						
Draper & Sons, George. (See Wood, Anrin, assignor.)						
Draper, William F., Hopedale, Mass. Support for spinning-spindles	391,460	Oct. 23	1798	481	45	368
Draper, William F., Hopedale, Mass. Support for spinning-spindles	391,461	Oct. 23	1799	481	45	368
Draper, William F., Hopedale, Mass. Support for spinning-spindles	391,462	Oct. 23	1799	481	45	369
Draper, William F., Hopedale, Mass. Support for spinning-spindles	392,912	Nov. 13	1078	279	45	811
Draper, William F. and G. A., assignors to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles	378,877	Mar. 6	31	8	42	972
Draper, William F. and G. A., assignors to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles	383,048	May 15	1754	453	43	867
Drass, Stephen B. (See Boughton, Epcetus, assignor.)						
Drayer, Adam U., and H. C. Boykin, assignors to Wilson & McCallay-Tobacco Company, Middletown, Ohio. Plug tobacco cutter	389,877	Sept. 25	1649	436	44	1408
Dreher, Caspar, Detroit, Mich. Draft apparatus for vehicles	388,847	Sept. 4	57	15	44	1063
Dreichlinger, Isaac, New York, N. Y. Button	389,693	Sept. 18	1369	358	44	1345
Drendel, Paul, Chicago, Ill., assignor to Gilbert & Bennett Manufacturing Company, Georgetown, Conn. Conductor-strainer	380,873	Apr. 10	856	231	43	176
Dresbach, Clifton R. (See Grove, William H., assignor.)						
Dresback, Clifford R. (See Grove, William H., assignor.)						
Dresses, Henry. (See Lodge and Dresses.)						
Dressel, George C., New York, N. Y. Signal-lamp	390,288	Oct. 2	124	35	45	28
Dresser, Charles E., et al. (See Gould, Charles E., assignor.)						
Dresser, Solomon R., Bradford, Pa. Pipe-coupling	381,916	May 1	26	7, 8	43	519
Dresser, Solomon R., Bradford, Pa. Anchor or support for deep-well packers or tubing	387,675	Aug. 14	726	186	44	719
Dresser, Solomon R., Bradford, Pa. Pipe-coupling	389,797	Sept. 18	1515	400	44	1376
Drew, Hudson M., and J. A. Grant, New Limerick, Me. Lantern	381,826	Apr. 24	2304	599	43	482
Drew, Walter J., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper	376,028	Jan. 3	424	113	42	85
Drew, Walter J., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper	388,768	Aug. 28	2394	646	44	1052
Drew, Walter J., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper	391,129	Oct. 16	1337	356	45	272
Drew, William W. (See Webster and Drew.)						
Driefer, Conrad L., London, Ontario, Canada. Cigar wrapping and finishing machine	389,955	Sept. 25	1757	465 } 466 }	44	1430
Driefer, Conrad L., London, Ontario, Canada. Cigar-making machine	389,956	Sept. 25	1760	465 } 466 }	44	1431
Driefer, Conrad L., assignor of one-half to C. D. Shaw, London, Ontario, Canada. Cigar-machine	390,160	Sept. 25	2066	551 } 552 }	44	1494
Driggs, William H., and S. Schroeder, Washington, D. C. Breech-loading ordnance	378,828	Feb. 28	2219	591	42	951
Driller, Frank, Port Jervis, N. Y. Cut-off for spouts	381,990	May 1	152	39	43	513
Driscoll, Andrew A., North Branch, Va. Combined square, plumb, and level	391,022	Oct. 16	1204	320	45	218
Driscoll, William, and J. F. Boylen, Taunton, assignors of one-half to G. Draper & Sons, Hopedale, Mass. Fulcrum for the weight-levers for the rolls of spinning-frames	381,681	Apr. 24	2072	542	43	430

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Driver, William, Manville, R. I. Picker-check for looms.	382,640	May 8	1156	298	43	740
Drodzewski, Julius R., assignor of two-thirds to J. McCarter and J. M. Ormsbee, Erie, Pa. Steam-pipe connection between railway-cars.	377,065	Jan. 31	1950	512	42	403
Droughton, John J., East Newark, N. J. Concentrator.	383,284	May 22	2103	555	43	944
Drude, Louis, and E. St. Arnaud, Meriden, Conn. Card-table attachment.	378,241	Feb. 21	1355	357	42	777
Drude, Louis, and E. St. Arnaud, Meriden, Conn. Card-table attachment.	378,242	Feb. 21	1356	357	42	777
Drueck, William R., assignor to N. Morris, Chicago, Ill. Machine for soldering in vacuo.	394,840	Dec. 18	1716	444 445	45	1422
Druid Felt Company. (See Wasburn, Junius B., assignor.)						
Drummond, George E., trustee, <i>et al.</i> (See Pearson, George D., assignor.)						
Drummond, James T., St. Louis, Mo. Utilizing tobacco waste.	384,565	June 12	1086	283 284	43	1335
Drummond, James T., St. Louis, Mo. Apparatus for stemming tobacco.	384,566	June 12	1087	284	43	1335
Drummond, John J. (See Gazeley, Frederick, assignor.)						
Drury, Joseph F., St. Vincent, Ky. Tobacco-frame.	388,646	Aug. 28	2213	595	44	1018
Du Bois, Frederick N., New York, N. Y. Apparatus for transmitting power.	386,116	July 17	1154	306 307	44	240
Du Bois, John H., Hoboken, N. J. Coal-chute.	388,542	Aug. 28	2062	555	44	990
Du Bois, Louis, <i>et al.</i> (See Eldredge, John V. D., assignor.)						
Du Boulay, Digby, London, England. Motor.	380,648	Apr. 3	511	143	43	104
Du Brul, Napoleon, Cincinnati, Ohio. Temporary partition for cigar-boxes.	382,221	May 1	500	130	43	606
Du Cray, Charles C., Iowa County, Wis., assignor to himself and H. J. F. Webb, Dubuque, Iowa. Corn-planter.	381,223	Apr. 17	1392	372	43	287
Du Pont, Alfred V., Louisville, Ky., assignor to Johnson Steel Street Rail Company, of Kentucky. Portable connecting track.	381,874	Apr. 24	2367	615 616	43	494
Dubey, Edward A., assignor of one-fourth to J. Langan, Brooklyn, N. Y. Letter-box.	378,955	Mar. 6	132	38	42	992
Dubey, Edward A., assignor of one-half to T. B. Rutan, Brooklyn, N. Y. Sign.	380,026	Mar. 27	1751	468	42	1324
Dubey, Edward A., assignor of one-half to T. B. Rutan, Brooklyn, N. Y. Street-lamp.	391,950	Oct. 30	2490	674	45	519
Dubinski, Benjamin. (See Ehrlich, Dubinski, and Rein.)						
Dubinski, Benjamin, assignor to C. P. Budd, L. J. and W. J. Kiser, St. Louis, Mo. Telegraphic call for messengers, &c.	389,839	Sept. 18	1568	416	44	1386
Duboce, Augustin, San Francisco, Cal. Advertising apparatus.	379,105	Mar. 6	359	102	42	1033
Dubose, Ned, Troy, Ala. Ironing-table.	391,303	Oct. 16	1579	418	45	318
Dubreul, Victor, New York, N. Y. Suspenders.	386,973	July 31	2440	642	44	506
Ducharme, Louis, and G. Erard, Woonsocket, R. I. Washing-machine.	386,239	July 17	1348	355	44	277
Duchemin, Edmund H., Newburyport, Mass. Transon-pivot.	394,103	Dec. 4	537	144	45	1173
Ducommun, Charles, Los Angeles, Cal. Instrument for picking oranges.	387,283	Aug. 7	118	31	44	585
Dudley, Daniel, Bangor, Me. Wigwam slipper.	391,232	Oct. 16	1480	393	45	300
Dudley, George D., assignor to Woods, Sherwood & Co., Lowell, Mass. Egg-beater.	386,424	July 17	1611	423	44	332
Dudley, Plimmon H., New York, N. Y. Apparatus for impregnating wood.	381,682	Apr. 24	2073	542	43	440
Dudley, Robert S. (See Warren and Dudley.)						
Dudley, Sumner A., Hopedale, Mass., assignor to American Spindle Company, Saco, Me. Loom-shuttle.	394,963	Dec. 25	1922	497	45	1470
Dudley, Walter J., trustee. (See Dudley, Walter J., assignor.)						
Dudley, Walter J., assignor, by mesne assignments, to W. J. Dudley, trustee, Everett, Mass. Auxiliary fire-alarm apparatus.	387,585	Aug. 7	596	156	44	686
Dudley, William W., <i>et al.</i> (See Hotchkiss, Zeroy P., assignor.)						
Duebendorf, Gottlieb, Hamilton, Minn. Music-holder.	388,270	Aug. 21	1669	446	44	909
Dueber, John C. (See Bradley, William W., assignor.)						
Dueber, John C. (See Coburn, John A., assignor.)						
Duecker, Claus, New Holstein, Wis. Churn.	391,520	Oct. 23	1878	504	45	385
Duell, Charles H., <i>et al.</i> (See Dewey, Mark W., assignor.)						
Duell, Charles H. (See Peckham and Laass, assignors.)						
Duell, Charles H., and E. Laass, Syracuse, assignors to Chappell, Chase, Maxwell & Co., Oneida, N. Y. Coffin-fastener.	377,355	Jan. 31	2374	686	42	482
Duennisch, Louis, Sandusky, Ohio. Plue-cleaner.	388,248	Sept. 4	59	16	44	1024
Duff, Howard S., Philadelphia, Pa. Lighting device for toilet-mirrors.	388,346	Aug. 21	1781	475	44	930
Duff, Patrick J., Bridgeport, Conn. Automatic feed-water regulator.	393,623	Nov. 27	2135	558	45	1035
Duffee, James W., and C. Weston, Washington Court-House, Ohio. Flower-stand.	379,637	Mar. 20	1140	302	42	1196
Duffie, Frank B., Mound Valley, Kans. Apparatus for moving houses.	387,630	Aug. 14	662	172	44	706
Duffey, Hugh. (See Winter and Duffey.)						
Duffey, Kate M., Astoria, Oreg. Bed pan.	380,478	Apr. 3	251	69	43	51
Duffy, Arthur, Ivanhoe, and C. J. Reeling; said Reeling assignor, by mesne assignments, to M. Outcalt, Cincinnati, Ohio. Cradle.	378,389	Feb. 21	1564	409	42	816
Duffy, James, Buffalo, N. Y. Tube-expander.	383,111	May 22	1833	484	43	896
Duffy, William, Bermondsey, county of Surrey, England. Wood-block flooring.	377,098	Jan. 31	2004	525	42	413
Dufraigne, Joseph, Bucyrus, Ohio. Treadle.	394,470	Dec. 11	1088	282	45	1287
Dugan, Hugh P., Mound City, Kans. Painting-machine.	387,346	Aug. 7	219	57	44	613
Dugar, Delano H., Cedartown, Ga. Car-axle box.	379,767	Mar. 20	1328	354	42	1234
Duggan, John A., Quincy, Mass. Store-service apparatus.	380,315	Apr. 3	13	3	43	5
Duhring, Charles A., Philadelphia, Pa. Lantern-lens.	380,878	Sept. 25	1649	437	44	1408
Dührkop, Fritz, New York, N. Y. Baker's oven.	379,941	Mar. 27	1620	431	42	1299
Dührkop, Fritz, New York, N. Y. Baker's oven.	380,556	Apr. 3	379	108	43	77
Duisberg, Carl, Elberfeld, Germany. Blue azo coloring-matter.	382,185	Aug. 21	1540		44	821
Duisberg, Carl, assignor to Farbenfabriken, vormals Fr. Bayer & Co., Elberfeld, Prussia, Germany. Manufacture of coloring-matters.	394,841	Dec. 18	1718		45	1423
Duke, James B. (See Underwood, Joseph B., assignor.)						
Dulebohn, John G. (See Herr and Dulebohn.)						
Dulière, Henry, assignor of two-thirds to J. Masson, Meadville, Pa. Glass-melting furnace.	376,029	Jan. 3	425	113	42	85
Dulles, William, Jr., New York, N. Y. Electric dispatch-tube.	394,161	Dec. 11	621	166 167	45	1199
Dum, William J., South Bloomfield, Ohio. Motor.	380,557	Apr. 3	379	108	43	77
Dumaresq, Philip K. (See Litchfield, Isaac W., assignor.)						
Dumbeck, Gustave A., assignor of one-half to J. P. Gallagher, Erie, Pa. Swing.	379,768	Mar. 20	1329	355	42	1234
Dummer, Paul E. (See Malström and Dummer.)						
Dumont, James H., New York, N. Y. Water cooler and filter.	388,347	Aug. 21	1781	475 476	44	930
Dumontier, Alexander C., assignor of two-thirds to W. M. Dwight and F. M. Lillibridge, Detroit, Mich. Knife for planing-machines.	389,139	Sept. 4	507	129	44	1167
Dunbar, Alexander, Guelph, Ontario, Canada. Machine for making casks and barrels.	385,850	July 10	775	205	44	158
Dunbar, Andy L. (See Wilkins, Alexander G., assignor.)						
Dunbar, William E., Waxahachie, Tex. Machine for putting ties on bales.	382,222	May 1	501	130	43	606
Dunbar, William O., Altoona, Pa. Car-axle box.	392,593	Nov. 13	615	154	45	719
Duncan, Beverly W., assignor of one-half to I. Leedy, Dora, Ind. Hog-trap.	380,649	Apr. 3	511	143	43	104

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Duncan, Charles H. (See Rider, John T., assignor.)						
Duncan, Jack B. (See Durnil, Cecil M., assignor.)						
Duncan & Johnson. (See Duncan, William, assignor.)						
Duncan & Johnston. (See Apoll, Jacob, assignor.)						
Duncan, Louis. (See Wilkes, Gilbert, assignor.)						
Duncan, Louis, Baltimore, Md. Secondary battery	391,471	Dec. 11	1089	283	45	1287
Duncan, Louis, Baltimore, Md. Making secondary-battery plates	394,472	Dec. 11	1091	283	45	1288
Duncan, Louis, Baltimore, Md. Making secondary-battery plates	394,473	Dec. 11	1091	283	45	1288
Duncan, Louis, Baltimore, Md. Secondary battery	394,471	Dec. 11	1092	283	45	1288
Duncan, William, Hinsdale, assignor to Duncan & Johnson, Chicago, Ill. Embossing-die	380,099	Mar. 27	1853	493	42	1344
Dundon, Patrick F., San Francisco, Cal. Steam-boiler	391,359	Oct. 16	1652	437	45	332
Dungan, William H., Rockland, Ind. Fence	391,033	Oct. 16	1206	320	45	248
Dunham, Austin C. (See Merrill, Arthur H., assignor.)						
Dunham, Calvin M., St. Joseph, Mo. Interest-calculator	384,431	June 12	882	230	43	1297
Dunham, Charles H., et al. (See Wellman, Willard F., assignor.)						
Dunham, Charles H., Boston, Mass. Sliding door for freight-cars	378,579	Feb. 28	1851	470	42	882
Dunham, George, Unionville, Conn. Mechanical movement	376,769	Jan. 24	1522	400	42	314
Dunham, George, Unionville, Conn., assignor to G. M. Dunham, West Newton, Pa. Nut-making machine	391,951	Oct. 30	2490	674 675	45	520
Dunham, George H., et al. (See Smith, Roswell T., assignor.)						
Dunham, George M. (See Dunham, George, assignor.)						
Dunham, George M., assignor to Dunham Nut Machine Company, Unionville, Conn. Nut-machine	386,805	July 31	2170	572 573	44	456
Dunham, Joseph M., and J. McKemie, Holyoke, assignors of one-third to B. F. Nichols, Springfield, Mass. Drawing-rolls for spinning-frames, &c.	392,950	Nov. 13	1132	294	45	821
Dunham Nut Machine Company. (See Dunham, George M., assignor.)						
Dunham, Orville M. (See Jack, William H., assignor.)						
Dunham, Thomas H., Boston, Mass. Making banding for spinning-machines	384,138	June 5	438		43	1205
Dunkel, Elias. (See Underwood, Thomas J., assignor.)						
Dunkle, Abram B., Steelton, Pa. Holder for window-shade brackets	394,644	Dec. 18	1340	360	45	1355
Dunkle, Galusha C., Boston, Mass. Fire-grate for furnaces, stoves, &c.	388,617	Aug. 28	2214	595	44	1019
Dunlany, Patrick, et al. (See Wilcox, William E., assignor.)						
Dunlavy, Mathew H. (See Bechtold, John, assignor.)						
Dunlap, William D., Selma, Ala. Door-check	385,599	July 3	401	102	44	79
Dunlap, William R., Cincinnati, Ohio. Centrifugal reel	388,638	Aug. 21	1261	313	44	832
Dunn, Andrew S., New Brighton, Pa. Band-saw-filing machine	383,944	June 5	133	45	43	1149
Dunn, Ballard S., New York, N. Y. Gas and air commingler	379,769	Mar. 20	1331	335 356	42	1231
Dunn, Daniel F., assignor of one-half to J. S. Ellis, Columbus, Ohio. Machine for truing valve plugs, seats, &c.	378,196	Feb. 21	1274	337	42	762
Dunn, Dennis, Mahanoy City, Pa. Beer-pump and aerating device	377,711	Feb. 7	542	128	42	596
Dunn, J. Austin, Chicago, Ill. Syringe	388,029	Aug. 21	1262	343	41	832
Dunn, John J., et al. (See Blake, John L., assignor.)						
Dunn, William, assignor of two-thirds to D. B. Ruffner and G. S. Bolton, Philadelphia, Pa. Nut-lock	382,078	May 1	306	80	43	569
Dunn, William C., New York, N. Y. Game	384,240	June 12	598	162	43	1246
Dunnett, William, assignor of one-half to J. Register & Sons, Baltimore, Md. Flushing-eistern	381,224	Apr. 17	1394	372	43	287
Dunnett, William, assignor of one-half to J. Register & Sons, Baltimore, Md. Attachment for wash-stands, bath-tubs, and sinks	381,225	Apr. 17	1395	373	43	288
Dunning, Edward C., et al. (See Sprague, Henry W., assignor.)						
Dunning, George F., Deep Water, Mo. Washing-machine	376,278	Jan. 10	727	193	42	119
Dunning, Samuel H., Paterson, N. J. Rotary snow-excavator	355,760	July 10	551	143	44	115
Dünninghaus, Gerhard, Unna, Westphalia, assignor, by mesne assignments, to R. Hinrichsen, Hamburg, Germany. Busk for corsets	381,061	Apr. 10	1153	307	43	232
Dunton, Clark B., Portland, Me. Valve for water-gages	383,448	May 29	2341	621	43	994
Dupce, Frank, Helena, N. Y. Running-gear for vehicles	389,798	Sept. 18	1515	400	41	1376
Dupce, George E., Boston, Mass. Device for measuring the thickness of lumber	387,284	Aug. 7	119	32	41	595
Duplain, Jules, Montreal, Quebec, Canada. Stem winding and setting watch	388,186	Aug. 21	1541	410	44	881
Duplessis, Elouild, Lake Weedon, assignor to himself and J. Roche, Quebec, Quebec, Canada. Weighing-scale for railway-cars	382,412	May 8	802	205	43	672
Duplex Manufacturing Company. (See Cadogan, Thomas C., assignor.)						
Duplex Printing Press Company. (See Cox, Joseph L., assignor.)						
Duplex Shoe Trimmer Company. (See Trask, Charles H., assignor.)						
Dupont, Benjamin E., Lexington, Ky. Lubricator for car-axles	389,768	Sept. 11	864	223	41	1245
Dupré, August, and C. N. Hake, Westminster, England. Disinfectant	383,559	May 29	2524		43	1028
Durand, Arthur, assignor to M. A. Ballinger, Washington, D. C. Railway-tie	386,389	July 17	1545	409	41	315
Durand, Claude. (See Moréon and Durand.)						
Durand, Wallace, Newark, N. J. Stay-hinge for trunks, bags, &c.	385,255	June 26	2128	543	43	1558
Durant, George F., St. Louis, Mo., and H. L. Bailey, deceased, (C. A. Bailey administratrix), Brooklyn, N. Y. Telephone-exchange system	394,911	Dec. 18	1816	479	45	1446
Durant, Walter N., Milwaukee, Wis. Package-register	379,106	Mar. 6	361	193	42	1033
Durant, William H., Concord, N. H. Fire-extinguisher	376,289	Jan. 10	728	191	42	149
Durbrow, George W., Los Angeles, Cal. Hydraulic well-boring machine	385,600	July 3	402	103	41	79
Durell, Frank H., Bay City, and W. Goldie, West Bay City, assignors to J. Reid & Co., St. Ignace, Mich. Boom-stick	384,491	Apr. 17	1799	478	43	367
Durfee, Bradford K., et al. (See Friend, Samuel, assignor.)						
Durfee, Bradford K., et al. (See Hartley, Charles J., assignor.)						
Durfee, Walter H. (See Harrington, John, assignor.)						
Durfee, Elisha A., Mitchell, Dak. Ter. Oil-can holder	388,318	Aug. 21	1783	476	41	930
Durgin, Silas A., Sheldon, Dak. Ter. Stem-winding watch	388,648	Aug. 28	2215	595	44	1019
Durham, Nephtali A., Benton, Ill. Coffee-roaster	389,454	Sept. 11	998	257	41	1270
Durieux, Charles, assignor to Southern Automatic Electric Shock Machine Company, New Orleans, La. Coin-operated induction-coil	393,621	Nov. 27	2137	558	45	1036
Durieux, Charles, assignor to Southern Automatic Electric Shock Machine Company, New Orleans, La. Coin-operated induction-coil	393,625	Nov. 27	2139	559	45	1036
Durkee, George B. (See Golding and Durkee.)						
Durkee, George B., assignor to J. W. Taft, Chicago, Ill. Power-feed sawing-machine	383,112	May 22	1854	485	43	897
Durkee, George B., and W. Becker, assignors to Lyon & Healy, Chicago, Ill. Guitar	393,694	Nov. 27	2229	587	45	1056
Durkin, Daniel, Northbridge, assignor to G. Draper & Sons, Hopedale, Mass. Whip-roll for looms	381,617	Apr. 24	1984	521	43	421
Durkin, Michael T., Brooklyn, N. Y. Embossing-machine	382,801	May 15	1385	363	43	794
Durlach, Elias, et al. (See Querol y Delgado, Emilio, assignor.)						
Durnil, Cecil M., assignor to J. B. Duncan, Fayette, Mo. Fastener or holder for paper or other materials	377,824	Feb. 14	742	188	42	650



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Durrin, Harvey. (See Durrin, Reuben, assignor.)						
Durrin, Reuben, assignor to himself and H. Durrin, Clay Centre, Kans. Drawing on marble.	386,062	July 10	1065	.....	44	218
Durrin, Warren A., Hersey, Wis. Log turner and loader	389,743	Sept. 18	1441	377	44	1360
Durriu, Warren A., Hersey, assignor to J. D. Hill, Menomonee, and N. Shaw, Eau Claire, Wis. Chain	393,061	Nov. 20	1300	338	45	861
Duryea, Charles E., Washington, D. C. Game-board	384,195	June 5	524	142	43	1223
Duryea, Charles E., Washington, D. C. Velocipede	387,631	Aug. 14	663	172	44	706
Duryea, Edgar E., and P. H. Grimm, Glen Cove, N. Y. Apparatus for drying starch or other solid matter	375,737	Jan. 3	22	7,8	42	8
Duryea, John. (See Grimm, Paul H., assignor.)						
Dusenbury, C. Coles. (See Doyle, John, assignor.)						
Dushane, James, South Bend, Ind. Educational device	383,389	May 22	2251	509	43	970
Dushane, James, South Bend, Ind. Educational apparatus	385,046	June 26	1816	466	43	1494
Duson, William W. (See Breazeale, David K., assignor.)						
Dustin, Charles E. (See Stirling, Clarence C., assignor.)						
Dustin, James W., Conowingo, assignor to C. C. Caldwell, Liberty Grove, Md. Safety device for elevators	393,425	Nov. 27	1822	481	45	972
Dustin, John E., Lawrence, Mass. Floor for stables	387,632	Aug. 14	665	172	44	707
Dutcher Temple Company. (See Stimpson, Edward S., assignor.)						
Dutcher, William L., Paterson, N. J. Bolt-cutter	382,034	May 1	239	61	43	557
Dutemple, William R., Providence, R. I. Initial finger-ring	383,758	May 15	1321	347	43	782
Dutemple, William R., Providence, R. I. Bead-chain connection	392,318	Nov. 6	201	52	45	632
Dutton, Charles K. (See Marr, William, assignor.)						
Dutton, Chauncey N., Camden, N. J., assignor to Fuel Gas and Electric Engineering Company, (limited,) Pittsburg, Pa. Oscillating meter	394,561	Dec. 18	1238	323 324 325	45	1330
Dutton, Chauncey N., Camden, N. J., assignor to Fuel Gas and Electric Engineering Company, (limited,) Pittsburg, Pa. Fluid-meter	394,562	Dec. 18	1240	325 326 327	45	1330
Dutton, Elmer E., assignor to J. P. Gage, Vineland, N. J. Sun-shade attachment for vehicles	378,829	Feb. 28	2225	591 592	42	953
Dutton, Isaac, Harbor Springs, Mich. Gate	392,319	Nov. 6	203	53	45	632
Dutton, Joseph B., Detroit, Mich. Grain, flour, and feed scale	387,154	July 31	2708	710	44	554
Dutton, Rodney C., Penacook, N. H. Cuff-holder	386,426	July 17	1614	424	44	333
Dutton, William H., Philadelphia, Pa. Upright piano	384,241	June 12	599	162	43	1246
Dutton, William H., Philadelphia, Pa. Upright piano	384,242	June 12	602	163	43	1247
Dutton, William H., Philadelphia, Pa. Upright piano	384,243	June 12	603	163	43	1247
Dutton, William H., Philadelphia, Pa. Upright piano	384,244	June 12	606	163 164	43	1247
Duval, Martin L. E., assignor to Compagnie de Fives-Lille, Paris, France. Metallic bridge	384,196	June 5	525	142 143 144	43	1223
Duval, Martin L. E., assignor to Compagnie de Fives-Lille, Paris, France. Metallic bridge	384,197	June 5	529	144	43	1224
Duvall, Lot E., Livingston, Mont. Ter. Buggy-top	389,957	Sept. 25	1761	467	44	1432
Dvorak, Francis. (See Skrivan and Dvorak.)						
Dwight, George S., deceased, Hamburg, Germany; M. T. Dwight administratrix. Manufacturing gas	387,676	Aug. 14	727	186 187 188	44	719
Dwight, George S., deceased, Hamburg, Germany; M. T. Dwight administratrix. Apparatus for manufacturing water-gas	388,849	Sept. 4	60	16, 17	44	1084
Dwight, Mary T., administratrix. (See Dwight, George S.)						
Dwight Slate Machine Company. (See Johnson, Moses C., assignor.)						
Dwight, William M., et al. (See Dumontier, Alexander C., assignor.)						
Dwyer, Edward. (See Hicks, Frank, assignor.)						
Dwyer, John, Ruston, assignor of one-half to J. W. Holbert, Homer, La. Lining for fire-places	379,057	Mar. 6	286	83	42	1020
Dwyer, John, assignor of one-half to S. J. Richardson, Homer, La. Hair-curler	391,130	Oct. 16	1338	356	45	272
Dwyer, Patrick V., St. Paul, Minn. Water-closet flush-tank valve	394,475	Dec. 11	1093	284	45	1288
Dye, Horace L., Chicago, assignor of one-half to G. Hinchliff, Evanston, Ill. Drier	379,942	Mar. 27	1621	431	42	1299
Dyer, Isaac T., assignor to Dyer Railway Automatic Fire Extinguisher Company, Chicago, Ill. Automatic fire extinguisher and alarm	392,951	Nov. 13	1133	294 295	45	821
Dyer, Louise M., Yazoo City, Miss. Combined slate and ruler	382,413	May 8	803	205	43	672
Dyer, Lucius, Millbridge, Me. Anti-frictional chock or leader	381,831	Apr. 24	2298	598	43	481
Dyer, Philip, Unadilla, Mich., assignor of one-half to W. Abernethy, Mooretown, Ontario, Canada. Farm-gate	385,302	June 26	2207	566	43	1572
Dyer, Philip, Unadilla, Mich., assignor of one-half to W. Abernethy, Mooretown, Ontario, Canada. Farm-gate	393,891	Dec. 4	235	63	45	1117
Dyer Railway Automatic Fire Extinguisher Company. (See Dyer, Isaac T., assignor.)						
Dyer, Richard N., East Orange, N. J. Switch for store-service apparatus	381,495	Apr. 17	1801	479	43	367
Dyer, Richard N., New York, N. Y. Telephone system	382,461	May 8	881	224 225	43	685
Dyer, Samuel. (See Whiteley and Dyer.)						
Dyer, Samuel, and D. F. Graham, assignors to W. N. Whiteley Company, Springfield, Ohio. Mechanical motion	389,879	Sept. 25	1650	437	44	1408
Dyer, Samuel, and D. F. Graham, assignors to W. N. Whiteley Company, Springfield, Ohio. Mechanical motion	389,880	Sept. 25	1651	437 438	44	1409
Dyer, Samuel, and D. F. Graham, assignors to W. N. Whiteley Company, Springfield, Ohio. Mechanical motion	389,881	Sept. 25	1652	438	44	1409
Dygart, Nate S. (See Weston and Dygart.)						
Dykes, James L., Uniontown, Ala. Seed-planter and cultivator	392,148	Oct. 30	2803	761	45	580
Eaches, Ewing, New Iberia, La. Rice-machine	387,867	Aug. 14	1002	261	44	772
Eads, Rowland S. (See Hageman, Noggle, and Eads.)						
Eagan, George L., deceased, (J. C. Pennie, administrator,) assignor of one-half to R. F. Knox, San Francisco, Cal. Hydraulic-cement compound	387,199	July 31	2779	.....	44	566
Eagle Cotton Gin Company. (See Rollins, George L., assignor.)						
Eagle Lock Company. (See Judson, Charles W., assignor.)						
Eagle Lock Company. (See Roche, James, assignor.)						
Eagle Pencil Company. (See Bacon, Levi S., assignor.)						
Eagle Pencil Company. (See Boman, Clares W., assignor.)						
Eagle Pencil Company. (See Cross, Frederick E., assignor.)						
Eagle Pencil Company. (See Hanower, Morris, assignor.)						
Eagle Pencil Company. (See McIntyre, Frank, assignor.)						
Eagle Pencil Company. (See Sandell, Gustaf, assignor.)						
Eagle Pencil Company. (See Sandell, Gustaf R., assignor.)						
Eagle Pencil Company. (See Tyrrell, Edward, assignor.)						
Eagle Tube Company. (See Ritchie, Matthew L., assignor.)						
Eames, Henry H., Baltimore, Md. Device for refining metallic ores	391,034	Oct. 16	1207	321	45	248



## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Eames, Henry H., Columbia, Va., assignor to J. J. Kelly, Baltimore, Md. Ore-pulverizer.	379,943	Mar. 27	1622	432	42	1300
Eames, Henry H., assignor to J. J. Kelly, Baltimore, Md. Apparatus for chloridizing ores.	391,360	Oct. 16	1653	437	45	332
Eames Vacuum Brake Company. (See Massey, Albert P., assignor.)						
Eareckson, Henry B., New York, N. Y. Gas-check for waste-pipes.	390,761	Oct. 9	785	209	45	162
Earl, John H., Chicago, Ill. Printing-machine.	384,432	June 12	884	230	43	1297
Earl, John H., Chicago, Ill. Cabinet for roll wrapping-paper.	392,502	Nov. 6	477	120	45	685
Earle, Horatio S., Chicopee Falls, Mass. Pie-fork.	392,261	Nov. 6	124	32	45	618
Earle, J. Walter. (See Argent, Edward H., assignor.)						
Earley, Edward, Scandia, Kans. Machine for spooling wire.	389,555	Sept. 18	1145	301	44	1304
Earnest, George H., assignor of one-half to Rogers Fence Company, Springfield, Ohio. Hay-tedder.	383,872	June 5	32	10, 11	43	1127
Earnest, George H., and A. Hirschman, Springfield, Ohio. Combined tobacco and cigar cutter.	393,363	Nov. 27	1736	459	45	956
Earnest, Jacob T., assignor of three-fourths to J. H. Stephens, C. R. Bisbee, and R. S. Marvin, Jacksonville, Fla. Car heating and ventilating apparatus.	382,956	May 15	1591	415	43	836
Earnshaw, John R., Manchester, county of Lancaster, England. Cord-holder for Venetian blinds, &c.	387,499	Aug. 7	443	116	44	660
Easley, Frederick C., and M. Bradley, Springfield, Mass.; said Easley assignor to said Bradley. Weaving-needle.	382,641	May 8	1157	298	43	741
Easley, John L., New York, N. Y. Lemon-juice extractor.	385,851	July 10	777	206	44	158
Easley, S. La Payette. (See Houston, George W., assignor.)						
East, Elias, Armour, Tex. Cultivator.	381,002	Apr. 10	1063	282	43	215
East, George W., Heltonville, Ind. Harvester-guard renovator.	388,543	Aug. 28	2063	555	44	990
Eastern Electrical Manufacturing Company. (See Gould, Claude C., assignor.)						
Eastin, John A., assignor of one-half to J. R. Williams, St. Louis, Mo. Paper-cutter.	394,476	Dec. 11	1094	284	45	1289
Eastin, John A., assignor of two-thirds to R. E. Williams and F. Holtzclaw, St. Louis, Mo. Roll-paper cutter.	394,104	Dec. 4	538	144	45	1173
Eastlack, James E., Philadelphia, Pa. Music-holder.	391,521	Oct. 23	1878	504	45	386
Eastman, Appleton B., et al. (See Marshall, Moses J. S., assignor.)						
Eastman Dry Plate and Film Company. (See Brownell, Frank A., assignor.)						
Eastman Dry Plate and Film Company. (See Eastman, George, assignor.)						
Eastman Freight Car Heater Company. (See Eastman, William E., assignor.)						
Eastman, George, Rochester, N. Y. Camera.	388,950	Sept. 4	63	17	44	1085
Eastman, George, assignor to Eastman Dry Plate and Film Company, Rochester, N. Y. Photographic-plate holder.	388,271	Aug. 21	1669	446	44	909
Eastman, John A., assignor of one-half to C. E. Hill, Bangor, Me. Rim-joint and spoke-socket for vehicle-wheels.	381,121	Apr. 17	1263	338	43	262
Eastman, Rufus M. (See Dolloff and Eastman.)						
Eastman, Rufus M. (See Simmons and Eastman.)						
Eastman, William E., Boston, Mass., assignor to Eastman Freight Car Heater Company, Portland, Me. Float and level-indicator for liquid-reservoirs.	381,541	Apr. 24	1878	496	43	400
Eastman, William E., Boston, Mass., assignor to Eastman Freight Car Heater Company, Portland, Me. Automatic feed-regulator for liquid fuel.	387,055	July 31	2548	670	44	527
Eastman, William E., Boston, Mass., assignor to Eastman Freight Car Heater Company, Portland, Me. Liquid-fuel-feeding apparatus.	387,056	July 31	2550	670	44	528
Easton, James W., New York, N. Y. Dynamo-electric machine.	383,113	May 22	1858	485	43	897
Easton, James W., New York, N. Y. Automatic tightening device for armatures of dynamo-electric machines.	383,114	May 22	1859	486	43	898
Easton, Lucian F., La Crosse, Wis. Electric temperature-regulator.	377,021	Jan. 31	1884	496	42	390
Easton, Lucian F., La Crosse, Wis. Temperature-regulator.	394,563	Dec. 18	1244	326 } 327 } 328 }	45	1330
Easton, Maxwell, assignor to P. Everitt, London, England. Coin-operated lock.	376,182	Jan. 10	649	173	42	135
Eastwick, Arthur E., assignor of two-thirds to J. T. Liggitt and A. T. Hill, Detroit, Mich. Electric motor.	389,207	Sept. 11	619	158	44	1197
Eastwood, Emanuel, 2d, Providence, R. I. Belt-fastener.	391,695	Oct. 23	2105	570	45	433
Eastwood, Henry, Paterson, N. J. Loom.	377,425	Feb. 7	121	26	42	517
Eaton, Asahel K., assignor of one-third to C. M. Thompson, Brooklyn, N. Y. Porous cup for galvanic batteries.	385,344	July 3	10		44	4
Eaton, Asahel K., assignor of one-third to C. M. Thompson, Brooklyn, N. Y. Galvanic battery.	389,140	Sept. 4	508		44	1167
Eaton & Co., J. C. (See Pierce, Abel A., assignor.)						
Eaton, Edwin D., Springfield, Mass. Saw-tiling device.	384,829	June 19	1482	387	43	1419
Eaton, George H., Boston, Mass. Opera, field, or marine glass.	381,347	Apr. 17	1579	423	43	324
Eaton, George S., and J. C. Birch, Brooklyn, N. Y., assignors to said Eaton. Machine for rubbing type.	380,558	Apr. 3	381	108 } 109 } 110 }	43	78
Eaton, George S., and J. C. Birch, Brooklyn, N. Y., assignors to said Eaton. Machinery for rubbing type.	380,559	Apr. 3	384	109 } 110 }	43	78
Eaton, Harold B. (See Wiley, John, assignor.)						
Eaton, James H., Lawrence, Mass. Car-axle.	379,638	Mar. 20	1141	302	42	1196
Eaton, James M. (See Bowen and Eaton.)						
Eaton, M. Harvey, Philadelphia, Pa. Construction of buildings.	381,767	Apr. 24	2191	573	43	462
Eaton, Oliver N., New York, N. Y. Universal joint.	381,348	Apr. 17	1580	424	43	324
Eaton, W. D., et al. (See Cooke, Ernest W., assignor.)						
Ebbert, William N., et al. (See Bradley, Charles E., assignor.)						
Eberhard, George F., Cleveland, Ohio. Buckle.	382,516	May 8	965	244	43	703
Eberhard, George F., Cleveland, Ohio. Buckle.	382,594	May 8	1094	281	43	729
Eberhardt, Charles L., London, England. Receptacle for fabrics.	390,012	Sept. 25	1838	487	44	1446
Eberhardt, Theophilus C., Cuero, assignor to H. Elsas, Dallas, Tex. Paper holder and cutter.	392,668	Nov. 13	725	184	45	739
Eberhart, Everett G., Mishawaka, Ind. Presser-foot-operating device for sewing-machines.	390,071	Sept. 25	1930	509	44	1465
Ebert, S. T., Brooklyn, N. Y. Elastic band for pocket-hooks, &c.	377,373	Feb. 7	8	3	42	496
Elken, John G., Pittsburg, Pa. Running-gear for vehicles.	388,959	Sept. 4	226	60	44	1415
Ely, Christie, Rhineland, Wis. Car-coupling.	382,759	May 15	1322	348	43	782
Eaubert, Frederic, Brooklyn, N. Y. Die for making watch-cases or other articles.	382,747	May 8	965	244	43	703
Eccles, William M., St. Louis, Mo. Street-car road.	377,930	Feb. 14	889	229	42	680
Eccles, William M., St. Louis, Mo. Vehicle-spring.	387,677	Aug. 14	732	188	44	720
Eccles, William M., St. Louis, Mo. Vehicle-spring.	388,769	Aug. 28	2295	646 } 647 }	44	1052
Echols, Christopher C., Granger, Tex. Shearing and punching machine.	385,662	July 3	490	127	44	95
Ecker, Enos C., and J. H. Shader, Stryker, Ohio. Reclining-chair.	390,353	Oct. 2	219	58	45	46
Eckermann, Fred, assignor to P. A. Wagner, Paterson, N. J. Loom for weaving loom-harness.	383,215	May 22	1994	223	43	925
Eckerson, David I., Worcester, N. Y. Letter-box.	390,072	Sept. 25	1931	509	44	1465
Eckerson, David I., assignor of one-half to G. B. Wright, Worcester, N. Y. Printing-machine.	387,500	Aug. 7	444	116 } 117 } 118 }	44	660

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Eckler, Noah H., <i>et al.</i> (See McKinney, Robert, assignor.)						
Eckstein, Fred., Jr., Cincinnati, Ohio. Drive-chain	391,591	Oct. 23	1972	532	45	406
Eckstine, Jacob C., Chewsville, Md. Straw-stacker	377,243	Jan. 31	2202	580 581	42	452
Eclipse Cigar Machine Company. (See Browning and Logan, assignors.)						
Eclipse Cigar Machine Company. (See Kitzmiller, Edward A., assignor.)						
Eclipse Wind Engine Company. (See Havens, William R., assignor.) (Reissue.)						
Economic Motor Company. (See Hopkins, George M., assignor.)						
Eddison Fire Extinguisher Company. (See Banning, Joseph O., assignor.)						
Eddleman, Thomas J., assignor of one-half to J. W. Burkart, Fort Worth, Tex. Car coupling	391,952	Oct. 30	2492	675	45	520
Eddlemon, John R. (See Walker, William B., assignor.)						
Eddy, Arthur H., Hartford, Conn. Electric measuring instrument	391,592	Oct. 23	1974	532	45	406
Eddy, Arthur H., Hartford, Conn. Automatic commutator for alternating electric currents	391,593	Oct. 23	1975	532 533	45	406
Eddy, Arthur H., Hartford, Conn. Arc-extinguisher for electric switches or cut-outs	391,594	Oct. 23	1976	533	45	407
Eddy, Daniel M., Sedan, Kans. Bridge	389,694	Sept. 18	1370	359	44	1345
Eddy, George W., New London, assignor to H. C. Williams, New Britain, Conn. Signal-bell	381,917	May 1	27	8	43	520
Eddy, James A. (See Howe, George H., assignor.)						
Eddy, James A., Troy, N. Y. Tedder	379,454	Mar. 13	859	232	42	1135
Eddy, John F., <i>et al.</i> (See Roblin, John S., assignor.)						
Eddy Manufacturing Company, E. B. (See Millen and Mousseau, assignors.)						
Eddy, Newton J., Portland, Mich. Repair-clamp for spectacles	386,004	July 10	986	263	44	201
Eddy, Robert H., Chicago, Ill. Carpet-sweeper	375,991	Jan. 3	363	97	42	74
Eddy, Selwyn, <i>et al.</i> (See Roblin, John S., assignor.)						
Ede, William H., Worcester, Mass. Machine for tapping nuts	388,851	Sept. 4	69	18	44	1086
Ede, Samuel. (See Lux and Ede.)						
Eden, David R., Breakfast Creek Road, Brisbane, Queensland. Apparatus for filing teeth	391,304	Oct. 16	15-0	419	45	318
Eden, John H., and G. E. Guthrie, Eskridge, Kans. Folding desk	393,364	Nov. 27	1737	459 460	45	956
Edes, Edwin L. (See Cameron, Horatio, assignor.)						
Edes, J. Alvin, Lawrence, Mass. Shutter-worker	379,380	Mar. 13	749	203	42	1113
Edgar, James A. (See Curtis, Henry A., assignor.)						
Edgar, John, Rochester, Minn. Neck-yoke	376,868	Jan. 24	1673	437	42	341
Edgar, John, Rochester, Minn. Nut-lock	378,779	Feb. 28	2125	561	42	933
Edgerton, Henry, Shirley, Mass. Combined pencil-sharpener and ink-eraser	391,522	Oct. 23	1879	505	45	386
Edge, William C., Newark, N. J. Setting for ornaments	378,043	Feb. 14	1050	274	42	712
Edgecomb, Daniel W. (See Follett, Edward P., assignor.)						
Edgerton, Edward E., and R. Metcalf, Chicago, Ill. Window	381,683	Apr. 24	2076	543	43	440
Edgington, George F. (See Brown and Edgington.)						
Edie, Alexander, Butte City, Mont. Ter. Lemon-squeezer	386,694	July 24	1996	528	44	414
Edighoffer, Martin. (See Paillet, Joseph, assignor.)						
Edington, Isaac B., assignor of one-half to G. Selmsier & Son, Waterloo, N. Y. Umbrella	388,852	Sept. 4	72	19	44	1087
Edison Electric Light Company. (See Edison, Thomas A., assignor.)						
Edison Electric Light Company. (See Johnson, Edward H., assignor.)						
Edison Machine Works. (See Phillips, William A., assignor.)						
Edison Phonograph Company. (See Edison, Thomas A., assignor.)						
Edison Phonograph Company. (See Gilliland, Ezra T., assignor.)						
Edison Phonograph Toy Manufacturing Company. (See Jacques, William W., assignor.)						
Edison, Thomas A., Llewellyn Park, N. J. Magnetic separator	377,518	Feb. 7	261	66	42	544
Edison, Thomas A., Llewellyn Park, N. J. Commutator for dynamo-electric machines	379,944	Mar. 27	1624	432	42	1300
Edison, Thomas A., Llewellyn Park, N. J. Pyromagnetic motor	380,100	Mar. 27	1855	493	42	1344
Edison, Thomas A., Llewellyn Park, N. J. System of electrical distribution	380,101	Mar. 27	1857	493 494	42	1345
Edison, Thomas A., Llewellyn Park, N. J. System of electrical distribution	380,102	Mar. 27	1859	494	42	1345
Edison, Thomas A., Llewellyn Park, N. J. Burnishing attachment for phonographs	382,414	May 8	804	205	43	672
Edison, Thomas A., Llewellyn Park, N. J. System of electrical distribution	382,415	May 8	805	206	43	673
Edison, Thomas A., Llewellyn Park, N. J. Feed and return mechanism for phonographs	382,416	May 8	808	206	43	673
Edison, Thomas A., Llewellyn Park, N. J. Making phonogram-blanks	382,417	May 8	809	206	43	673
Edison, Thomas A., Llewellyn Park, N. J. Phonogram-blank	382,418	May 8	810	207	43	673
Edison, Thomas A., Llewellyn Park, N. J. Duplicating phonograms	382,419	May 8	811	207	43	674
Edison, Thomas A., Llewellyn Park, N. J. Phonogram-blank	382,462	May 8	884	225	43	686
Edison, Thomas A., Llewellyn Park, N. J. System of electrical distribution	385,173	June 26	1993	511	43	1530
Edison, Thomas A., Llewellyn Park, N. J. Phonograph	386,974	July 31	2411	643	44	507
Edison, Thomas A., Llewellyn Park, N. J. Incandescing electric lamp	389,369	Sept. 11	865	223	44	1245
Edison, Thomas A., Llewellyn Park, N. J. Making carbon filaments	390,462	Oct. 2	369	95	45	77
Edison, Thomas A., Llewellyn Park, N. J. Phonograph-recorder	393,466	Nov. 27	1884	491	45	984
Edison, Thomas A., Llewellyn Park, N. J. Recording and reproducing sounds	393,966	Dec. 4	339	92	45	1136
Edison, Thomas A., Llewellyn Park, N. J. Recording and reproducing sounds	393,967	Dec. 4	341	92	45	1137
Edison, Thomas A., Llewellyn Park, N. J. Phonograph-recorder	393,968	Dec. 4	343	93	45	1137
Edison, Thomas A., Menlo Park, N. J. Telephone-transmitter	378,044	Feb. 14	1051	274 275	42	712
Edison, Thomas A., Menlo Park, N. J. System of electric lighting	391,595	Oct. 23	1977	533	45	407
Edison, Thomas A., Menlo Park, N. J. Incandescing electric lamp	391,596	Oct. 23	1979	534	45	407
Edison, Thomas A., Llewellyn Park, N. J., assignor to Edison Phonograph Company, of New Jersey. Making phonogram-blanks	393,462	Nov. 27	1876		45	983
Edison, Thomas A., Llewellyn Park, N. J., assignor to Edison Phonograph Company, of New Jersey. Machine for making phonogram-blanks	393,463	Nov. 27	1877	494	45	983
Edison, Thomas A., Llewellyn Park, N. J., assignor to Edison Phonograph Company, of New Jersey. Machine for making phonogram-blanks	393,464	Nov. 27	1878	494	45	983
Edison, Thomas A., Llewellyn Park, N. J., assignor to Edison Phonograph Company, of New Jersey. Preparing phonograph recording-surfaces	393,465	Nov. 27	1879	494	45	984
Edison, Thomas A., Llewellyn Park, N. J., assignor to Edison Phonograph Company, of New Jersey. Phonograph-recorder	394,105	Dec. 4	539	144	45	1174
Edison, Thomas A., Llewellyn Park, N. J., assignor to Edison Phonograph Company, of New Jersey. Phonograph-reproducer	394,106	Dec. 4	541	145	45	1174
Edison, Thomas A., Llewellyn Park, N. J., and E. T. Gilliland, New York, N. Y. Railway signaling	384,830	June 19	1484	387	43	1419
Edison, Thomas A., Menlo Park, N. J., assignor to Western Union Telegraph Company, of New York. Telegraphy	377,374	Feb. 7	9	3	42	496
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Incandescing electric lamp	379,770	Mar. 20	1333	356	42	1235
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Regulator for dynamo-electric machines	379,771	Mar. 20	1333	356	42	1235

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.	Vol.	Page.
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. System of electrical distribution	379,772	Mar. 20	1335	357	42	1235
Edison, Thomas A., Menlo Park, N. J., assignor to Edison Electric Light Company, New York, N. Y. Circuit-controller for dynamo-electric machines	395,123	Dec. 25	2169	539	45	1517
Edmeston, Gray D., assignor to De Bergue & Co., (limited,) Manchester, county of Lancaster, England. Riveting-machine	392,594	Nov. 13	618	155	45	719
Edmonds, Charles J., Grand Crossing, Ill. Liquid-fuel burner	388,649	Aug. 28	2216	595	44	1019
Edmonds, Charles J., Grand Crossing, Ill. Liquid-fuel burner	388,650	Aug. 28	2219	596	44	1019
Edmonds, Henry, London, England. Distribution and control of electricity for lighting	390,463	Oct. 2	370	95, 96	45	77
Edmonds, Henry, London, England. System of utilizing secondary batteries	390,464	Oct. 2	375	96, 97	45	78
Edmonds, Henry, London, England. Mechanism for changing electric circuits, &c.	393,146	Nov. 20	1412	369	45	882
Edmonds, Henry, London, England. Distribution of electricity by secondary batteries	393,147	Nov. 20	1414	369	45	883
Edmondson, William, Denver, Colo. Closure for bottles	385,852	July 10	779	206	44	158
Edson, Jacob, Boston, Mass. Ship-steering apparatus	377,375	Feb. 7	9	3	42	497
Edson, Jacob, Boston, assignor of one-half to J. S. Rice, Cambridgeport, Mass. Pen cleaner and holder	380,650	Apr. 3	512	143	43	104
Edson, Joseph R. (See Bowles, John, assignor.)						
Edwards, Albert N. (See Phillips and Edwards.)						
Edwards, Charles C., Amarillo, Tex. Ditching-machine	394,682	Dec. 18	1444	376	45	1368
Edwards, Charles S., Forkland, assignor of one-half to J. McGee, Eutaw, Ala. Car-coupling	377,670	Feb. 7	484	125	42	586
Edwards, Cornelius L., Newark, N. Y. Bridle-bit	392,998	Nov. 20	1216	316	45	844
Edwards, Daniel, R. Lewis, and P. Jones, Swansea, England. Coating metal plates with tin or other metals	381,226	Apr. 17	1396	373	43	288
Edwards, George H., Chicago, Ill. Traction-truck	385,449	July 3	173	47	44	35
Edwards, George W., assignor of one-half to J. M. Baldwin, Chatham, N. J. Car-coupling	380,280	Mar. 27	2096	560	42	1393
Edwards, Granville M., Gray, assignor of one-half to W. E. Dennison, Portland, Me. Car-heater	390,953	Oct. 9	1054	278	45	213
Edwards, Henry. (See Murphy, Hugh J., assignor.)						
Edwards, Henry F. (See Mesker and Edwards.)						
Edwards, James F. (See Beisonhart, William E., assignor.)						
Edwards, Joseph A., and E. Walton, assignors of one-third to D. Wormley, Chariton, Iowa. Hay or straw stacker	387,501	Aug. 7	449	118	44	661
Edwards, Joseph A., and E. Walton, assignors of one-third to D. Wormley, Chariton, Iowa. Horse hay-rake	387,502	Aug. 7	452	119	44	661
Edwards, Lewis R., Charlemont, Mass. Scythe-fastener	377,022	Jan. 31	1887	496	42	391
Edwards, Nathaniel, Washington Court-House, Ohio. Attachment for bridles	393,695	Nov. 27	2241	588	45	1057
Edwards, Richard J., Galena, Ill. Car-coupling	381,349	Apr. 17	1582	424	43	325
Edwards, Sydney S., Williamstown, Mass. Loom-shuttle	394,915	Dec. 18	1851	479	45	1447
Edwards, William C., Winsted, Conn. Washing-machine	378,243	Feb. 21	1356	358	42	777
Edwards, William C., Holyoke, Mass. Water-wheel	390,847	Oct. 9	906	240	45	184
Edwards, William C., Holyoke, assignor to O. S. Greenleaf, Springfield, Mass. Paper-slit-machine	392,262	Nov. 6	125	32	45	618
Edwards, William C., and O. R. Sackett, Suspension Bridge, N. Y. Apparatus for extinguishing fires in railway-cars	379,058	Mar. 6	287	84	42	1020
Edwards, William H. (See Moore and Edwards.)						
Edwards, William J., assignor to F. C. Austin, Chicago, Ill. Grading and ditching machine	393,467	Nov. 27	1883	495	45	984
Effandt, Heinrich, Ottensen, Germany. Boot or shoe	376,183	Jan. 10	650	173	42	136
Egan, Charles E., assignor to W. Y. Miles and S. W. Smith, Columbus, Ohio. Solution for voltaic batteries	381,542	Apr. 24	1879	174	43	400
Egan Company. (See Bugbee and Danner, assignors.)						
Egan Company. (See Lesh, Peter, assignor.)						
Ege, Alexander H. (See Richardson, John T., assignor.)						
Ege, Alexander H. (See Richardson and Rapp, assignors.)						
Ege, Alexander H., Mechanicsburg, Pa. Rail-joint support	376,869	Jan. 24	1674	437	42	341
Egen, Carl. (See Heidmann, Höttings, and Egen.)						
Egerton, James O., Springfield, Mass. Steam cooking utensil	382,595	May 8	1095	282	43	729
EGGE, Frederick, assignor to Smith & Eggo Manufacturing Company, Bridgeport, Conn. Button-hole attachment for sewing-machines	376,297	Jan. 10	806	213	42	164
EGGE, Frederick, assignor to Smith & Eggo Manufacturing Company, Bridgeport, Conn. Manufacture of sheet-metal chains	376,737	Jan. 24	1460	385	42	303
EGGE, Frederick, assignor to Smith & Eggo Manufacturing Company, Bridgeport, Conn. Sheet-metal chain	386,390	July 17	1547	410	44	316
EGGE, Frederick, assignor to Smith & Eggo Manufacturing Company, Bridgeport, Conn. Chain-link	392,149	Oct. 30	2805	761	45	581
Eggelston, Charles, St. Louis, Mo. Bracket or support for shelves, desks, and tables	382,296	May 8	625	159	43	639
Eggers, Anton C., New York, N. Y. Stopper for rubber fountains, &c.	385,256	June 26	2129	543	43	1558
Eggers, Anton C., New York, N. Y. Syringe	391,696	Oct. 23	2106	570	45	433
Eggis, Adolphe P., Fribourg, Switzerland. Type-writing machine	380,792	Apr. 10	741	203	43	155
Eggelston, Charles H., Marshall, Mich. Two-wheeled vehicle	379,211	Mar. 13	513	144	42	1069
Egleston, Thomas, New York, N. Y., assignor to Plume & Atwood Manufacturing Company, Waterbury, Conn. Electrical conductor	376,818	Jan. 24	1601	419	42	328
Egner, Frederic, St. Louis, Mo. Obtaining ammonia and bone-black	381,832	Apr. 24	2299	598	43	481
Ehbets, Carl J., assignor to Colt's Patent Fire Arms Manufacturing Company, Hartford, Conn. Revolver	392,503	Nov. 6	478	120	45	685
Ehle, F. G. Oscar, Buffalo, N. Y. Dinner-pail	385,257	June 26	2130	543	43	1558
Ehlers, Fredreth H., Montevideo, Minn. Grain measuring and registering device	386,695	July 24	1997	528	44	414
Ehlers, Fredreth H., Montevideo, Minn. Grain-measure	381,350	Apr. 17	1584	424	43	325
Ehlers, William H. (See Wallace, Thomas J., assignor.)						
Ehlmann, Friedrich W., Covington, Ky. Combination-tool	379,773	Mar. 20	1336	357	42	1236
Ehrenhart, John E. (See Blackburn, Albert B., assignor.)						
Ehrhardt, Theodor. (See Jochem and Ehrhardt.)						
Ehrlich, Leo. (See Tivy and Ehrlich.)						
Ehrlich, Leo, St. Louis, Mo. Coffee-pot	378,296	Feb. 21	1440	375	42	791
Ehrlich, Leo, St. Louis, Mo. Cash register and indicator	388,030	Aug. 21	1263	343	44	832
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter	388,651	Aug. 28	2291	596	44	1020
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter	390,073	Sept. 25	1932	509	44	1466
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter	390,954	Oct. 9	1056	279	45	213

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Des.	Vol.	Page.
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	391,305	Oct. 16	1581	419	45	319
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	392,016	Oct. 30	2587	704	45	538
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	392,416	Nov. 6	354	88	45	661
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	392,790	Nov. 13	916	234	45	777
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	392,857	Nov. 13	1010	258	45	797
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	393,626	Nov. 27	2140	559	45	1036
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	393,627	Nov. 27	2141	559	45	1036
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	393,628	Nov. 27	2142	559	45	1037
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	393,629	Nov. 27	2142	560	45	1037
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	393,630	Nov. 27	2143	560	45	1037
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	393,631	Nov. 27	2144	560	45	1037
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	393,632	Nov. 27	2144	560	45	1037
Ehrlich, Leo, assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter ....	394,003	Dec. 4	481	128	45	1163
Ehrlich, Leo, B. Dubinski, and G. Rein, St. Louis, Mo.; said Dubinski and Rein assignors to said Ehrlich. Telephone .....	378,780	Feb. 28	2126	562	42	933
Ehrlich, Max, and C. Storek, Frankfort-on-the-Main, Prussia, Germany. Printing gold, silver, or platinum decorations on ceramic ware .....	391,036	Oct. 16	1210	.....	45	249
Ehrlich, Max F. L., and C. E. Storek, Frankfort-on-the-Main, Prussia, Germany. Producing a bright printing with gold, silver, or platinum .....	391,035	Oct. 16	1208	.....	45	249
Eichbaum, Henry, Mount Vernon, N. Y., assignor to himself and Crane Elevator Company of Illinois, Chicago, Ill. Elevator-indicator .....	392,354	May 8	719	182	43	655
Eichhorn, Mary C., Brookline, Mass. Broom-clasp .....	392,731	Nov. 13	916	234	45	777
Eichler, Carl H., Dresden, Germany. Machine for elevating and delivering bricks .....	394,842	Dec. 18	1719	446	45	1423
Eickemeyer, Rudolf, Yonkers, N. Y. Dynamo-electric machine .....	377,996	Feb. 14	983	256 257 258	42	700
Eickemeyer, Rudolf, Yonkers, N. Y. Frame for winding armature-coils .....	377,997	Feb. 14	988	258 259	42	700
Eickemeyer, Rudolf, Yonkers, N. Y. Machine for planing the folded edges of hat-brims .....	386,457	July 24	1665	439 440	44	352
Eiden, Joseph, Oconomowoc, Wis. Step-ladder .....	383,449	May 29	2342	632	43	994
Eiermann, John H., St. Louis, Mo. Hand-printing roller-machine .....	388,031	Aug. 21	1267	344	44	832
Einig, John, Jacksonville, Fla. Elevator-alarm .....	384,831	June 19	1485	387	43	1420
Einsfield, John V. (See Lottridge and Einsfield.)						
Eisaman, Amos, Putnam, and G. Rome, Mansfield Valley, Pa. Police-nippers .....	394,162	Dec. 11	623	167	45	1200
Eisenberg, Fredrick W., Ann Arbor, Mich. Tailor's charcoal-iron .....	378,297	Feb. 21	1441	376	42	791
Eisenberg, Fredrick W., Ann Arbor, Mich. Tailor's goose .....	392,595	Nov. 13	630	155	45	720
Eisenhardt, Christopher, Philadelphia, Pa., assignor to H. Disston & Sons, of Pennsylvania. Buck-saw-frame .....	394,477	Dec. 11	1096	284	45	1269
Eisenhardt, Christopher, Philadelphia, Pa., assignor to H. Disston & Sons, Incorporated, of Pennsylvania. Handle for crosscut-saws .....	395,218	Dec. 25	2336	598	45	1545
Eisenhardt, David. (See Bechtold and Eisenhardt.)						
Eisenhart, Charles A., York, Pa. Dental electric apparatus .....	388,482	Aug. 28	1982	532	44	975
Eisenhart, Charles H., York, Pa. Electrical apparatus for dental operations. (Reissue) ..	10,907	Mar. 6	498	139	42	1060
Eitemiller, George M., et al. (See Williams and Lucock, assignors.)						
Ekkert, Everard, Knoxville, Iowa. Device for suspending and spreading slaughtered animals ..	384,433	June 12	885	230	43	1298
Ekkroth, Anders G. A., Ishpening, Mich. Bottle-cleaner .....	393,100	Nov. 20	1349	352	45	870
Ekstrom, Anton, assignor to H. C. and C. C. Hodges, Detroit, Mich. Machine for making metallic lathing .....	385,663	July 3	492	127	44	96
Ekstrom, John P., Englewood, Ill., assignor to Standard Ventilator Manufacturing Company, of Illinois. Stove-pipe ventilator .....	379,774	Mar. 20	1337	357	42	1236
Ekstrom, John P., Englewood, Ill., assignor to Standard Ventilator Manufacturing Company, of Illinois. Wall-ventilator and stove-pipe thimble .....	380,027	Mar. 27	1752	468 469	42	1324
Elam, William E., Port Royal, S. C. Device for stringing and filing papers .....	381,351	Apr. 17	1585	425	43	325
Elastic Nut Company. (See Burdick, Justin H., assignor.)						
Elastic Nut Company. (See Johnson, William H., assignor.)						
Elberling, Oskar, assignor to Frankenthaler Kesselschmiede, Veltbuysen & Co., Frankenthal, Germany. Covering surfaces of metal with lead .....	395,269	Dec. 25	2404	.....	45	1560
Elbert, Vincent L., Minneapolis, Minn. Apparatus for the manufacture of gas .....	386,458	July 24	1669	441	44	353
Elder, James F., Philadelphia, Pa. Stock-car .....	384,832	June 19	1486	387	43	1420
Elder, Joseph, Peoria, Ill. Locomotive draw-bar .....	391,233	Oct. 16	1481	393	45	300
Eldred, Horace H., Boston, Mass., assignor to Western Electric Company, Chicago, Ill. Telephone-exchange .....	382,518	May 8	967	244	43	703
Eldred, Zenas C., assignor to G. T. Smith Middlings Purifier Company, Jackson, Mich. Centrifugal reel .....	387,057	July 31	2552	570 671	44	528
Eldredge, Daniel W. (See O'Hara, Eldredge, and Logan.)						
Eldredge, John V. D., assignor of one-half to L. Du Bois and H. Wunsch, Detroit, Mich. Car-coupling .....	380,874	Apr. 10	857	231 232	43	177
Eldridge, F. Howard. (See Dodson, Wilson P., assignor.)						
Eldridge, Warren H., et al. (See Munz, Theodore C., assignor.)						
Electric Cable Construction and Maintenance Company. (See Brooks, David, Jr., assignor.)						
Electric Car Company. (See Hunter, Rudolph M., assignor.)						
Electric Car Company of America. (See Condict, George H., assignor.)						
Electric Car Company of America. (See Hunter, Rudolph M., assignor.)						
Electric Car Company of America. (See Reckenzaun, Anthony, assignor.)						
Electric Gas Lighting Company. (See Tirrell, Jacob P., assignor.)						
Electric Storage Light and Power Company. (See Tripp, Sylvanus L., assignor.)						
Electrical Accumulator Company. (See Butler, Herbert W., assignor.)						
Electrical Accumulator Company. (See Conant, Thomas P., assignor.)						
Electrical Accumulator Company. (See Conant and Latshaw, assignors.)						
Electrical Accumulator Company. (See Faure, Camille A., assignor.)						
Electrical Accumulator Company. (See Griscom, William W., assignor.)						
Electrical Accumulator Company. (See Madden, Albert F., assignor.)						
Electrical Accumulator Company. (See Price, John B., assignor.)						
Electrical Accumulator Company. (See Sellon, John S., assignor.)						
Electrical Appliance Manufacturing Company. (See White, Le Roy S., assignor.)						
Electrical Supply Company. (See Wallace, John B., assignor.)						
Electro-Automatic Transit Company of Baltimore City. (See Weems, David G., assignor.)						
Electro-Dynamic Company of Philadelphia. (See Griscom, William W., assignor.)						
Eley, Hiram J., et al. (See Neff, Elijah, assignor.)						
Eley, Philip, Bayonne, N. J. Cap-threading machine .....	389,208	Sept. 11	621	159	44	1197
Elger, William D. (See Randall, Charles A., assignor.)						
Ellacott, Joseph P. (See Olcott and Ellacott.)						
Elleau, Henry, San Francisco, Cal. Spring-clasp .....	393,222	Nov. 20	1525	400	45	906

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.	Vol.	Page.
Ellery, Robert L., and J. Veazie; said Veazie assignor to F. E. Fuller, Taunton, Mass. Button-making machine	390,118	Sept. 25	2007	535	44	1481
Ellinger, Julian O., New York, N. Y. Manufacture of secondary-battery plates	388,960	Sept. 4	227	60	44	1116
Ellington, David H., Cuthbert, Ga. Cotton-planter	394,163	Dec. 11	624	167	45	1200
Ellington, Edward B., Westminster, England. Elevator	383,715	May 29	2742	722	43	1075
Elliott, Henry, St. Louis, Mo. Railway-frog	379,151	Mar. 6	418	118	42	1045
Elliott, William G. (See Grassler, William F., assignor.)						
Elliott, William H., Brooklyn, N. Y. Magazine fire-arm	377,549	Feb. 7	301	77	42	552
Elliott, A. Judson, Mason City, Iowa. Car-coupling	392,596	Nov. 13	621	155	45	720
Elliott, Charles H. and G. W., Rockford, Iowa. Sheaf-carrier	379,212	Mar. 13	513	144	42	1069
Elliott, Charles W., Moncton, New Brunswick, Canada. Paper box	380,748	Apr. 10	665	184	43	142
Elliott, Charles W., Boston, Mass. Shade-pull	381,543	Apr. 24	1-79	496	43	400
Elliott Ephraim, Chelmsford, Mass. Wheeled pulverizer	388,349	Aug. 21	1784	476	44	931
Elliott, Francis E., Miles, Wash. Ter. Cartridge-extractor	393,223	Nov. 20	1526	400	45	906
Elliott, George S., Mobile, Ala. Vehicle-hub	377,295	Jan. 31	2281	603	42	467
Elliott, George W. (See Elliott, Charles H. and G. W.)						
Elliott, Gilbert R., Boston, Mass., assignor to Continental Cash Car Company, Baltimore, Md. Store-service apparatus	378,499	Feb. 28	1739	458	42	859
Elliott, Isaac N., and P. A. Reid, Richmond, Ind. Fence-machine	376,184	Jan. 10	651	477	42	136
Elliott, Isaac N., and P. A. Reid, Richmond, Ind. Mechanical movement	379,775	Mar. 20	1338	357	42	1236
Elliott, John A., assignor of one-half to J. B. Martin, Neosho Rapids, Kans. Cultivator and plow	388,853	Sept. 4	72	19	44	1087
Elliott, John R., assignor of one-half to W. I. A. Bodine, Clinton, Mo. Washing-machine	381,003	Apr. 10	1064	282	43	215
Elliott, John S., Bombay, N. Y. Milk-gage	379,692	Mar. 20	1223	325	42	1213
Elliott, Robert, Jr. (See Bemis, Albert T., assignor.)						
Elliott, Robert C., assignor of one-half to W. K. Elliott and J. H. Harper, Prairie Creek, Ind. Door-fastener	381,567	June 12	1088	285	43	1336
Elliott, Robert H., Birmingham, Ala. Cattle-guard for railway-tracks	387,218	Aug. 7	31	7	44	578
Elliott, Robert M., assignor of one-half to L. Bagger, Washington, D. C. Electrode for secondary batteries	389,455	Sept. 11	999	267	44	1270
Elliott, Sterling, Newton, Mass. Tricycle	379,270	Mar. 13	585	161	42	1082
Elliott, William E., assignor of three-fourths to J. R. Lane, Chicago, Ill. Anti-friction journal-bearing	391,234	Oct. 16	1482	394	45	301
Elliott, William K., et al. (See Elliott, Robert C., assignor.)						
Elliott, William P., Chicago, Ill. Gate	390,074	Sept. 25	1933	510	44	1466
Elliott, William S., London, England. Knife for mowers, reapers, &c.	394,349	Dec. 11	920	242	45	1257
Ellis, Adelbert E., Lawrence, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heeling-machine	388,544	Aug. 28	2064	555	44	990
Ellis, Adelbert L., Poncho Springs, assignor of one-half to H. W. Forman, Denver, Colo. Egg-carrier	385,450	July 3	175	47	44	35
Ellis, Adelbert L., Poncho Springs, assignor of one-half to H. W. Forman, Denver, Colo. Knockdown box or package	385,451	July 3	178	47	44	36
Ellis, Albert C. (See Harvey, George H., assignor.)						
Ellis, Albert M. (See Reidy, Philip A., assignor.)						
Ellis, Charles O., and E. W. Wilkinson, Birmingham, England. Ejector mechanism for breech-loading fire-arms	391,843	Dec. 18	1720	446	45	1423
Ellis, Charles O., and E. W. Wilkinson, Birmingham, England. Ejector mechanism for breech-loading fire-arms	391,844	Dec. 18	1722	447	45	1424
Ellis, Charles S., assignor of one-half to J. J. Sturla, Memphis, Tenn. Numbering-machine	381,227	Apr. 17	1399	375	43	288
Ellis, Charles S., and J. J. Sturla, Memphis, Tenn. Cigar-lighter	393,192	Nov. 6	24	6	45	599
Ellis, David T., Bridgeport, Conn. Self-acting air-valve	379,889	Mar. 20	1542	406	42	1274
Ellis, David T., assignor of one-half to Belknap Manufacturing Company, Bridgeport, Conn. Spray-nozzle	386,870	July 31	2293	603	44	477
Ellis, Edgar E., assignor of one-half to A. L. Lehmker, Rochester, N. Y. Photographic film	385,707	July 10	692		44	143
Ellis, Edmund S., Lake, Ill. Switch for overhanging tracks	386,871	July 31	2294	603	44	477
Ellis, Edmund S., Lake, Ill. Switch for overhanging tracks	386,872	July 31	2296	603	44	478
Ellis, Frank H., et al. (See Harris, Braden L., assignor.)						
Ellis, George W., Lynn, assignor to P. Green, Stoneham, Mass. Sole for boots or shoes	377,244	Jan. 31	2204	581	42	453
Ellis, Jacob B., Marshfield, Mo. Sawing-machine	393,502	Nov. 27	1944	509	45	996
Ellis, James E., assignor of one-half to L. M. Doctor, Red Oak, Iowa. Cigar-tuck cutter	376,030	Jan. 3	426	113	42	86
Ellis, James H. (See Ellis, John T. and J. H.)						
Ellis, James M., New Haven, Conn. Button	380,678	Apr. 10	567	156	43	123
Ellis, Jesse B., Great Bend, Kans. Arch bridge	391,463	Oct. 23	1800	482	45	369
Ellis, John S. (See Dunn, Daniel F., assignor.)						
Ellis, John T. and J. H., Toronto, Ontario, Canada. Furnace for steam-boilers	385,509	July 3	265	68	44	54
Ellis, William, Peckham, county of Surrey, assignor to Patent Lath, Splint, and Match Syndicate, (limited,) London, England. Machine for rendering laths and cutting veneers	390,289	Oct. 2	124	35, 36	45	28
Ellis, William H. G., Louisville, Ky. Combined umbrella and cane	376,870	Jan. 24	1676	437	42	342
Ellison, Charles A., Mineola, N. Y. Two-wheeled heater	391,235	Oct. 16	1485	394	45	301
Ellison John M., Allegheny City, Pa. Natural-gas heater for fire-places	386,391	July 17	1548	410	44	316
Ellithorpe, Albert C., Chicago, Ill. Safety device for elevators	376,374	Jan. 10	912	239	42	183
Ellithorpe, Albert C., Chicago, Ill. Valve-controlling device for elevator mechanism	391,597	Oct. 23	1980	534	45	407
Ellithorpe, Albert C., Chicago, Ill. Elevator	391,598	Oct. 23	1981	534	45	408
Ellis, Josiah W., assignor to G. Westinghouse, Jr., Pittsburg, Pa. Means for carrying off escaping gas from gas-mains	378,544	Feb. 28	1797	475	42	871
Ellwood, Everett C., Green's Farms, Conn. Hand-cultivator	384,351	June 12	771	201	43	1275
Elmhald, Hjalmar, Chicago, Ill. Belt-fastener	381,434	June 12	886	230	43	1298
Elmendorf, Albert, assignor of one-half to S. A. Gardner and C. Prentis, New London, Conn. Water-closet	385,409	July 3	107	30	44	23
Elmendorf, Albert, and C. F. Washburn, assignors of one-third to S. A. Gardner and C. Prentis, New London, Conn. Musical buzz	392,504	Nov. 6	481	121	45	686
Elmer, William H., Berlin, Wis. Hub	387,557	Aug. 7	549	142	44	678
Elksesser, Emil, assignor to Dahl & Co., Barmen, Germany. Blue coloring-matter obtained from paraphenylen-diamine, &c.	392,723	Nov. 13	807		45	756
Elsas, Herman. (See Eberhardt, Theophilus C., assignor.)						
Elser, Peter C. (See Jones and Elser.)						
Elteich, Otto P., Newark, N. J. Combined cigar-tip cutter and match-box	377,550	Feb. 7	303	77	42	553
Elward, John H., assignor of one-half to J. F. Mitchell and J. A. Partridge, Whitewater, Wis. Car-beater	383,115	May 22	1860	486	43	898



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Elwell, Austin D., Philadelphia, Pa. Combined wash-stand and water-closet .....	376,871	Jan. 24	1677	438	42	342
Elwell, Austin D., Philadelphia, Pa. Wash-stand and commode or earth-closet .....	391,599	Oct. 23	1982	534	45	408
Elwell, Edward C., Sandusky, Ohio. Combined pulverizer and weeder .....	379,308	Mar. 13	649	176	42	1094
Elwell, Howard P., Washington, D. C., assignor to Hotchkiss Ordnance Company, (Limited,) of England. Composite transom for ammunition-boxes .....	386,696	July 24	1999	528	44	415
Ely, Edward O., <i>et al.</i> (See Vinton, John H., assignor.)						
Ely, George A. (See Smith, Ely, and Bryan.)						
Ely, Seth, Trenton, N. J. Bill-file .....	376,185	Jan. 10	654	175	42	136
Elz, Peter, <i>et al.</i> (See Gross, Hermann C., assignor.)						
Embley, William. (See Shobe and Embley.)						
Emerrick, David, Toledo, Ohio. Display-model .....	395,124	Dec. 25	2170	560	45	1518
Emerson, Charles H., and W. H. Wetmore, Burlington, Vt.; said Wetmore assignor to said Emerson. Toboggan .....	380,875	Apr. 10	860	232	43	177
Emerson, George A., administrator. (See Abel, William H.)						
Emerson, George H., Bucksport, Me. Nose-guard for eyeglasses .....	388,545	Aug. 28	2065	556	44	990
Emerson, Harrison D. (See Smith, Ezra B., assignor.)						
Emerson, James, Springfield, Mass. Steam-heating apparatus for railway-cars .....	382,596	May 8	1096	282	43	729
Emerson, James, Willimansett, Mass. Steam-heating pipe-connection for cars .....	382,597	May 8	1098	282	43	729
Emerson, James, Willimansett, Mass. Heating system for railway-cars .....	383,637	May 29	2623	694	43	1051
Emerson, James E. (See Midgley, Thomas, assignor.)						
Emerson, James E., and T. Midgley, Beaver Falls, Pa. Belting .....	386,303	July 17	1435	379	44	294
Emerson, James E., and T. Midgley, Beaver Falls, Pa. Hose or tubing .....	386,304	July 17	1436	379	44	294
Emerson, James E., and T. Midgley, Beaver Falls, Pa. Manufacture of belting .....	386,305	July 17	1437	380	44	294
Emerson, James E., and T. Midgley, Beaver Falls, Pa. Manufacture of hose or tubing .....	386,306	July 17	1439	380	44	294
Emerson, James E., and T. Midgley, Beaver Falls, Pa. Metallic hose .....	386,307	July 17	1440	380	44	294
Emerson, John W. (See Youmans, Walter, assignor.)						
Emerson, Leander C., North Grafton, Mass. Button-setting machine .....	394,564	Dec. 18	1248	327	45	1331
Emerson, Richard, assignor of one-half to H. H. Mason, Sycamore, Ill. Grain-binder .....	377,744	Feb. 14	591	152	42	621
Emerson, Richard, assignor of one-half to Racine Malleable and Wrought Iron Company, Racine, Wis. Water-motor .....	392,017	Oct. 30	2587	704	45	538
Emerson, Rufus H., Jackson, Mich. Apparatus for recovering soda .....	377,551	Feb. 7	304	77	42	553
Emerson, Talcott & Company. (See Jones, James H., assignor.)						
Emerson, Victor H., New York, N. Y., assignor of one-half to H. F. Seip, Easton, Pa. Electrical measuring-instrument .....	392,018	Oct. 30	2590	705	45	539
Emerson, William W., Astoria, Ill. Forming-tool .....	388,652	Aug. 28	2222	596	44	1020
Emery, Charles E., Brooklyn, N. Y. Clamp-barrel for clock-springs .....	391,885	Oct. 30	2393	649	45	500
Emery, Charles E., Brooklyn, N. Y. Rewinding-clock .....	391,886	Oct. 30	2394	649	45	501
Emery, Charles G. (See Shortt, Edward G., assignor.)						
Emery, George D. (See Emery, Jonathan, assignor.)						
Emery, Jonathan, St. Louis, Mo., assignor of one-half to G. D. Emery, Leroy, Kans. Button-machine .....	383,802	May 29	2893	763	43	1102
Emery, Paul, Owego, N. Y. Running-gear for vehicles .....	376,079	Jan. 10	495	134	42	107
Emery, Thomas W., Minneapolis, Minn. Flexible grain-pipe .....	384,352	June 12	713	201	43	1275
Emig, Edward K., York, Pa. Hub-attaching device .....	390,463	Oct. 2	380	97	45	78
Emley, S. F. (See Randall and Smith, assignors.)						
Emmert, William M., Baltimore, Md. Can-soldering machine .....	382,463	May 8	885	226	43	686
Emmens, Stephen H., London, county of Middlesex, England. Explosive derived from phenol .....	376,145	Jan. 10	598		42	126
Emmer, Julius, Jr., Washington, D. C. Telephone-transmitter .....	385,664	July 3	493	127	44	96
Emmner, Julius, Jr., assignor of one-half to J. A. Settle, Washington, D. C. Dynamo-electric machine .....	390,955	Oct. 9	1056	279	45	214
Emmens, Thomas A., Lawrence, Mass. Machine for making loom-harness .....	383,716	May 29	2743	723	43	1076
Empire Drill Company. (See Sheldon, Richard B., assignor.)						
Empire Hydrocarbon Company. (See Seery, James F., assignor.)						
Empire Manufacturing Company. (See Sweet, Orange M., assignor.)						
Engel, George W., Ashland, Pa. Cork-extractor .....	386,005	July 10	998	263	44	201
Engel, Gottfried, assignor to H. F. Engel, Brooklyn, N. Y. Vacuum-pan .....	386,579	July 24	1842	487	44	384
Engel, Henry F. (See Engel, Gottfried, assignor.)						
Engel, Jacob, New Bedford, Ohio. Hatchway .....	392,546	Nov. 6	1541	137	45	698
Engel, Julius, New York, N. Y. Necktie-retainer .....	393,101	Nov. 20	1350	352	45	871
Engel, Louis P., <i>et al.</i> (See Lisk, Joseph P., assignor.)						
Engelberg, Evaristo C., Piracicaba, Brazil. Rice-hulling machine .....	383,285	May 22	2105	556	43	944
Engelman, Harry H., and J. H. Kiser, Defiance, Ohio. Holder for brooms, &c. ....	394,064	Dec. 4	483	129	45	1164
Engels, Eduard, Renscheid, and B. Wesselsmann, Hamburg, Prussia, Germany. Screw-stock .....	378,830	Feb. 28	2225	502	42	953
Enger, George, Milwaukee, Wis. Pocket-book .....	392,019	Oct. 30	2592	705	45	539
England, David, Cedar Hill, Tex. Gate .....	388,653	Aug. 28	2223	596	44	1020
England, Edward, Duluth, Minn. Device for sharpening stone-cutting tools .....	393,300	Nov. 20	1637	432	45	928
England, James, White Lake, Mich. Vehicle-spring .....	378,244	Feb. 21	1358	358	42	777
England, James, New York, N. Y. Buckle .....	378,667	Feb. 28	1978	524	42	906
Englebright, William F., Nevada City, Cal. Water-wheel .....	391,523	Oct. 23	1880	505	45	386
Engley, Wetherell & Co. (See Barney, Frank P., assignor.)						
English, Analdo M., Boston, Mass., assignor to Pratt Manufacturing Company, Portland, Me. Button-setting machine .....	390,214	Oct. 2	28	8,9	45	9
English, Andrew J., <i>et al.</i> (See Simlbers, Joseph, assignor.)						
English, Andrew J., Cincinnati, Ohio. Gas-burner .....	382,695	May 15	1244	325	43	766
English, Andrew J., assignor of one-half to P. Crosley, Cincinnati, Ohio. Regenerative gas-burner .....	395,125	Dec. 25	2172	560	45	1518
English, Eli, assignor of one-half to P. Liberty, Hoosick Falls, N. Y. Harvester-wheel .....	391,740	Oct. 23	2171	586	45	446
English, James G., New Haven, Conn. Die for making felly-plates for carriage-wheels .....	392,110	Oct. 30	2744	746	45	569
English, James G., assignor to English & Mersick, New Haven, Conn. Carriage-curtain-cord holder .....	382,957	May 15	1593	416	43	837
English & Mersick. (See English, James G., assignor.)						
Englund, Nils, and O. Ohlson, Chicago, Ill. Perforating-stamp .....	379,271	Mar. 13	588	162	42	1082
Engman, Edward J., Concession, La. Levee and ditching machine .....	379,864	Mar. 20	1507	396	42	1268
Engström, Axel H., Philadelphia, Pa., assignor to S. G. Flagg & Co. Automatic air-valve .....	376,799	Jan. 24	1569	412	42	323
Ennes, Homer L., Sandusky, Ohio. Mop-wringer .....	385,601	July 3	404	103	44	79
Ennis, Andrew, <i>et al.</i> (See Kennedy, John F., assignor.)						
Ennis, David R. (See Halls, Thomas E., assignor.)						
Eno, Joseph A., Newark, N. J. Steam-boiler .....	385,510	July 3	267	68	44	54

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Eno, Joseph A., assignor to Eno Steam Generator Company, Newark, N. J. Steam-generator	384,898	June 19	1581	411	43	1438
Eno, Joseph A., assignor to Eno Steam Generator Company, Newark, N. J. Steam-generator	389,503	Sept. 11	1059	{ 281 282 }	44	1281
Eno Steam Generator Company. (See Eno, Joseph A., assignor.)						
Enos, John A., Boston, assignor to himself, W. C. Otis, Nahant, E. H. Ingalls, P. West, Brookline, and W. E. Plummer, Newton, Mass. Electric surface railway	379,509	Mar. 13	944	{ 254 255 }	42	1151
Enos, John A., Boston, assignor to W. C. Otis, Nahant, E. H. Ingalls, P. West, Brookline, and W. E. Plummer, Newton, Mass. Storage-battery	386,580	July 24	1845	488	44	384
Enos, John A., Boston, assignor to W. C. Otis, Nahant, E. H. Ingalls, P. West, Brookline, and W. E. Plummer, Newton, Mass. Current-receiver for electric-railway cars	386,581	July 24	1846	488	44	385
Enos, Levi S., Andover, N. Y. Door	378,359	Feb. 21	1526	399	42	809
Enos, Matthew W., Carlinville, Ill. Soil-pulverizing machine	392,320	Nov. 6	204	53	45	633
Ensign, Frank H., Toledo, Ohio. Hub-casting apparatus	376,146	Jan. 10	599	{ 159 160 }	42	126
Ensinger, Nicholas, Fremont, Ohio. Fence-post	390,215	Oct. 2	35	9, 10	45	9
Entekin, William G., Philadelphia, Pa. Cutting-press	386,459	July 24	1670	441	44	353
Entwisle, Edward B., Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Die for making railway-chairs	381,875	Apr. 24	2369	616	43	495
Enzenauer, Peter, Red Bud, Ill. Straw-carrier for thrashing machines	392,321	Nov. 6	205	53, 54	45	633
Enzinger, Lorenz A., Worms, Hesse, Germany. Bottling and cask-filling apparatus	388,272	Aug. 24	1671	447	44	909
Enzinger, Lorenz A., Worms, Hesse, Germany. Filter-press	393,623	Nov. 27	2145	561	45	1038
Epp, Cornelius C., Bradshaw, Neb. Motor	394,256	Dec. 11	776	{ 205 206 }	45	1228
Epplé, Louise, Chicago, Ill. Galvanic abdominal truss	390,354	Oct. 2	220	58	45	47
Eppler, Andrew, Jr., Boston, Mass. Machine for channeling and feather-edging boot or shoe soles	387,058	July 31	2554	671	44	529
Eppler, Andrew, Jr., Boston, Mass. Sole-edge-molding machine	387,059	July 31	2556	672	44	529
Epstein, Ludwig, Martinikenfelde, near Berlin, Germany. Secondary battery	386,459	May 8	812	207	43	674
Epstein, Ludwig, Martinikenfelde, near Berlin, Germany. Secondary battery	383,216	May 22	1998	{ 523 524 }	43	925
Erard, Gilbert. (See Ducharme and Erard.)						
Erb, Fred, Jr., assignor to J. O. Perrin, Lafayette, Ind. Flying target	383,348	May 22	2186	578	43	960
Erbe, Barthel, Pittsburg, Pa. Wire-gripper	380,749	Apr. 10	666	184	43	142
Erbe, Barthel, Pittsburg, Pa. Wire-stretcher	380,750	Apr. 10	667	185	43	142
Erhard, George P., El Mora, N. J. Boiler	390,466	Oct. 2	381	97, 98	45	79
Erickson, Peter R., Ishpeming, Mich. Ratbet-drill	390,013	Sept. 25	1840	{ 487 488 }	44	1446
Erierson, Charles J., assignor to W. G. Van Horno, Salt Lake City, Utah Ter. Punch	388,392	July 17	1549	410	44	316
Erierson, John, Sabine Pass, La. Floating oil-distributor for vessels	380,479	Apr. 3	252	69	43	52
Erierson, John, Sabine Pass, La. Oil-distributor for ships, &c	392,792	Nov. 13	917	235	45	777
Eric Car Heating Company. (See Botsford, Frederick G., assignor.)						
Eric City Iron Works. (See Scheffler, Frederick A. and T., assignors.)						
Erkman, Jacob, Enfield, Ill. Flood-gate	394,683	Dec. 18	1447	377	45	1369
Erlanger, Charles, Baltimore, Md. Overalls	386,240	July 17	1350	356	44	277
Ernst, George D., Buffalo, N. Y. Reversing-gear for printing-press cylinders	381,991	May 1	153	39	43	543
Erpelding, Lambert, Leonardville, Kans., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Mower	378,390	Feb. 21	1565	{ 409 410 }	42	816
Erschell, Ernst, New York, N. Y. Picture-frame	387,779	Aug. 14	875	225	44	747
Erskine, John. (See Miller, Erskine, and Wright.)						
Ertel, George, Quincy, Ill. Hay-press	378,197	Feb. 21	1275	{ 337 338 }	42	762
Ertel, George, Quincy, Ill. Baling-press	386,063	July 10	1066	285	44	218
Ertel, John C. (See Ayars, William H. H., assignor.)						
Ertel, John C. (See Meyer and Sutphen, assignors.)						
Erwin, Charles M., Birmingham, Ala., assignor of one-half to J. M. Watt and M. Whipple, Washington, D. C. Safety-lange for railway-rails	384,435	June 12	886	241	43	1298
Erwin, James B., Milwaukee, Wis. Air-compressor	382,760	May 15	1324	348	43	782
Erwin, James B., Milwaukee, Wis. Motor	384,612	June 19	1154	{ 305 306 }	43	1356
Erwin, James B., Milwaukee, Wis. Pneumatic water-elevator	387,711	Aug. 14	784	202	44	729
Erwood, John, assignor of two-fifths to J. G. Beckerleg, Chicago, Ill. Steam-exhaust-pipe valve	388,654	Aug. 28	2224	597	44	1020
Eschellmann, Georg. (See Muspratt and Eschellmann.)						
Eschner, Louis, Philadelphia, Pa. Implement for turning tubular fabrics	382,958	May 15	1594	416	43	837
Eschner, Louis, Philadelphia, Pa. Neckscarf	385,922	July 10	882	233	44	181
Escobar, Juan de la Cruz, Matanzas, Cuba, assignor to F. G. Tilton, Newark, N. J. Type-writing machine	382,146	May 1	395	103	43	586
Escovar, Fernando, Mexico, Mexico. Alterative tonic	380,876	Apr. 10	862		43	177
Eshleman, Eli, Cherokee, Iowa. Chair	388,350	Aug. 21	1786	477	44	931
Esselbach, Joseph, Dresden, Saxony, Germany. Wire fastener for boxes	381,684	Apr. 24	2078	543	43	440
Esselburn, John. (See Martz and Esselburn.)						
Esser, Hermann, Hoboken, N. J. Ink-supplying device	384,899	June 19	1582	412	43	1438
Essex, Henry, Meadville, Pa. Machine for making wire nails	384,515	June 12	1014	264	43	1321
Essick, Samuel V., Brooklyn, N. Y. Printing-telegraph	383,450	May 29	2343	{ 622 623 }	43	994
Essig, Benton, assignor of one-half to S. Essig, Disko, Ind. Harrow	381,467	Apr. 17	1758	470	43	358
Essig, John, et al. (See Wilson, David Y., assignor.)						
Essig, Selton. (See Essig, Benton, assignor.)						
Essington Button-Hole Finishing Machine Company. (See Essington, Harry M., assignor.)						
Essington, Harry M., Camden, N. J., assignor to Essington Button-Hole Finishing Machine Company. Tension-releasing device for sewing-machines	377,890	Feb. 14	892	213	42	668
Essington, Harry M., Camden, N. J., assignor to Essington Button-Hole Finishing Machine Company. Clamp-centering device for sewing-machines	377,891	Feb. 11	833	213	42	668
Essington, Harry M., Camden, N. J., assignor to Essington Button-Hole Finishing Machine Company. Button-hole-barring machine	377,931	Feb. 14	892	230	42	681
Essington, Harry M., Camden, N. J., assignor to Essington Button-Hole Finishing Machine Company. Clamp-centering device for button-hole sewing-machines	377,932	Feb. 14	896	230	42	682
Essington, Harry M., Camden, N. J., assignor to Essington Button-Hole Finishing Machine Company. Clamp-centering device for button-hole sewing-machines	377,933	Feb. 14	897	231	42	682
Essler, John F. (See Davis, Essler, and De Long.)						
Esson, John. (See Esson, Joseph and J.)						
Esson, Joseph and J., Parkdale, Ontario, Canada. Fire-escape	392,999	Nov. 20	1217	316	45	844
Estabrook, Alanson C., Northampton, assignor to Florence Manufacturing Company, Florence, Mass. Machine for boring brush-heads	390,956	Oct. 9	1058	{ 279 280 }	45	214

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. <sup>g</sup>	Vol.	Page.
Estabrook, Alanson C., Northampton, assignor to Florence Manufacturing Company, Florence, Mass. Die for molding composition handles.....	394,107	Dec. 4	541	145	45	1174
Estabrook, Arthur F. (See Knight, Reneselaer A., assignor.)						
Estabrook, Harry F., assignor to S. B. Estabrook, Worcester, Mass. Bird-food holder.....	392,255	May 1	558	141	43	616
Estabrook, Sarah B. (See Estabrook, Harry F., assignor.)						
Estabrook, Willard W., Boston, Mass. Automatic circuit maker and breaker.....	389,799	Sept. 18	1516	{ 400 401 }	44	1376
Estep, Simeon R., Lady Lake, Fla. Cultivator-foot.....	377,998	Feb. 14	993	259	42	700
Esterly, George, Whitewater, Wis. Harvester-reel.....	384,139	June 5	438	122	43	1205
Esterly, George, Whitewater, Wis. Grain-binder.....	384,140	June 5	440	122	43	1206
Esterly, George, Whitewater, Wis. Harvester.....	385,047	June 26	1817	{ 466 467 }	43	1494
Esterly Harvesting Machine Company. (See Agenten, Joseph, assignor.)						
Estes, Charles D., assignor of one-half to E. Bierer, Hiawatha, Kans. Hand-loom.....	394,916	Dec. 18	1852	479	45	1447
Estes, James W., East Atchison, Mo. Potato-planter.....	384,353	June 12	774	{ 201 202 }	43	1275
Estey, David M. (See Clapp, Dwight C., assignor.)						
Estey Organ Company. (See Fuller, Levi K., assignor.)						
Estey, W. Shepard. (See Oliver, Ebenezer, assignor.)						
Esty, William, Laconia, N. H. Yarn-guiding mechanism for straight-knitting machines.....	386,117	July 17	1155	{ 307 308 }	44	240
Esty, William, Laconia, N. H. Knitting stockings.....	386,118	July 17	1157	308	44	241
Esworthy, Alonzo C., Camden, N. J. Burnisher and seat-wheel.....	388,351	Aug. 21	1787	477	44	931
Etheridge, John A., and H. H. Flaspoepler, assignors to Etheridge Manufacturing Company, Louisville, Ky. Folding bed.....	392,913	Nov. 13	1079	280	45	811
Etheridge Manufacturing Company. (See Etheridge and Flaspoepler, assignors.)						
Ethridge, Carroll L., et al. (See King, William J., assignor.)						
Ethridge, Frank N., assignor of one-half to J. M. Taylor, Lynn, Mass. Heel-trimming machine.....	376,433	Jan. 17	1004	{ 263 264 }	42	208
Ethridge, Frank N., Lynn, Mass., assignor to Acme Heel Trimmer Company, Nashua, N. H. Heel-trimming machine.....	391,306	Oct. 16	1581	420	45	319
Ethridge, Martin R., Lynn, Mass. Lasting-machine.....	392,193	Nov. 6	26	7	45	599
Ethridge, Martin V. B., Boston, Mass. Machine for marking mail matter.....	378,391	Feb. 21	1567	{ 410 411 }	42	817
Ethridge, Martin V. B., Boston, assignor of one-half to H. E. Waite, West Newton, Mass. Water-current-power transmitter.....	382,959	May 15	1595	416	43	837
Ethridge, Martin V. B., Boston, Mass., assignor of two-thirds to J. Swann, New York, N. Y., and H. E. Waite, West Newton, Mass. Time-piece dial.....	393,000	Nov. 20	1218	317	45	844
Ethridge, Martin V. B., Boston, Mass., assignor of two-thirds to J. Swann, New York, N. Y., and H. E. Waite, West Newton, Mass. Time-piece dial.....	394,845	Dec. 18	1724	{ 447 448 }	45	1424
Ette, Charles G., St. Louis, Mo. Stop box and cock.....	390,196	Mar. 27	1984	531	42	1370
Ette, Charles G., St. Louis, Mo. Hydrant.....	382,642	May 8	1158	298	43	741
Ette, Charles G., St. Louis, Mo. Hydrant.....	382,960	May 15	1596	417	43	837
Ette, Charles G., St. Louis, Mo. Non-freezing street-washer.....	385,602	July 3	405	103	44	79
Ette, Charles G., St. Louis, Mo. Hydrant.....	394,478	Dec. 11	1097	284	45	1229
Ettling, Alice M. (See Cately, Shepard W., assignor.)						
Eubank, Reuben B., Jr., Maryville, Mo. Fence.....	377,672	Feb. 7	485	125	42	587
Eunson, Charles W., Emerald Grove, Wis. Vehicle-pole tip.....	391,407	Oct. 23	1723	459	45	353
Eunson, Robert G., New York, N. Y. Return-bend.....	378,878	Mar. 6	32	8, 9	42	972
Euphrat, Frederic, San Francisco, Cal. Railway-rail.....	385,701	July 10	552	144	44	115
Eureka Foundry Company. (See Vance, John D., assignor.)						
Eureka Mower Company. (See Markham, Dewitt C., assignor.)						
Eurich, Conrad, Pittsburg, assignor of one-half to J. Eurich, Allegheny County, Pa. Pressure-regulator.....	389,065	Sept. 4	377	98	44	1144
Eurich, John. (See Eurich, Conrad, assignor.)						
Evans, Arthur K., Toronto, Ontario, Canada. Rope-grip or selvage-strop.....	383,803	May 29	2895	764	43	1103
Evans, Charles J. and J. P. Lawler, Iowa. Heating-drum.....	390,119	Sept. 23	2008	536	44	1481
Evans, Clark W., Plainfield, N. J. Metal band for boxes.....	393,001	Nov. 20	1220	317	45	845
Evans, David, Ansonia, Conn. Machine for tinning copper sheets.....	383,116	May 22	1863	486	43	898
Evans, David, and A. W. Adams, Pittsburg, Pa. Portable-bottom coke-oven.....	386,427	July 17	1615	424	44	333
Evans, David, and A. Harrison, Barrow-in-Furness, county of Lancaster, England. Apparatus for transferring metal from one set of rolls to another.....	391,361	Oct. 16	1655	{ 437 438 }	45	332
Evans, David E. (See Gorman, John, assignor.)						
Evans, David Z., Philadelphia, Pa. Gas-burner.....	394,645	Dec. 18	1381	361	45	1355
Evans, E. S. (See Dawley, John M., assignor.)						
Evans, Edmund J. (See Hicks, Daniel B., assignor.)						
Evans, Edward F., Wamego, Kans. Corn-shocker.....	387,155	July 31	2710	710	41	554
Evans, Edwin T., Buffalo, N. Y. Apparatus for lettering soap.....	386,740	July 24	2061	543	44	426
Evans, G. Frank, Portland, Me. Case-hardening and cementation compound.....	376,186	Jan. 10	655		42	136
Evans, G. Frank, Somerville, Mass. Mechanism for evening rovings, &c.....	389,695	Sept. 18	1371	359	44	1345
Evans, G. Frank, Somerville, Mass. Speed-regulating device.....	390,216	Oct. 2	36	10	45	10
Evans, G. Frank, Somerville, Mass. Frictional gearing.....	392,111	Oct. 30	2745	746	45	569
Evans, George, New York, N. Y. Dental tool.....	390,576	Oct. 2	532	139	45	107
Evans, Hampton W., Philadelphia, Pa. Combined center, T, and try square, bevel, and clinometer.....	380,714	Apr. 10	614	169	43	131
Evans, Hampton W., Philadelphia, Pa. Bevel and square.....	389,370	Sept. 11	867	223	44	1246
Evans, James E., Cincinnati, Ohio. Velocipede.....	385,258	June 26	2131	544	43	1558
Evans, James W., Etna, Pa. Machine for scarf-rolling.....	389,504	Sept. 11	1061	282	44	1281
Evans, Jesse P. (See Evans, Charles J. and J. P.)						
Evans, John H., et al. (See Evans, William, assignor.)						
Evans, John H., Philadelphia, Pa. Clothes-drier.....	390,120	Sept. 25	2009	536	44	1482
Evans, John W., Cleveland, Ohio. Perculator.....	381,062	Apr. 10	1154	308	43	232
Evans, Joseph, Pocahontas, Va. Wheel-tire.....	391,037	Oct. 16	1211	321	45	249
Evans, Joseph W., Newburyport, Mass. Draw-gear for street-cars.....	377,825	Feb. 14	743	188	42	650
Evans, Joseph W., Newburyport, Mass. Street-car.....	381,918	May 1	28	8	43	520
Evans, Lewis, Belswains, Hemel-Hempstead, county of Heris, England. Seat convertible into a table.....	377,356	Jan. 31	2376	686	42	482
Evans, Lucius S., Alvarado, Tex. Combined revolving harrow and cultivator.....	383,286	May 22	2106	556	43	944
Evans, Othniel B., assignor of one-half to G. W. Nock, Philadelphia, Pa. Trap for sinks, &c.....	391,600	Oct. 23	1983	535	45	408
Evans, Quimby N., Brooklyn, N. Y. Device for operating elevator hand-ropes.....	379,381	Mar. 13	750	203	42	1114
Evans, Quimby N., and W. Schwanhauser, Brooklyn, N. Y. Elevator-controlling device.....	378,045	Feb. 14	1052	275	42	712
Evans, Robert, et al. (See Evans, William, assignor.)						
Evans, Thomas, New York, N. Y. Malt-mashing machine.....	384,568	June 12	1089	{ 285 286 }	43	1336

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Cr.	Vol.	Page.
Evans, Thomas S., and F. R. Jackes, Milwaukee, Wis. Stove-pipe elbow.....	394,479	Dec. 11	1098	285	45	1289
Evans, Warren C. (See Smith and Evans.)						
Evans, Warren C., Exeter, N. H., assignor to Rockingham Machine Company, of New Hampshire. Heel-burnishing machine.....	385,702	July 10	553	144	44	115
Evans, William, assignor of two-thirds to R. and J. H. Evans, Philadelphia, Pa. Drift-pin for drilling-machines.....	391,038	Oct. 16	1212	321	45	249
Evans, William, Jr., Philadelphia, Pa. Measuring-vessel.....	385,303	June 26	2207	566	43	1572
Evans, William A., and J. H. Ross, assignors to Ross Patent Lighting Company, (limited,) Dublin, Ireland. Reservoir-lamp.....	387,951	Aug. 11	1148	309	44	801
Evans, William H., Baltimore, Md. Vertical-shaft bearing.....	377,148	Jan. 31	2063	542	42	425
Everts, Albert U., et al. (See Reed, Thomas L., assignor.)						
Everts, Charles A., assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Lamp-wick adjuster.....	387,156	July 31	2711	711	41	555
Everts, Charles A., assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Central-draft lamp.....	389,371	Sept. 11	868	224	44	1246
Everts, Charles A., assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Wick-adjuster.....	392,547	Nov. 6	542	137	45	698
Everett Spring Company. (See Currey, Edward C., assignor.)						
Evenson, George A., and F. Vocum, Finchford, Iowa. Stock-waterer.....	376,031	Jan. 3	427	113	42	86
Everdell Alfred E. (See Ewhank and Everdell.)						
Everett, Charles D. (See Johns, Baker, and Everett.)						
Everett, Charles J., Tenafly, N. J. Adjustable frame for laundry-tubs.....	378,580	Feb. 28	1853	489	42	882
Everett, Charles J., Tenafly, N. J. Constructing street-curbings of artificial stone.....	382,602	May 15	1386	364	43	794
Everett, John H. D., St. Ignace, Mich. Flame-fastener.....	377,671	Feb. 7	484	125	42	586
Everett, Sylvester T., et al. (See Johns, Baker, and Everett, assignors.)						
Everett, Willard S., Hyde Park, Mass. Harness-saddle tree.....	380,624	Apr. 3	476	134	43	97
Everingham, Edward B., assignor to Variety Machine Company, Warsaw, N. Y. Sugar-evaporator.....	388,546	Aug. 28	2065	556	44	991
Everitt, Percival. (See Easton, Maxwell, assignor.)						
Everitt, Percival, London, England. Apparatus for automatically closing receptacles for coins, &c.....	382,696	May 15	1245	325	43	767
Everitt, Percival, London, England. Coin-operated electrical apparatus.....	386,919	July 31	2366	621 622	44	421
Everitt, Percival, London, and T. Cooper, Great Ryburgh, England; said Cooper assignor to said Everitt. Steam-tilling-machine.....	389,141	Sept. 4	509	130 131	44	1167
Everitt, Robert, Brooklyn, N. Y. Fluid-pressure governor.....	379,382	Mar. 13	751	204	42	1114
Everitt, William E., Birmingham, county of Warwick, England. Machinery for making tubes.....	390,957	Oct. 9	1665	281	45	215
Eversole, Theodore W., Martinsburg, W. Va. Self-heating soldering-iron.....	388,187	Aug. 21	1542	410	44	881
Everson, George R., assignor of one-half to W. L. Rockenfield, Cincinnati, Ohio. Sheet-metal folder.....	383,390	May 22	2252	599	43	970
Everson, George R., assignor of one-half to W. L. Rockenfield, Cincinnati, Ohio. Sheet-metal-bending machine.....	383,391	May 22	2254	599	43	971
Everson, Gilbert F., et al. (See Lisk, Joseph P., assignor.)						
Exard, Alfred, Paris, France, assignor to Compagnie Anonyme des Forges de Chatillon et Commeny. Hardening and tempering armor-plates, &c.....	387,712	Aug. 14	786	202 203	44	729
Ewald, Edward. (See Julig and Ewald.)						
Ewald, Leo. (See Fischer and Ewald.)						
Ewart Manufacturing Company. (See Dodge, James M., assignor.)						
Ewart Manufacturing Company. (See Ewart, William D., assignor.)						
Ewart, William D., assignor to Ewart Manufacturing Company, Chicago, Ill. Drive-chain.....	377,552	Feb. 7	305	78	42	553
Ewart, William D., assignor to Ewart Manufacturing Company, Chicago, Ill. Sprocket-wheel.....	382,079	May 1	306	80	43	569
Ewhank, James S., and A. E. Everdell, New York, N. Y. Accelerating-cartridge.....	385,603	July 3	407	103	44	80
Ewen, John M., Evanston, Ill. Duplicating architectural and similar drawings.....	390,577	Oct. 2	533	140	45	107
Ewing, Gilbert A., Jackson, Ohio. Railway-rail.....	388,188	Aug. 21	1543	410	44	882
Ewing, James M. (See Braumigan, Felix, assignor.)						
Ewing, Samuel H., San Francisco, Cal. Machine for stuffing horse-collars.....	393,822	Dec. 4	124	34	45	1096
Ewing, William T., Chicago, Ill. Injector.....	376,187	Jan. 10	656	175	42	136
Ewing, William T., Chicago, Ill. Injector.....	376,188	Jan. 10	657	176	42	137
Excelsior Iron Fence Company. (See Davy, John W., assignor.)						
Excelsior Manufacturing Company. (See O'Keefe, John, assignor.)						
Excelsior Metallic Packing Company. (See Finch, Frank, assignor.)						
Excelsior Needle Company. (See Dayton, William H., assignor.)						
Excelsior Wringer Company. (See Burnham, Arthur M., assignor.)						
Exley, Robert, Philadelphia, Pa. Electrical stop-motion for steam-engines.....	378,668	Feb. 28	1979	525	42	906
Expanded Metal Company. (See Golding, John F., assignor.)						
Expanded Metal Company. (See Golding and Durker, assignors.)						
Exam, Andrew G., et al. (See Sutton, Columbus P., assignor.)						
Eymer, George H., Red Oak, Iowa. Cooking utensil.....	377,712	Feb. 7	543	138	42	597
Eynon & Ingersoll. (See Eynon, Thomas, assignor.)						
Eynon, Joseph, Mansfield Valley, Pa. Housing for rolling-mills.....	379,510	Mar. 13	946	255	42	1151
Eynon, Thomas, assignor to Eynon & Ingersoll, Cleveland, Ohio. Cutting-tool for milling and gear-cutting machines.....	392,597	Nov. 13	621	156	45	720
Eynon, William, and J. T. Davis, assignors to Diamond State Iron Company, Wilmington, Del. Machine for finishing bent and creased horseshoe-blanks.....	379,945	Mar. 27	1625	432 433	42	1300
Eysaman, Adam H., Dayton, Nev. Amalgamator.....	387,347	Aug. 7	220	58	44	614
Eysenbach, Henry P., Delphos, Ohio. Elastic folding display envelope.....	381,919	May 1	29	9	43	520
Faas, Martin. (See Berger and Faas.)						
Faas, Rudolph, assignor to Standard Car Axle Lubricator Company, Chicago, Ill. Car-axle lubricator.....	389,372	Sept. 11	869	224	41	1246
Faas, Rudolph, assignor to Standard Car Axle Lubricator Company, Chicago, Ill. Car-axle lubricator.....	389,373	Sept. 11	870	224	41	1246
Faber, Eberhard. (See Mussiman, Oscar, Jr., assignor.)						
Faber, Eberhard. (See Osborn, Frederick G., assignor.)						
Faber, William A., Danbury, Conn. Adjustable handle.....	384,028	June 5	277	77	43	1174
Faber, William M., Jr. (See McCleane and Faber.)						
Facer, John. (See Hampton and Facer.)						
Facile Bottle Stopple Company. (See Fullerton, George A., assignor.)						
Fackenthal, Hart J., and L. Wallace, Philadelphia, Pa. Railway-rail pad.....	382,803	May 15	1387	364	43	795
Faddis, Robert P., Socorro, N. Mex. Ter. Railway.....	390,014	Sept. 25	1841	484	44	1447
Faddis, Robert P., Socorro, N. Mex. Ter. Railway.....	391,131	Oct. 16	1339	357	45	272
Fagan, James H., Chicago, Ill. Quick-motion valve.....	392,417	Nov. 6	355	88	45	661

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'g.	Vol.	Page.
Fahlberg, Constantin, assignor to Fahlberg, List & Co., Selbke-Westerhüsen, Prussia, Germany. Apparatus for obtaining phosphorous trichloride.	381,685	Apr. 21	2078	543	43	440
Fahlberg, List & Co. (See Fahlberg, Constantin, assignor.)						
Fahnestock, Fredrick S., Cohoes, N. Y. Potted-plant support.	385,174	June 25	1997	511	43	1531
Fairbairn, William U., Hyde Park, Mass. Steam-boiler setting.	380,197	Mar. 27	1986	532	42	1371
Fairbairn, William U., Hyde Park, Mass. Automatic cut-off or regulator for gang-boilers.	394,257	Dec. 11	777	206	45	1228
Fairbanks & Company, E. & T. (See Abbott, Arthur V., assignor.)						
Fairbanks & Company, E. & T. (See Paddock, Hamlin, assignor.)						
Fairbanks, Crawford M., Lincoln, R. I. Machine for cutting files.	380,751	Apr. 10	658	185	43	142
Fairbanks, Henry, St. Johnsbury, Vt. Indicator for weighing apparatus.	387,283	Aug. 7	130	32	41	525
Fairbanks, Horatio W., et al. (See Atkinson, Andrew J., assignor.)						
Fairbanks, Thaddeus, assignor to Feed Water Heater Company, St. Johnsbury, Vt. Feed-water heater.						
Fairbanks, Webster A., Charles City, Iowa. Plow.	381,618	Apr. 24	1986	521	43	422
Fairbrother, Abiather T., Janesville, Iowa. Stanchion.	377,296	Jan. 31	2282	603	42	467
Fairchild, Alson F., Mechanicsville, Iowa. Horse hay-rake.	389,209	Sept. 11	623	159	41	1197
Fairchild, Le Roy W., New York, N. Y. Corkscrew.	385,604	July 3	408	104	44	80
Fairchild, Hadley P., West Medford, assignor to J. W. Brooks, trustee, Cambridge, Mass. Rotary cutter.	388,125	Aug. 21	1443	37	41	864
Fairfield, Hadley P., West Medford, and C. H. Benjamin, Boston, assignors to J. W. Brooks, trustee, Cambridge, Mass. Rotary cutter.	388,548	Aug. 28	2067	553	44	991
Fairfield, John M., assignor to American Writing Machine Company, Hartford, Conn. Type-rest for type-writing machines.	388,547	Aug. 28	2066	556	44	991
Fairman, Simon, assignor to B. G. Harris, Baltimore, Md. Car-coupling.	389,556	Sept. 18	1146	301	44	1391
Fairman, Simon, assignor to B. G. Harris, Baltimore, Md. Car-brake.	381,352	Apr. 17	1586	425	43	325
Falcon, Joseph G., Chicago, Ill. Dredging machine.	381,353	Apr. 17	1587	425	43	326
Fales, Orange B., Canfield, Ohio. Hopper.	392,858	Nov. 13	1010	259	45	797
Falze, Lucien, Fils. (See Bapst and Falze.)	382,869	May 15	1439	375	43	812
Falk, Arnold, et al. (See Hammerstein, Oscar, assignor.)						
Falk, Gustav, et al. (See Hammerstein, Oscar, assignor.)						
Falk, Herman W., Milwaukee, Wis. Wagon-brake.	394,846	Dec. 12	1736	418	45	1425
Falkenberg, Charles and J., and M. Jones, New York, N. Y. Shirt.	393,548	Nov. 27	2022	529	45	1013
Falkenberg, Jacob. (See Falkenberg and Jones.)						
Falkenberg, Jacob, New York, N. Y. Shirt.	377,149	Jan. 31	2064	542	42	426
Fallgatter, John A. (See Ward and Fallgatter.)						
Fallis, George T., St. Joseph, Mo. Walking toy.	376,588	Jan. 17	1218	321	42	249
Fallon, Diego, Bogota, Cundinamarca, United States of Colombia. Musical notation.	381,887	Oct. 30	2398	650	45	501
Fallon, John F., St. Louis, Mo. Gear-iron for carriages.	393,549	Nov. 27	2022	529	45	1014
Fallows, James, Philadelphia, Pa. Axle for toy cars, carriages, &c.	395,210	Dec. 25	2337	598	45	1546
Falls, Alonzo, assignor of one-half to A. G. Cumnock, Lowell, Mass. Mechanism for stripping the top-flats of carding-machines.	382,598	May 8	1100	223	43	729
Falls, Hugh A. (See Faris and Falls.)						
Falls Rivet Company. (See Keller, John A., assignor.)						
Farbenfabriken, vormals Fr. Bayer & Company. (See Herzberg, Martin, assignor.)						
Farbenfabriken, vormals Fr. Bayer & Co. (See Duisberg, Carl, assignor.)						
Farbenfabriken, vormals Friedr. Bayer & Co. (See Bauman, Eugen A., assignor.)						
Farberwerke, vormals Meister, Lucius & Brüning. (See Ullrich, Eduard, assignor.)						
Fargue, Robert H., Brooklyn, N. Y. Truss.	383,717	May 29	2748	724	43	1076
Farina, Antoninus, assignor, by mesne assignments, to P. Farina, New York, N. Y. Shoe-heel.	381,686	Apr. 24	2079	543	43	411
Farina, Antoninus, assignor, by mesne assignments, to P. Farina, New York, N. Y. Apparatus for making boot or shoe heels.	393,892	Dec. 4	236	61	45	1117
Farina, Petrina. (See Farina, Antoninus, assignor.)						
Faris, Moses P., and H. A. Falls, Bethany, S. C. Manure-distributor.	375,807	Jan. 3	111	33	42	27
Farley, Alvin, Pittsburg, Pa. Device for constructing arches or centers for furnaces.	376,520	Jan. 17	1151	276	42	231
Farley, Charles H., Addison, Vt. Reversible plow.	388,655	Aug. 28	2227	597	44	1020
Farley, Henry W., Urbana, Ill. Wire rope or cable.	388,656	Aug. 28	2236	597	44	1021
Farley, James, administrator. (See Kennedy, Thomas.)						
Farlow, James N., Lander, Wyo. Ter. Strap-edging machine.	384,029	June 5	278	78	43	1174
Farlow, James N., Lander, Wyo. Ter. Hame.	384,030	June 5	279	78	43	1174
Farmer, James A., South New Market, N. H. Spinning spindle and support therefor.	377,426	Feb. 7	132	26	42	518
Farmer, James S., Salford, county of Lancaster, England. Electric contact-maker.	394,164	Dec. 11	626	167	45	1201
Farmer, John, Glasgow, county of Larnark, Scotland. Machine for straightening, grinding, and polishing metal bars.	387,971	Aug. 11	1172	318	41	806
Farmer, Julius M., assignor of part to C. F. Fogg, New York, and H. C. Strout, Brooklyn, N. Y. Rotary engine.	394,624	Dec. 18	1448	377	45	1369
Farmer, Moses G., Elliot, Me. Telephonic transmitter.	378,298	Feb. 21	1442	376	42	792
Farmer, Moses G., Elliot, Me. Telephone-transmitter.	380,426	Apr. 3	173	48	43	36
Farmer, Moses G., Elliot, Me. Telephone-transmitter.	380,427	Apr. 3	175	48	43	36
Farmer, Moses G., Elliot, Me. Apparatus for forming sheets of nickel or other metal by electrolysis.	381,004	Apr. 10	1065	283	43	215
Farmer, Theodore P., assignor to Lamson Cash Railway Company, Boston, Mass. Store-service apparatus.	378,545	Feb. 28	1799	475	42	871
Farner, Conrad. (See Linder and Farner.)						
Farner, Conrad, and G. Linder, Milwaukee, Wis. Knotter for grain-binders.	384,245	June 12	610	161	43	1247
Farnham, Isaiah H., Malden, assignor to New England Telephone and Telegraph Company, Boston, Mass. Test-circuit and apparatus for electrical cables.	379,532	Mar. 13	972	262	42	1157
Farnham, Isaiah H., Malden, assignor to New England Telephone and Telegraph Company, Boston, Mass. Telephone-transmitter.	380,752	Apr. 10	668	185	43	142
Farnham, Isaiah H., Malden, assignor to New England Telephone and Telegraph Company, Boston, Mass. Electrical circuit and apparatus guard.	392,724	Nov. 13	808	206	45	757
Farnham, Isaiah H., Malden, assignor to New England Telephone and Telegraph Company, Boston, Mass. Electric switch-board.	394,964	Dec. 25	1923	497	45	1470
Farnham, Moses P., Germantown, Cal. Combined harvester and thrasher.	378,581	Feb. 28	1854	490	42	882
Farnsworth, George. (See Schmid, Charles, assignor.)						
Farnsworth, Thomas, San Antonio, Tex. Gas-compressing pump for ice-machines.	395,041	Dec. 25	2038	525	45	1192
Farnum, William C., Arlington, Vt. Machine for making spiral steel springs.	392,598	Nov. 13	622	156	45	720
Farquharson, William, Montreal, Quebec, Canada. Instrument for measuring the distance and height of objects. (Reissie.)	10,908	Mar. 13	1004	269	42	1163
Farr, Eugene A., Galesburg, Ill. Thill-coupling.	387,060	July 31	2357	672	41	529
Farr, Hiram G. (See Hewett, Ernest M., assignor.)						
Farr, William A., East Carmel, Ohio. Tension device for use in making fences.	382,464	May 8	887	226	43	687



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Farra, Lorenzo D., assignor of one-half to H. F. McCann, Philadelphia, Pa. Heat-regulator for furnaces.....	376,644	Jan. 17	1324	348	42	267
Farra, Lorenzo D., assignor of one-half to H. F. McCann, Philadelphia, Pa. Heat-regulator for stoves or furnaces.....	387,713	Aug. 14	789	203	41	730
Farrand, George A., Rockport, assignor of one-half to J. B. Collinberry, Cleveland, Ohio. Potato-sprinkler.....	390,657	Oct. 9	638	170 171	45	135
Farrar, Cyrus S., assignor of one-half to F. B. Wiggins, East Saginaw, Mich. Machine for sharpening saws, &c.....	381,613	June 19	1157	306	43	1356
Farrar, Frederick, Brooklyn, N. Y. Appliance for cleaning pipe-coils.....	382,147	May 1	396	103 104	43	586
Farrar, J. Hamilton, Chicago, Ill. Railway-signal.....	380,316	Apr. 3	11	3	43	5
Farrar, William B., Greensborough, N. C. Machine for regulating time-pieces.....	379,511	Mar. 13	946	255 256	42	1152
Farrell, Emma L., Brooklyn, N. Y. Frying pan or similar utensil.....	391,524	Oct. 23	1881	505	45	386
Farrell, George W., Au Sable Forks, N. Y. Vehicle-spring.....	389,923	Sept. 25	1722	455	41	1423
Farrell, John R., Boston, Mass. Collar-fastening.....	390,848	Oct. 9	910	240	45	185
Farrell, Thomas F., Paterson, N. J. Steam rock-drill.....	390,578	Oct. 2	531	140	45	108
Farrell, William H., South Bethlehem, Pa. Lubricator.....	385,605	July 3	410	105	41	80
Farron Bros. Company. (See Homan, Robert W., assignor.)						
Farrington, Thomas B., New York, N. Y. Measuring utensil.....	382,870	May 15	1470	386	43	812
Farris, Lemuel J. (See Bachlott and Farris.)						
Farrow, Stephen F., Rago, Kans. Force-pump.....	394,065	Dec. 4	483	129	45	1164
Farrow, Willard M., Holyoke, Mass. Cartridge capping and decapping implement.....	387,868	Aug. 14	1003	261	41	772
Farwell, Fay D., Dubuque, Iowa, assignor to G. C. Bentz. Hammock or camp-chair.....	392,112	Oct. 30	2747	746	45	569
Farwell, Frederic E., Fitchburg, Mass. Gage for saw-benches.....	378,924	Mar. 6	89	26	42	984
Farwell, Frederic E., Fitchburg, Mass. Bench for circular saws.....	380,560	Apr. 3	387	110	43	79
Farwell, Frederic E., Fitchburg, Mass. Vise.....	386,697	July 21	2000	529	44	415
Farwell, Frederic E., Fitchburg, Mass. Circular sawing machine.....	386,802	July 31	2172	533	44	456
Farwell, Frederick R., and F. P. Rhines, Watertown, N. Y. Barley-flakes.....	390,849	Oct. 9	911		45	185
Farwell, Frederick R., and F. P. Rhines, Watertown, N. Y. Making barley-flakes.....	390,850	Oct. 9	912	240	45	185
Fasnacht, Jacob, assignor of one-half to B. M. Tobias, Ludell, Kans. Vehicle-brake.....	395,126	Dec. 25	2173	560	45	1518
Fasoldt, Ernest C., assignor of one-half to E. W. Smith, Albany, N. Y. Compound air-compressing pump.....	385,853	July 10	780	206	44	159
Fassett, Nelson B., Moline, Ill. Machine for coupling chain-links.....	377,376	Feb. 7	11	4	42	497
Fate, John L., Milwaukee, Wis. Station and street indicator.....	382,519	May 8	970	241	43	703
Fate, John L., Milwaukee, Wis. Station and street indicator.....	382,520	May 8	972	245	43	704
Fatie, Henry, Middletown, Ind. Sugar-cane harvester.....	387,061	July 31	2558	673	44	530
Fauler, W. H. Harry, Marshfield, Ind. Attachment for fence-machines.....	376,645	Jan. 17	1325	348	42	268
Faucet Bottle Company. (See Hoyt, Lewis S., assignor.)						
Faucette, James B., Little Rock, Ark. Distance-instrument.....	387,633	Aug. 14	666	173	41	707
Faulkner, George S., Indianapolis, Ind. Gas pressure-regulator and cut-off.....	384,967	June 26	1677	435	43	1465
Faulkner, J. P. (See Dickey, Anthony T., assignor.)						
Faulkner, James J., Jackson, Mich. Flour-mill.....	385,175	June 26	1997	512	43	1531
Faulkner, John, Austin, Ill. Supply-check and waste-pipe valve.....	384,833	June 19	1488	388	43	1420
Faulkner, Oscar F. A., Mount Pleasant, Iowa. Farm-gate.....	392,599	Nov. 13	626	157	45	721
Faure, Camille A., New York, N. Y. Obtaining aluminium chloride.....	385,345	July 3	11		44	4
Faure, Camille A., New York, N. Y. Preparing asbestos.....	389,210	Sept. 11	624		41	1197
Faure, Camille A., New York, N. Y., assignor to Electrical Accumulator Company, of New York. Application of electricity to car-lighting.....	379,567	Mar. 20	1036	276	42	1177
Faure, Camille A., New York, N. Y., assignor to Electrical Accumulator Company, of New York. Automatic switch for secondary batteries.....	382,599	May 8	1102	2-3	43	730
Faure, Camille A., New York, N. Y., assignor to Electrical Accumulator Company, of New York. Propelling vehicles by electricity.....	383,561	May 29	2525	666	43	1028
Faure, Camille A., New York, N. Y., assignor to Electrical Accumulator Company, of New York. Secondary battery.....	383,562	May 29	2527	666	43	1028
Faure, Camille A., New York, N. Y., assignor to Electrical Accumulator Company, of New York. Secondary battery.....	389,882	Sept. 25	1653	438	41	1409
Faure, Camille A., Paris, France, assignor to Electrical Accumulator Company, of New York. Secondary battery.....	383,560	May 29	2525	666	43	1028
Faust, Jacob N., Rockford, Ill. Garment-supporter.....	393,550	Nov. 27	2024	530	45	1014
Faustmann, George, Philadelphia, Pa. Gimp-machine.....	385,048	June 26	1821	467	41	1494
Favarger, Theodor, Paris, France, assignor to Hotchkiss Ordnance Company, (limited,) London, England. Guard-cordon for the protection of ships.....	391,362	Oct. 16	1656	438	45	332
Favell, Thomas M. (See Stokes, Loney, and Favell.)						
Favier, Arthur, Paris, France. Explosive and making the same.....	393,634	Nov. 27	2147	561	45	1038
Favre, Jean C. J. C., Montreal, Quebec, Canada. Coin-controlled weighing-machine.....	393,325	Nov. 20	1679	442	45	937
Fawcett, William, Jersey City, N. J. Chill.....	390,200	Oct. 2	125	36	45	28
Fawcett, William, Jersey City, N. J. Chill-mold apparatus.....	390,355	Oct. 2	221	58, 59	45	47
Fawell, Joseph, and J. Hemphill, Pittsburg, Pa. Rolling-mill.....	382,035	May 1	240	61, 62	43	558
Fay, Charles R., Auburn, N. Y. Suspending device.....	383,873	June 5	34	11	43	1128
Fay, Charles R., Auburn, N. Y. Picture-hook.....	393,062	Nov. 20	1301	338	45	891
Fay, Frank E., et al. (See Leland, Sanford D., assignor.)						
Fay, Frederick E., Bryan, Ohio. Wheelbarrow.....	390,356	Oct. 2	223	59, 60	45	47
Fay, Henry C., Worcester, Mass. Folding case.....	382,804	May 15	1388	364	43	795
Fay, Henry R., Boston, Mass. Valve-gear.....	375,927	Jan. 3	270	73	42	56
Fay, Lewis G. (See Dorrington and Fay.)						
Fay, Rimonon C., Hopdale, Mass. Lathe.....	379,568	Mar. 20	1038	276 277	42	1177
Fearon, Charles, Philadelphia, Pa. Game-counter.....	380,428	Apr. 3	176	48	43	36
Pears, William H. (See Hall, Francis A., assignor.)						
Feckheimer, Isaac. (See Watson, Andrew J., assignor.)						
Fee, William R., Cincinnati, Ohio, assignor to H. Maley, H. C. Bailey, and G. E. Mayfield, Edinburg, Ind. Wooden split pulley.....	379,198	Mar. 6	471	134 135	42	1057
Fee, William R., Cincinnati, Ohio, assignor to H. Maley, H. C. Bailey, and G. E. Mayfield, Edinburg, Ind. Wood split pulley.....	393,326	Nov. 20	1681	413	45	937
Fee, William R., Cincinnati, Ohio, assignor to H. Maley, H. C. Bailey, and G. E. Mayfield, Edinburg, Ind. Wood split pulley.....	393,327	Nov. 20	1682	413	45	937
Fee, William R., Cincinnati, Ohio, assignor to Willingham Lumber Company, Chattanooga, Tenn. Pulley.....	379,946	Mar. 27	1627	433	42	1300
Feed Water Heater Company. (See Fairbanks, Thaddeus, assignor.)						
Feeney, Michael B., New York, N. Y. Automatic screen or door for obstructing the passage of flame.....	381,141	June 5	443	122 123	43	1206
Fegley, Isaac, et al. (See McCarthy, Felix, assignor.)						
Fehrer, Joseph, assignor of one-half to A. S. Bohn, Frederick, Md. Corn-planter.....	384,834	June 19	1459	388 389	43	1120

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Disg.	Vol.	Page.
Feicker, Fredrick C., assignor to Northampton Cutlery Company, Northampton, Mass. Pork-guard	380,793	Apr. 10	742	203	43	156
Feicker, Fredrick C., assignor to Northampton Cutlery Company, Northampton, Mass. Pork-guard	384,900	June 19	1583	412	43	1438
Felding, Frank, Milwaukee, Wis. Pianissimo-pedal for pianos	387,503	Aug. 7	453	119	44	661
Feldhaus, Henry B. (See Fink, John M., assignor.)	386,308	July 17	1440	381	44	294
Felix, Numa J., New York, N. Y. Watch-case spring	379,455	Mar. 13	860	232	42	1135
Fell, Amos C., and B. F. Blair, Newville, Ind. Land-marker	379,383	Mar. 13	753	204	42	1114
Fell Manufacturing Company. (See Fell, Thomas M., assignor.)	392,418	Nov. 6	356	88	45	662
Fell, Thomas M., Tenafly, N. J., assignor, by mesne assignments, to Fell Manufacturing Company. Oil-lamp	380,877	Apr. 10	863	232	43	177
Fellows, George A., Chicago, Ill. Cabinet-case for holding railway-folders	391,132	Oct. 16	1340	357	45	273
Fellows, John M., Burlington, Ind. Fence	379,384	Mar. 13	754	204	42	1115
Fels, Fajwel, and D. Simon, Philadelphia, Pa. Dress-chart						
Felthousen, E. G., et al. (See Hart, Thomas J., assignor.)						
Felts, Andrew W., et al. (See Neff, Elijah, assignor.)						
Fender, William J., Jackson, Mich., assignor to E. P. Allis & Co., Milwaukee, Wis. Mid- dlings-purifier	379,155	Mar. 6	419	{ 118 119 }	{ 42 43 }	1045
Fenlon, Thomas P., Jr., et al. (See Winnek, Frederick G., assignor.)	384,684	June 19	1261	331	43	1377
Fenn, Henry, Bridgeport, Conn. Ticket-holder	389,800	Sept. 18	1519	{ 401 402 }	{ 44 45 }	1377
Fenner, George P., New London, Conn. Delivery mechanism for printing-machines	385,923	July 10	883	234	44	181
Fenner, James E., assignor of one-half to H. G. Dixon, Delphi, N. Y. Stove-pipe dam- per	375,808	Jan. 3	115	33	42	27
Fenner, Lawrence A., Virginia City, Mont. Terr. Rock-separating apparatus for mining- sluices	382,421	May 8	813	207	43	674
Fenner, Richard E., assignor to C. K. Giles, Chicago, Ill. Electric-arc lamp	379,947	Mar. 27	1628	433	42	1301
Fennessy, Edward H. (See Buhan, Fred P., assignor.)	386,630	July 24	1908	504	44	398
Fenton, Horace, Wethersfield, Conn. Universal pipe-joint	388,483	Aug. 28	1984	532	44	975
Fenton, John H., Chicago, Ill. Horse-boot	389,374	Sept. 11	870	224	44	1246
Fenton, Joseph T., Newtown, Pa. Grain-separator for thrashers						
Féraud, Alphonse L., Paris, France. Hanging car-bodies	395,127	Dec. 25	2174	561	45	1518
Ferguson, Duncan, et al. (See Welles, Robert, assignor.)						
Ferguson, Harry, New York, N. Y. Ring for upholstery, &c	386,873	July 31	2297	604	44	478
Ferguson, James. (See Humstone, Edwin M., assignor.)	394,258	Dec. 11	779	206	45	1223
Ferguson, James. (See Rice, David H., assignor.)	391,307	Oct. 16	1583	420	45	319
Ferguson, James E. (See Surprenant and Ferguson.)	377,519	Feb. 7	262	66	42	545
Ferguson, James F., Burlington, Vt. Water-trough with submerged heater						
Ferguson, James R., New York, N. Y. Holder for files or books	392,952	Nov. 13	1135	295	45	821
Ferguson, James R. and J., Chester, Conn. Sleeve-holder	395,045	Dec. 25	2039	{ 526 527 }	{ 45 46 }	1492
Ferguson, Jared C., Hanover, Ohio. Stock-loading chute	10,925	May 1	606	{ 153 154 }	{ 43 44 }	624
Ferguson, John. (See Ferguson, James R. and J.)	389,557	Sept. 18	1147	301	44	1304
Fergusson, John, assignor of one-half to F. M. McAlister, Kansas City, Mo. Cut-off table for brick-machines	390,217	Oct. 2	38	10	45	10
Fernandez, Robert, Brooklyn, N. Y. Wagon-gear	394,066	Dec. 4	484	129	45	1164
Ferre, Alfred E., Boston, Mass., assignor to E. C. Potts, Tivoli, N. Y. Making sirup and beer from maize. (Reissue)	386,190	July 17	1256	335	44	261
Ferrall, Thomas R., Boston, Mass. Snatch-block	381,005	Apr. 10	1067	283	43	215
Ferrall, Thomas R., Boston, Mass. Pulley-block	389,211	Sept. 11	624	159	44	1197
Ferree, Albert G., Bloomington, Ill. Spring-motor	380,878	Apr. 10	864	233	43	178
Ferrell, Alexander, Terrell, Tex. Stalk-chopper	381,142	June 5	444	{ 123 124 }	{ 43 44 }	1206
Ferrell, Leonidas C., and D. Israel, Donaldsonville, La. Shackle						
Ferren, Myron J., Stoneham, Mass. Button-hook						
Ferrier, Philo, Ypsilanti, Mich. Roller-mill						
Ferris, George L., St. Louis, Mo. Type-writing machine						
Ferris, George W. D. (See Todd, James, assignor.)						
Ferris, Henry F., St. Louis, Mo., assignor to Paperine Manufacturing Company, East St. Louis, Ill. Material for railway-rails, building-blocks, paving-blocks, &c	386,064	July 10	1068		44	218
Ferris, Henry L. (See Hunt, Helm, and Ferris.)						
Ferris, Hiram R. (See Young, Lambert, and Ferris.)						
Ferris, Laing L., New York, N. Y. Paper-file	392,419	Nov. 6	358	88, 89	45	662
Ferris, Sherwood B., Lakewood, N. J. Stocking-supporter	376,298	Jan. 10	807	213	42	164
Ferris, Sherwood B., Lakewood, N. J. Clasp or buckle	386,191	July 17	1257	336	44	262
Ferry, Carlostin C., Hillsborough, assignor of one-half to R. O. Wood, Manchester, N. H. Spring-bed	377,377	Feb. 7	15	5	42	498
Ferry, George J. (See Clark, Aaron T., assignor.)						
Ferry, William C., Fowler, Ind. Attachment for plows	387,501	Aug. 7	454	119	44	662
Fesler, William H., Columbiana, Ohio. Billiard-cue	384,614	June 19	1159	306	43	1357
Fessenden, George B., Boston, Mass. Watchman's time-detector	381,992	May 1	154	39	43	543
Fessenden, George B., Boston, Mass. Watchman's time-detector	381,993	May 1	156	39, 40	43	543
Fessinden, Frank E. (See Harkness and Fessinden.)						
Fest, William P., Brooklyn, N. Y. Pole attachment for vehicles	388,189	Aug. 21	1544	{ 410 411 }	{ 44 45 }	882
Fest, William P., Brooklyn, assignor to J. B. Brewster & Company, New York, N. Y. Car- riage-door lock	378,582	Feb. 28	1859	491	42	883
Fether, Simon H., Pottsville, Ohio. Latch	394,685	Dec. 18	1451	378	45	1369
Fetzer, George H., Woodberry, Md. Corn-cutting machine	389,066	Sept. 4	378	99	44	1144
Feuchter, Charles P., et al. (See Boore, Lewis, assignor.)						
Feustell, Friedrich, Altona, assignor to H. Fuchs, Offenbach-on-the-Main, Germany. In- secticide	378,583	Feb. 28	1859		42	883
Fewlass, George. (See Williams and Fewlass.)						
Fewson, Hartley, Buckingham, county of Bucks, England. Apparatus for treating noxious gases with electricity	387,286	Aug. 7	122	32	44	596
Fichtner, Josef, assignor of one-half to C. S. Raessler, Milwaukee, Wis. Hand-loom	392,859	Nov. 13	1011	259	45	798
Fickett, Albert, assignor of one-half to T. W. Hulet, Rochester, N. Y. Clamp for wire-and- picket fences	376,299	Jan. 10	808	213	42	164
Fickett, Albert, assignor of one-half to T. W. Hulet, Rochester, N. Y. Device for prevent- ing the incrustation of boiler-tubes	392,548	Nov. 6	544	137	45	698
Fiege, Philip, Lanesville, Va. Road-cart	377,673	Feb. 7	487	126	42	587
Field, Albert D., New York, N. Y. Curtain-pole covering	378,085	Feb. 21	1111	290	42	732
Field, Albert D., New York, N. Y. Upholstered curtain-pole	378,086	Feb. 21	1111	291	42	733
Field, Albert D., New York, N. Y. Adjustable or extension curtain-pole	378,087	Feb. 21	1112	291	42	732

## Alphabetical list of patenters—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Field, Augustus B., trustee. (See Barret, John R., assignor.)						
Field, Benjamin F., Chicago, Ill. Barrel-cover attachment	383,349	May 22	2187	578	43	960
Field, Edwin S., and S. K. Hindley, Springfield, Mass. Fire-arm	391,953	Oct. 30	2493	675	45	520
Field, Stephen D., Yonkers, N. Y. Conduit for electric railways	380,103	Mar. 27	1860	494 495 233	42	1346
Field, Stephen D., Yonkers, N. Y. Electric locomotor	380,879	Apr. 10	865	234	43	178
Field, Stephen D., Yonkers, N. Y. Electric locomotive	380,880	Apr. 10	871	231	43	179
Field, Stephen D., Yonkers, N. Y. Regulation of electric motors	381,768	Apr. 24	2192	574	43	462
Field, Stephen D., Yonkers, N. Y. Electric railway	384,685	June 19	1262	331 332	43	1377
Field, Stephen D., Yonkers, N. Y. Telegraphy	389,883	Sept. 25	1655	430	44	1409
Field, Stephen D., Yonkers, N. Y. Regulator for dynamo-electric machines	391,954	Oct. 30	2495	676	45	520
Field, Stephen D., Stockbridge, Mass. Telegraphy	392,914	Nov. 13	1080	280	45	811
Field, Stephen D., New York, N. Y. Electric railway	393,224	Nov. 20	1527	400	45	906
Field, Thomas C., Forest City, Mo. Buckle	376,210	Jan. 10	729	194	42	150
Field, Wallace L., assignor of three-fourths to J. Strange, Menasha, Wis. Split pulley	388,190	Aug. 21	1545	411	44	882
Field, Walter D., Short Hills, N. J. Pyroxyline varnish	384,354	Apr. 17	1500		43	326
Fidler, Edwin H. J., Providence, R. I. Picking sweep strap connection for looms	382,600	May 8	1103	283	43	730
Fields, James H., Lebanon, Tenn. Car-coupling	383,517	May 29	2456	651	43	1015
Fields, Samuel L., Cherokee Nation, Indian Ter. Car-coupling	391,525	Oct. 23	1882	505	45	387
Fietsch, Herman, Jr., assignor of one-half to D. W. Ryan, Chicago, Ill. Block for locking stereotyp-plates for printing	388,032	Aug. 21	1268	344	44	833
Fifield, Charles S., Revere, Mass. Seam-rubbing machine	383,874	June 5	34	11	43	1128
Fifield, Charles S., Revere, Mass. Seam-rubbing machine	386,241	July 17	1351	356	44	278
Fifield, Levi W., assignor of one-half to A. H. Steele, Worcester, Mass. Loom-shuttle	386,531	July 24	1780	471	44	372
Fifield, Zachus B., St. Paul, Minn. Self-cleaning smoke-jack	383,875	June 5	35	12	43	1128
Fillebrown, Augustus A. (See Frost, Oscar F., assignor.)						
Filley, Giles F., St. Louis, Mo. Stove-oven	377,378	Jan. 7	16	5	42	498
Filliez, Peter F., and A. C. Monnin, Canton, Ohio. Bicycle	376,241	Feb. 10	730	194	42	150
Filstrup, Lars L., Ravenswood, and G. Van Zandt, Chicago, Ill. Tuning-peg for stringed instruments	382,465	May 8	888	226	43	687
Finch, James B., Newark, N. J. Horseshoe	378,046	Feb. 14	1056	276	42	713
Finch, John L., Warwick, N. Y. Wrench	378,299	Feb. 21	1443	376	42	792
Finch, Thomas F. N., Worcester, county of Worcester, England. Axle-box	392,328	Nov. 20	1663	444	45	937
Finck, Julius, San Francisco, Cal. Electric gas-lighter	377,553	Feb. 7	307	78	42	553
Finerty, John, and F. A. Moore, Pittsburg, Pa. Device for finishing the necks of bottles	395,220	Dec. 25	2338	598	45	1446
Finigan, Peter A., San Francisco, Cal. Stalls for separating horses on race-tracks	382,961	May 15	1597	417	43	837
Finigan, Timothy F. (See Barber and Finigan.)						
Fink, Jacob M., New York, N. Y. Fire-escape	389,696	Sept. 18	1372	359 360	44	1316
Fink, John M., assignor of one-half to H. B. Feldhaus, Louisville, Ky. Press for forming leather saddle-trees	382,962	May 15	1509	417 418	43	837
Fink, Marx, Pittsburg, Pa. Ornamenting glass	384,569	June 12	1091	286	43	1336
Fink, Millard F., Middletown, Md. Gate	382,601	May 8	1104	283	43	730
Finke, John J., South Pueblo, Colo. Hand-stamp	378,065	Feb. 14	1078	283	42	718
Finks, Alberto, New Berlin, N. Y. Road-machine	378,781	Feb. 28	2128	563	42	933
Finks, Alberto, New Berlin, N. Y. Road digger and grader	378,782	Feb. 28	2130	563 564	42	934
Finks, Alberto, New Berlin, N. Y. Road-grader	383,350	May 22	2189	579	43	960
Finlay, Alexander K., New Orleans, La. Cooler for soda-water apparatus, &c.	383,518	May 29	2457	651	43	1016
Finlay, Robert H., Glasgow, county of Lanark, Scotland. Pot for condiments and the like	388,657	Aug. 28	2227	597	44	1021
Finlay, William, Schoolcraft, Mich. Wash-board	392,669	Nov. 13	726	184	45	739
Finley, John E., Memphis, Tenn. Churn-dasher	380,753	Apr. 10	672	185	43	113
Finn, Samuel, and C. H. Sangster, Buffalo, N. Y. Lamp-shade	394,760	Dec. 18	1563	409	45	1393
Firth, Edwin, Troy, N. Y. Vehicle-axle	385,798	July 10	693	180	44	143
Firth, Edwin, A. and I. Tompkins, Troy, N. Y. Screw-tap	379,213	Mar. 13	514	144	42	1069
Firth, Edwin, A. and I. Tompkins, Troy, N. Y. Capping axle-nuts	379,214	Mar. 13	515	145	42	1069
Firth, Edwin, A. and I. Tompkins, Troy, N. Y. Manufacture of axle-skins	384,355	Apr. 17	1591	426	43	326
Firth, Edwin, and J. Cornthwaite, Troy, N. Y. Machine for making horseshoes	392,322	Nov. 6	206	54, 55	45	633
Firth, Edwin, and J. Cornthwaite, Troy, N. Y. Rolls for punching and creasing horseshoe-blanks	392,505	Nov. 6	422	121	45	686
Fischbach, Henry W. (See Richardson Aubrey, assignor.)						
Fischbach, Wilhelm. (See Volkmann, Otto, assignor.)						
Fischer, August, Winchester, Ill. Setting mechanism for watches	388,404	Aug. 28	1876	501	44	952
Fischer, Clemens, et al. (See Treban, Frank, assignor.)						
Fischer, Frank G., Harrold, Dak. Ter. Bag-holder	380,734	Apr. 10	743	204	43	156
Fischer, Frederick. (See Zolly, John, assignor.)						
Fischer, Frederick G., assignor of one-half to J. C. Higdon, Kansas City, Mo. Base-ball glove	381,687	Apr. 24	2080	544	43	441
Fischer, Friedrich, Des Moines, Iowa. Steam-engine	384,246	June 12	612	164	43	1248
Fischer, Henry, and L. Ewald, Minneapolis, Minn. Door-mat	387,678	Aug. 14	735	188	44	720
Fischer Ice Tool Company. (See Fischer, Joseph B., assignor.)						
Fischer, Jacob, Pittsburg, Pa. Iron-holder	377,297	Jan. 31	2283	604	42	467
Fischer, John, Louisville, Ky. Harness-saddle	392,020	Oct. 30	2593	706	45	539
Fischer, Joseph B., assignor to Fischer Ice Tool Company, Hamilton, Ohio. Ice-marker	394,917	Dec. 18	1854	479	45	1447
Fiscus, Elias, Audubon, Iowa. Automatic grain-weigher	391,888	Oct. 30	1401	650	45	502
Fish, Abner C., assignor to M. L. Fish, Racine, Wis. Vehicle-spring	378,300	Feb. 21	1444	376	42	792
Fish, Henry C. (See Pond and Norton, assignors.)						
Fish, John R., Grand Rapids, assignor to H. C. and C. C. Hodges, Detroit, Mich. Car-truck	378,925	Mar. 6	90	26	42	984
Fish, John R., Grand Rapids, assignor to H. C. and C. C. Hodges, Detroit, Mich. Car-truck	378,926	Mar. 6	91	26	42	984
Fish, Marion L. (See Fish, Abner C., assignor.)						
Fish, Oren, assignor of one-half to G. H. Kingsley, Cleveland, Ohio. Manufacturing so-called chisel-brushes	392,420	Nov. 6	359	89	45	662
Fish, Sidell E., Greeport, assignor of one-half to E. Pearl, New York, N. Y. Cash-delivery device	385,665	July 3	495	128	44	96
Fish, Thomas W., Philadelphia, Pa. Combined paper-cutter, envelope moistener, and rubber	390,579	Oct. 2	535	140	45	108
Fish, Warren L., Newark, N. J. Saddle for velocipedes	385,686	July 3	410	105	44	80
Fisbel, Charles W., Fair Play, Colo. Flour or meal bin	392,793	Nov. 13	919	235	45	778
Fisher, Charles. (See Rensland and Fisher.)						
Fisher, Comodore P. (See Snyder and Fisher.)						
Fisher, Daniel S., Eureka, Ill. Scaffolding	380,354	Mar. 27	2061	551	42	1387

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Fisher, Edmund G., Minneapolis, Minn. Registering and recording weighing-scale .....	383,451	May 29	2344	{ 633 634 }	43	994
Fisher, Emil, assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Shade-ring for hanging lamps.....	389,375	Sept. 11	672	225	44	1247
Fisher, Frank E., Detroit, Mich. Telephone call-bell system.....	383,563	May 29	2528	{ 666 667 }	43	1029
Fisher, Frank E., Detroit, Mich. Armature for electric motors .....	383,564	May 29	2529	667	43	1029
Fisher, Frank E., Detroit, Mich. Dynamo-armature.....	383,565	May 29	2530	667	43	1029
Fisher, Frank E., Detroit, Mich. Annunciator.....	383,566	May 29	2531	668	43	1029
Fisher, Frank E., Detroit, Mich. Armature for dynamos.....	383,567	May 29	2532	668	43	1029
Fisher, Frank E., Detroit, Mich. Trolley.....	393,749	Dec. 4	22	8	45	1076
Fisher, George, and P. Rappold, Toledo, Ohio. Alarm water-gage.....	380,881	Apr. 10	872	234	43	179
Fisher, Harvey L. (See Ballard and Fisher.)						
Fisher, Herbert A., Cavour, Dak. Ter. Hay and straw burner .....	391,464	Oct. 23	1802	482	45	369
Fisher, James L., et al. (See Payne, Samuel A., assignor.)						
Fisher, Joab C., Beloit, Kans. Grain-cleaner.....	393,635	Nov. 27	2148	{ 561 562 }	45	1038
Fisher, John E., Boston, Mass. Vehicle-wheel.....	390,762	Oct. 9	786	299	45	163
Fisher, Joseph H., Merchantville, N. J. Automatic wagon-brake .....	380,754	Apr. 10	672	156	43	143
Fisher, Joseph H., Deerfield, Ill. Truck-bar.....	388,770	Aug. 28	2398	647	44	1052
Fisher, Josiah J. (See Davis and Fisher.)						
Fisher, Lucius G. (See Schmidt, Carl F., assignor.)						
Fishkill Landing Machine Company. (See Côté, Joseph D., assignor.)						
Fisk, Asa S., Binghamton, N. Y. Stove-hood ventilator .....	378,669	Feb. 28	1980	525	42	907
Fisk, Willis J., and H. L. Phelps, assignors of one-half to T. J. Simcoe, Lockwood, N. Y. Rotary engine .....	379,385	Mar. 13	755	204	42	1115
Fiske, Bradley A., U. S. Navy. Means for regulating and controlling electric motors .....	381,228	Apr. 17	1401	375	43	288
Fiske, Bradley A., U. S. Navy. Steering apparatus for vessels .....	385,259	June 26	2133	544	43	1559
Fiske, Bradley A., U. S. Navy. Electric motor.....	387,714	Aug. 14	791	203	44	730
Fiske, Bradley A., U. S. Navy. Pencil-holder.....	393,426	Nov. 27	1823	481	45	972
Fiske, Bradley A., U. S. Navy, assignor to Western Union Telegraph Company, New York, N. Y. Printing-telegraph.....	389,142	Sept. 4	511	{ 131 132 }	44	1167
Fiske, Henry P., assignor to American Ring Company, Waterbury, Conn. Machine for making decorative nails .....	388,126	Aug. 21	1415	{ 387 388 }	44	864
Fiske, John D., Baltimore, Md. Valve for steam-engines .....	383,287	May 22	2108	557	43	945
Fiske, Samuel, New York, N. Y. Cane-shredder.....	390,580	Oct. 2	535	{ 140 141 }	45	108
Fister, George H., Elkhart, Ind. Letter-box .....	389,744	Sept. 18	1443	378	44	1361
Fitch, Arden S. (See Volney, Carl W., assignor.)						
Fitch, Asa M., Seymour, Ind. Card-game.....	393,969	Dec. 4	345	93	45	1137
Fitch, Calvin H., Pontney, Vt. Prescription-weighing scale .....	384,247	June 12	613	165	43	1248
Fitch, Charles T., Elizabeth, N. J. Pallet for drying brick .....	387,405	Aug. 7	304	78	44	631
Fitch, Derick H., Cazenovia, N. Y. Electrolyte for galvanic batteries.....	387,679	Aug. 14	736	189	44	730
Fitch, Edwin R., assignor of one-half to C. Wheeler, Jr., Auburn, N. Y. Identifying device.....	385,106	June 26	1905	425	43	1512
Fitch, Eugene, Des Moines, Iowa. Cabinet for type-writing machines.....	393,325	Nov. 20	1529	400	45	907
Fitch, Henry C., Portland, Me. Peg for stringed musical instruments.....	389,958	Sept. 23	1762	467	44	1432
Fitch, Nancy M., Springfield, Ohio. China-kiln.....	395,128	Dec. 25	2175	561	45	1518
Fitch, William D. (See McArthur, Robert C., assignor.)						
Fitchburg Machine Works. (See Marble, George L., assignor.)						
Fitchit, William R., Pinnebog, Mich. Rook-elevator.....	379,693	Mar. 20	1924	3.5	42	1213
Fithian, Charles B., Camden, N. J. Car-brake.....	387,219	Aug. 7	31	7	44	578
Fitz Gerald, Augustine F., Brooklyn, assignor to Van Derveer & Holmes Biscuit Company, New York, N. Y. Box or canister .....	390,763	Oct. 9	787	210	45	163
Fitz Gerald, Augustine F., Brooklyn, assignor to Van Derveer & Holmes Biscuit Company, New York, N. Y. Glass-cleaning machine .....	392,600	Nov. 13	627	{ 157 158 }	45	721
Fitzberger, John, Baltimore, Md. Brako for edging roofing-tin .....	391,408	Oct. 23	1724	479	45	354
Fitzgerald, James A., Philadelphia, Pa. Display-rack .....	383,117	May 22	1861	487	43	898
Fitzgerald, John H., Frankford, W. Va. Plastering composition .....	391,889	Oct. 30	2403	452	45	502
Fitzgerald, John H., Frankford, W. Va. Plastering composition .....	391,890	Oct. 30	2403	452	45	502
Fitzgerald, John P. (See Janssen, Gustave, assignor.)						
Fitzgerald, Mathew, assignor of one-half to T. McDonough, Troy, N. Y. Steel tie for rail-way-tracks.....	383,118	May 22	1865	487	43	899
Fitzgerald, Michael, assignor to R. C. Paul, Sr., Cumberland, Md. Core-box .....	394,108	Dec. 4	543	145	45	1174
Fitzgerald, Thomas, Revere, Mass. Kerosene-lamp burner .....	377,195	Jan. 31	2122	560	42	438
Fitzgibbon, James J., Minneapolis, Minn. Burnishing-machine.....	386,920	July 31	2369	622	44	492
Fitzpatrick, John T., Worcester, Mass. Roof cast-iron soil-pipe connection.....	372,360	Feb. 21	1527	399	42	809
Fitzpatrick, Thomas, New York, N. Y. Apparatus for automatically lubricating steam-chests.....	384,354	June 12	776	202	43	1276
Flack, Albert L., et al. (See Struble, Charles W., assignor.)						
Flack, James M., Shelby, N. C. Churn .....	386,393	July 17	1550	411	44	316
Flagg & Co., Stanley G. (See Engström, Axel H., assignor.)						
Flagg, Eli W., assignor to Nichols & Shepard Company, Battle Creek, Mich. Grain-separator .....	387,869	Aug. 14	1004	261	44	772
Flagg, George C., Columbus, assignor of one-half to J. Rump, Quincy, Ill. Grain-weighing machine .....	392,670	Nov. 13	727	184	45	740
Flagg, George H., et al. (See Bradford, Charles K., assignor.)						
Flagg, George H. P., et al. (See Bradford, Charles K., assignor.)						
Flagg, George H. P., trustee. (See Fullerton, George A., assignor.)						
Flagg, George H. P., trustee. (See Helms, Charles H., assignor.)						
Flagg, Joseph W. (See Clafin and Flagg.)						
Flagler, John H., New York, N. Y. Manufacture of shafts and ordnance .....	385,049	June 26	1822	467	43	1495
Flaherty, Thomas, Pittsburg, Pa. Device for indicating the position of boat-rudders .....	390,764	Oct. 9	789	210	45	163
Flammang, Mathias, Newark, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Shutter mechanism for photographic cameras .....	377,554	Feb. 7	308	79	42	554
Flammang, Mathias, Newark, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Photographic-plate holder.....	384,835	June 19	1496	389	43	1822
Flanagan, Joel A., Air Mount, Miss. Fence.....	376,646	Jan. 17	1326	348	42	268
Flanagan, William, Chicago, Ill. Apparatus for heating railway-cars .....	375,738	Jan. 3	25	8	42	8
Flanagan, James I., Philadelphia, Pa. Plug stopper and collar .....	388,961	Sept. 4	229	61	44	1116
Flaspoecher, Henry H. (See Etheridge and Flaspoecher.)						
Fleck, Bernhard, Mühlhausen, Thuringia, assignor to Heilbrunn Söhne, Erfurt, Germany. Military drum .....	388,771	Aug. 28	2388	647	44	1052
Fleetwood, Caleb V., Cleves, Ohio. Petroleum-burner .....	392,021	Oct. 30	2594	706	45	510
Fleetwood, Caleb V., Cleves, Ohio. Petroleum-burner .....	392,022	Oct. 30	2595	706	45	540

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Flegle, Martin, Minneapolis, Minn. Composition of matter to be used for plastering.....	393,002	Nov. 20	1221	.....	45	845
Flehart, William F. (See Burgess and Flehart.)						
Fleisch, Jacob H., New York, N. Y. Packing and display box for neck-wear.....	386,807	July 31	2173	573	44	457
Fleischmann, Charles L., Washington, D. C. Sewing-machine.....	380,317	Apr. 3	15	4	43	6
Fleming, Alexander, Cedar Town, Ga. Cotton-chopper.....	380,429	Apr. 3	176	48	43	36
Fleming, Charles F. (See Fleming, George A. and C. F.)						
Fleming, George A. and C. F., San José, Cal. Fruit-gatherer.....	389,697	Sept. 18	1374	360	44	1346
Fleming, John, assignor of one-half to W. J. Wallace, Cornwall, Ontario, Canada. Screening apparatus for paper-machines.....	392,023	Oct. 30	2597	706	45	510
Fleming Manufacturing Company. (See Mungen, John J., assignor.)						
Fleming, Maybury W., New Brighton, and C. R. Le Sauvage, Brooklyn, N. Y. School-slate and ruler therefor.....	383,945	June 5	154	45	43	1150
Fleming, William, Fort Wayne, Ind. Road-grading machine.....	387,348	Aug. 7	221	58	44	614
Flemming, Dudley D., Jersey City, N. J. Retort gas-furnace.....	385,854	July 10	781	207	44	159
Fletcher, Andrew M., Winchester, Mass. Hide lifter and carrier for tanneries.....	378,670	Feb. 28	1982	525	42	907
Fletcher, Charles J. (See Gorman and Fletcher.)						
Fletcher, Edward, Portland, Me., assignor to H. Loud, Everett, Mass. Machine for forming tackle-block straps and hooks.....	375,928	Jan. 3	271	{ 73 74 75 }	42	57
Fletcher, Edwin J., New York, N. Y. Show-case.....	390,581	Oct. 2	537	141	45	108
Fletcher, Edwin J., New York, N. Y. Show-case.....	390,582	Oct. 2	539	141	45	108
Fletcher, Elmer, Needham, assignor of one-half to G. W. Hills, Boston, Mass. Stitching button-holes.....	389,840	Sept. 18	1572	416	44	1387
Fletcher, James R., Clarksville, Iowa. Elliptic spring.....	384,750	June 19	1358	355	43	1396
Fletcher, John N., San Francisco, Cal., assignor to Unexcelled Fire-Works Company, New York, N. Y. Line-throwing projectile.....	376,375	Jan. 10	914	240	42	184
Fletcher, John R. (See Schardt, Benjamin, assignor.)						
Fletemeyer, John R. (See Schardt and Jones, assignors.)						
Fletemeyer, Henry C., Lafayette, Ind. Car-brake.....	391,308	Oct. 16	1584	420	45	319
Fletemeyer, Henry C., Lafayette, Ind. Car-brake.....	391,309	Oct. 16	1585	421	45	320
Flick, Andrew, Halifax, Nova Scotia, Canada. Trap for lobster-fishing.....	390,218	Oct. 2	39	10	45	10
Flicker, David W., et al. (See Pritchard and Templeton, assignors.)						
Flier, Daniel H., Coopersburg, Pa. Milk-can.....	391,039	Oct. 16	1214	322	45	250
Flinn, Thomas F., Brooklyn, N. Y. Anti-friction bearing.....	386,698	July 24	2001	529	44	415
Flinn, William H., Nashua, N. H., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Knob attachment.....	379,639	Mar. 20	1142	302	42	1197
Flinner, John, Boling, Kans. Gate.....	381,688	Apr. 24	2081	544	43	441
Flint, Nathan R., East Hiram, Me. Lathe for wooden handles.....	384,555	June 12	776	203	43	1276
Flint, Samuel E., assignor of one-third to W. F. Mills, St. Louis, Mo. Smoke-preventer.....	392,549	Nov. 6	545	{ 137 138 }	45	698
Flint, William P., Marysville, Cal. Billiard-table.....	385,346	July 3	11	3	44	4
Floechker, Albert H., et al. (See Harrison, Arthur W., assignor.)						
Flohr, Otto, Newark, N. J. Friction-clutch.....	375,739	Jan. 3	26	9	42	9
Flohr, Otto, Newark, N. J. Bed, &c.....	389,292	Sept. 11	765	{ 194 195 }	44	1226
Flood, Freeman, W. (See Pierce, Eugene F., assignor.)						
Floquet, Paulin. (See De Willers, Leopold C., assignor.)						
Florence Machine Company. (See Gaylor, George B., assignor.)						
Florence Machine Company. (See Shumway, Albert W., assignor.)						
Florence Manufacturing Company. (See Estabrook, Alanson C., assignor.)						
Floresheim, Simon, et al. (See Gardner, Marshall, assignor.)						
Flotron, Elias, and P. B. A. R. De la Bastie, Paris, France. Submarine and subterranean electric cable.....	393,823	Dec. 4	126	34	45	1096
Flower, Reese W., Jr., and S. L. Wiegand, Philadelphia, Pa. Metallic railway-tie.....	386,119	July 17	1159	308	44	241
Flowers, Martin L., assignor of one-half to W. A. and W. R. Taylor, New Orleans, La. Scraper for cane-mills.....	389,801	Sept. 18	1521	402	44	1377
Floyd, Edward A., Paola, Kans. Artificial tooth.....	384,836	June 19	1497	389	43	1422
Floyd, John. (See Murphy and Floyd.)						
Floyd, Richard. (See Grant, Oscar F., assignor.)						
Floyd, William B. (See King, Aten, and Floyd.)						
Flynn, James W., et al. (See Haws, William H., assignor.)						
Flynn, Michael M. (See White and Flynn.)						
Flynn, William, New York, N. Y. Box for furs.....	377,482	Feb. 7	200	47	42	534
Flynn, William, assignor of one-half to T. A. Jackson, New York, N. Y. Stone-sawing machine.....	386,532	July 24	1783	471	44	373
Flynt, Henry, assignor of one-half to C. E. Cooke, Kansas City, Mo. Vapor or gas stove.....	377,850	Feb. 11	774	198	42	657
Flynt, Henry, assignor of one-half to C. E. Cooke, Kansas City, Mo. Oven for vapor-stoves.....	378,301	Feb. 21	1445	377	42	792
Foans, Andrew F., New York, N. Y. Sign.....	378,198	Feb. 21	1281	338	42	763
Fockler, Charles, East Dubuque, Ill. Grain-drill.....	386,394	July 17	1551	{ 411 412 }	44	317
Fodrea, Levi P., Westfield, Ind. Slate-pencil holder.....	378,783	Feb. 28	2123	564	42	935
Foellmer, Fritz, assignor of one-third to J. Ruessing, West Point, Nebr. Room-ventilator.....	376,770	Jan. 24	1523	401	42	314
Foerster, Adam. (See Fox and Foerster.)						
Foerster, Albin, Ronneburg, Saxony, Germany. Apparatus for mechanically playing on drums.....	393,551	Nov. 27	2024	530	45	1014
Foerster, Emanuel, New York, N. Y. Stone-cutting machine.....	392,601	Nov. 13	629	158	45	721
Fogarty, James H., New York, N. Y., and F. M. Wheeler, Montclair, N. J. Steam-actuated valve.....	380,882	Apr. 10	873	235	43	179
Fogg, Charles F., et al. (See Farmer, Julius M., assignor.)						
Fogle, George W. (See Leech and Fogle.)						
Foglesong, Washington, Dayton, Ohio. Horse-collar hammer.....	391,133	Oct. 16	1341	{ 357 358 }	45	273
Foglesong, Washington, Dayton, Ohio. Collar-stuffing machine.....	391,134	Oct. 16	1343	358	45	273
Foglesong, Washington, Dayton, Ohio. Leather-rounding machine.....	392,113	Oct. 30	2747	747	45	569
Folliu, Ernest V., Salt Lake City, Utah Ter. Book-cover.....	382,148	May 1	398	104	43	587
Foland, Charles G., et al., administrators. (See Sherman, Wardell B.)						
Foland, Marion E., et al., administrators. (See Sherman, Wardell B.)						
Foley, James S., Chicago, Ill., assignor of one-half to J. Ruse, Toronto, Canada. Match magazine and lighter.....	390,467	Oct. 2	383	98	45	79
Foley, James S., Chicago, Ill., assignor of one-half to J. Ruse, Toronto, Ontario, Canada. Match magazine and lighter.....	390,468	Oct. 2	385	98	45	79
Foley, Thomas, assignor, by mesne assignments, to W. Webster, Philadelphia, Pa. Apparatus for purifying water.....	387,406	Aug. 7	305	78	41	631
Foley, Timothy M. (See Gill and Foley.)						
Foley, Walter F., Brockton, Mass., and C. F. Wilbur, Birmingham, Conn. Drum-tug.....	390,469	Oct. 2	386	99	45	80



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Folger, Harry S., Springfield, Ohio. Garment-stretcher.....	387,319	Aug. 7	222	58	44	614
Folkers, Sarah B. (See Wolff, Justus, assignor.)						
Folks, Thomas, Washington, D. C. Swing.....	390,851	Oct. 9	912	241	45	185
Follett, Charles, <i>et al.</i> (See Dowling, Robert H., assignor.)						
Follett, Charles H., <i>et al.</i> (See Dowling, Robert H., assignor.)						
Follett, Edward P. (See Kelly and Follett.)						
Follett, Edward P., Rochester, assignor to D. W. Edgecomb, Whitestone, N. Y. Chart for drafting sleeves of garments.....	389,376	Sept. 11	873	225	44	1247
Follett, Edward P., Rochester, assignor to D. W. Edgecomb, Whitestone, N. Y. Chart for drafting garments.....	389,377	Sept. 11	874	225	44	1247
Follett, John F., Central Falls, R. I. Yarn-guiding device for spinning-machines.....	386,975	July 31	2447	643	44	508
Folsom, Charles, New York, N. Y. Sample-fastener.....	381,709	Apr. 24	2193	573	43	462
Folsom, John G., Winchendon, Mass. Metal-hardening device.....	385,347	July 3	12	4	44	5
Folsom, William B., assignor of one-half to W. H. Folsom, Salt Lake City, Utah Ter. Thill-coupling.....	387,972	Aug. 14	1175	319	44	806
Folsom, William H. (See Folsom, William B., assignor.)						
Foltz, Irving E., Rockford, Ill. Photograph-mount.....	386,874	July 31	2299	604	44	478
Fontaine, Eugene, Auburndale, Ohio. Wire-nail machine.....	390,015	Sept. 25	1842	488	44	1447
Foos, John. (See Jennings, Benjamin F. K., assignor.)						
Foos, John. (See Way, Frank K., assignor.)						
Foose, George C., Dalton, N. Y. Land-roller.....	377,066	Jan. 31	1951	512	42	403
Foot, James H., Cincinnati, Ohio. Spring-whiffletree.....	377,025	Jan. 31	1891	497	42	391
Foot, James H., Cincinnati, Ohio. Spring-whiffletree.....	377,026	Jan. 31	1892	497	42	391
Foot, James H., Cincinnati, Ohio. Spring whiffletree-book.....	391,601	Oct. 23	1984	535	45	408
Foot, Theodore M., assignor of fifty-one one-hundredths to S. T. Holmes, Boston, Mass. Galvanic battery.....	377,745	Feb. 14	598	154	42	622
Foot, Theodore M., assignor to W. Lumb, trustee, Boston, Mass. Clutch.....	378,088	Feb. 21	1115	291	42	732
Foot, Theodore M., assignor to W. Lumb, trustee, Boston, Mass. Speed-regulator.....	383,452	May 29	2347	625	43	995
Footitt, Charles M., Marlow, county of Bucks, England. Lemon-squeezer.....	388,352	Aug. 21	1788	478	44	931
Foran, John W., St. Johns, Newfoundland. Cleat.....	391,526	Oct. 23	1883	506	45	387
Forbes, Edwin, Flatbush, N. Y. Rubber overshoe.....	378,245	Feb. 21	1359	358	42	777
Forbes, George, London, England. Measuring electricity.....	387,505	Aug. 7	456	120	44	662
Forbes, John, Halifax, Nova Scotia, Canada. Skate.....	391,135	Oct. 16	1344	359	45	274
Forbes, John, Halifax, Nova Scotia, Canada. Skate.....	391,136	Oct. 16	1347	359	45	274
Forbes, Martin W. (See Judy and Forbes.)						
Forbes, Samuel D., Wilmington, Del. Carriage-wheel.....	378,302	Feb. 21	1447	377	42	792
Forbes, Walter T. (See Hatfield, George W., assignor.)						
Forbes, Walter T. (See Leder, George, assignor.)						
Forbes, William H. (See Osborne, John W., assignor.)						
Forbriger, Bertha E., Cincinnati, Ohio. Detachable backing frame or case for drawing-tablets.....	391,602	Oct. 23	1986	535	45	409
Force, William A. (See Sawyer and Force.)						
Ford, Frederick A., New York, N. Y. Mold for measuring and partially shaping cigar-fillers.....	376,147	Jan. 10	601	160	42	126
Ford, Frederick A., New York, N. Y. Box for cigars.....	377,245	Jan. 31	2205	581	42	453
Ford, George, New Harmony, Ind. Gate.....	381,063	Apr. 10	1156	308	43	232
Ford, George A. (See Hussey, Charles R., assignor.)						
Ford, George A., Cleveland, Ohio. Clamp for supporting tackle-block straps while riveting the same.....	391,409	Oct. 23	1725	459	45	354
Ford, George A., and C. R. Hussey, Cleveland, Ohio; said Hussey assignor to said Ford. Flauging-machine.....	377,999	Feb. 14	994	259	42	701
Ford, George W., Elba, N. Y. Thill-coupling.....	379,456	Mar. 13	861	232	42	1136
Ford, Harry, Lyndon, Kans. Mechanical photographic bath.....	385,607	July 3	413	105	44	81
Ford, Joseph, and A. H. Delbridge, Flint, Mich. Egg-preserver.....	378,303	Feb. 21	1448	377	42	793
Ford, Robert, Sr., Earlring, Iowa. Wagon-brake.....	380,679	Apr. 10	568	156	43	123
Ford, Thomas. (See Bentley and Ford.)						
Ford, Thomas P., assignor to American Elevator Company, London, England. Hydraulic lift.....	387,407	Aug. 7	306	79	44	631
Ford, William R., assignor to C. and J. B. Walker, Allegheny City, Pa. Piston-rod packing.....	379,272	Mar. 13	589	163	42	1083
Ford, William W., Longview, Tex. Voting-machine.....	376,980	Jan. 24	1820	478	42	370
Foreband, Sullivan. (See Eyc, Martin, assignor.)						
Forel, Sylvestre, Mulhouse, Alsace, Germany. Obtaining oxyazoic coloring-matter from tetrazo diphenyl and diolyl.....	386,192	July 17	1258	.....	44	262
Foreman, L. D. (See Silkwood, Thomas P., assignor.)						
Foreman, Samuel E., Randolph, Kans. Cover for strainer-pails.....	380,313	Apr. 3	16	4	43	6
Foreshaw, Nathan, St. Louis, Mo. Sad-iron heater.....	381,468	Apr. 17	1761	471	43	359
Forg, Peter, Somerville, Mass. Bedstead-fastener.....	385,260	June 26	2135	544	43	1559
Forker, William, Glenwood Springs, Colo. Game.....	387,220	Aug. 7	33	7, 8	44	578
Forman, Harvey W. (See Ellis, Adelbert L., assignor.)						
Forman, Sands, Gold Hill, Nev. Bicycle.....	394,067	Dec. 4	486	120	45	1164
Forman, Sands, Gold Hill, Nev. Wheel.....	394,068	Dec. 4	487	130	45	1165
Fornachon, Edmund, La Mothe, near Yverdon, Switzerland. Musical box.....	382,080	May 1	309	81	43	570
Forrest, William W., assignor of one-half to S. B. Colladay and G. S. Hensel, Philadelphia, Pa. Grate-bar.....	375,870	Jan. 3	187	52	42	41
Forry, Charles E. (See Linsley and Forry.)						
Forster, Francis B. (See Riedel, Gustav A., assignor.)						
Forster, Frank N., Buffalo, N. Y. Paper box.....	391,955	Oct. 30	2497	676	45	521
Forster, William T., Kansas City, Mo. Air-compressor.....	375,929	Jan. 3	276	75	42	58
Forster, William T., Kansas City, Mo. Air-compressor.....	376,589	Jan. 17	1219	322	42	250
Forster, William T., Erie, Pa. Air-compressor.....	381,556	June 12	779	203	43	1276
Forsyth, Henry C., <i>et al.</i> (See Brown, Theodore H., assignor.)						
Forsyth, Henry H., Pittsburg, Pa. Axial rolling.....	379,386	Mar. 13	756	205	42	1115
Forsyth, Henry H., Pittsburg, Pa. Die for forging.....	384,751	June 19	1359	355	43	1396
Forsyth, James B. (See Nelson, Anthony, assignor.)						
Forsyth, James B., Boston, Mass. Belting.....	385,703	July 10	556	145	44	116
Forsyth, John H., Fargo, Dak. Ter. Measuring-bagger.....	381,122	Apr. 17	1264	338	43	263
Forsyth, Paul T., Memphis, Tenn. Garment.....	390,765	Oct. 9	789	210	45	163
Forsyth, R. Clarke, Chicago, Ill. Elevated suspension-railway.....	386,120	July 17	1160	308	44	241
Forsyth, Robert, and J. A. Potter, Chicago, Ill. Valve mechanism for blowing engines, pumps, and similar apparatus.....	378,438	Feb. 28	1652	433	42	841
Forsyth, William S., Owego, N. Y. Vehicle.....	390,661	Oct. 9	644	172	45	136

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Fort Wayne Electric Light Company. (See Slattery, Marmaduke M. M., assignor.)						
Fort Worth Iron Works Company. (See Moore, John F., assignor.)						
Fortin, Charles L., assignor of two-thirds to F. H. Gaylord and W. D. Travis, Whitehall, N. Y. Wringing attachment for mops	376,711	Jan. 17	1421	374	42	286
Fortin, Charles L., assignor of two-thirds to F. H. Gaylord and W. D. Travis, Whitehall, N. Y. Convertible mop and brush holder	394,069	Dec. 4	488	130	45	1165
Forston, Wilton G. (See Hughes, Thomas W., assignor.)						
Forward, Chauncey B., Cleveland, Ohio, assignor to J. T. Noye Manufacturing Company, Buffalo, N. Y. Automatic grain-scale	377,606	Feb. 7	384	97, 98	42	568
Forward, Mary A., Kalamazoo, Mich. Rein-holder	389,959	Sept. 25	1763	467	44	1432
Foss, Oscar J., Minneapolis, Minn. Bundle-carrier for harvesters	383,718	May 29	2750	724	43	1076
Foster, Abraham G. W., Whitesburg, Ga. Car-coupling	390,766	Oct. 9	791	210	45	163
Foster, Charles H., Omaha, Nebr. Harness-rossette	393,893	Dec. 4	239	64	45	1118
Foster, Charles S., Pawtucket, R. I. Yarn-reel	376,590	Jan. 17	1234	322	42	250
Foster & Co., John. (See Hall, William D., assignor.)						
Foster, Fannie E., Milwaukee, Wis. Kitchen-cabinet	393,301	Nov. 20	1638	432	45	928
Foster, Hickman E., Decatur, Ill. Boat-detaching apparatus	385,608	July 3	416	106	44	81
Foster, Horace, Sr., Knoxville, Tenn. Flour sifter and sifter	390,219	Oct. 2	40	11	45	11
Foster, Horatio A., Boston, Mass. Guard-rail and insulator for electric railways	384,901	June 19	1585	412	43	1438
Foster, Isaac N., Pembroke, Mass. Transplanting-pot	378,047	Feb. 14	1057	276	42	713
Foster, J. Marshall. (See Babcock, Charles, assignor.)						
Foster, James G. (See Ruckle and Wolters, assignors)						
Foster, John M., New York, N. Y. Pressure-regulating valve and governor	391,786	Oct. 30	2243	610	45	470
Foster, John S. (See Wilson and Foster.)						
Foster, John W., Washington, D. C. Embroidering attachment for sewing-machines	386,193	July 17	1259	336	44	262
Foster, Joseph H., and J. H. Kinbro, Georgetown, Tex. Plow	389,067	Sept. 4	379	99	44	1145
Foster, Lucian M., assignor to S. Foster, Brunswick, N. Y. Railway-gate	380,319	Apr. 3	17	4, 5	43	6
Foster, Merriam & Company. (See Merriam, Nelson C., assignor.)						
Foster, Michael A., St. Louis, Mo. Carburetor	377,607	Feb. 7	386	98	42	569
Foster, Oscar S., Utica, N. Y. Machine for making wire springs	388,658	Aug. 28	2228	598	44	1021
Foster, Oscar S., Utica, N. Y. Attachment for bed-bottoms	391,138	Oct. 16	1351	360	45	275
Foster, Oscar S. and W. S., Utica, N. Y. Spring-bed	391,137	Oct. 16	1349	360	45	275
Foster, Robert, and B. J. Kennedy, Troy, N. Y. Brush	378,784	Feb. 28	2133	564	42	935
Foster, Samuel. (See Foster, Lucian M., assignor.)						
Foster, William S. (See Foster, Oscar S., and W. S.)						
Fouillet-Chevance, Marie H., Neauphle le Château, Seine and Oise, France. Braiding-machine	395,270	Dec. 25	2404	616 617	45	1560
Foulon, Peter J., New York, assignor of one-half to G. B. Constantine, Brooklyn, N. Y. Argand lamp-burner	389,068	Sept. 4	380	100	44	1145
Fountain, W. F. (See Beyerle, Joseph, assignor.)						
Foust, Eli, Columbus, Ohio. Lifting-jack	386,533	July 24	1784	471	41	373
Foust, George B. M., Pittsburg, Pa. Lock	383,638	May 29	2636	685	43	1051
Fouts, David W., Chicago, Ill. Hasp-lock	395,221	Dec. 25	2339	598	45	1546
Fouts, John B. (See Hoover, Ellis A., assignor.)						
Foutzer, Robert B., Butler, Pa. Wheelbarrow	392,150	Oct. 30	2807	762	45	581
Fowle Alonzo. (See Boynton, Frederick H., assignor.)						
Fowle, George D., Philadelphia, Pa. Interlocking switch and signal	389,558	Sept. 18	1149	301 302	44	1305
Fowle, William B., Newton, Mass. Calendar	389,212	Sept. 11	625	160	44	1198
Fowler, Alfred B., Exeter, N. H., assignor to Rockingham Machine Company. Burnishing-machine	377,826	Feb. 14	743	188 189	42	651
Fowler, Alfred B., Exeter, N. H., assignor to O. A. Miller, Brockton, Mass. Boot-treating machine	393,003	Nov. 20	1221	317	45	845
Fowler, Alfred B., and G. E. Warren, Exeter, N. H., assignors to Rockingham Machine Company, of New Hampshire. Burnishing or trimming tool	384,902	June 19	1585	412	43	1438
Fowler, Charles, East Springfield, N. Y. Sash-balance	390,767	Oct. 9	792	211	45	164
Fowler, Charles M., Salem, Mass. Fire-escape	394,109	Dec. 4	544	146	45	1174
Fowler, Forman F., and M. V. B. Walcott, Wolcott, N. Y. Coiled spring	380,651	Apr. 3	513	143	43	104
Fowler, Frank G., Bridgeport, Conn. Steam-boiler	377,099	Jan. 31	2005	525	42	413
Fowler, George H., Taughanuck Falls, N. Y. Hay-carrier	384,968	June 26	1678	436	43	1465
Fowler, Hervey W., Chicago, Ill. Machine for rolling car-wheels	394,565	Dec. 18	1251	328	45	1332
Fowler, John. (See Wood and Fowler.)						
Fowler, John W. (See Hutton, John, assignor.)						
Fowler, John W., and D. F. Lewis, Brooklyn, N. Y. Fare-register	391,702	Oct. 23	2122	573	45	436
Fowler, Joseph. (See Morrison, John R., assignor.)						
Fowler, Joseph C., and E. A. Henkle, Washington, D. C. Web turning and reversing device for printing-machines	383,568	May 29	2532	668	43	1029
Fowler, Joseph E., Mack's Creek, Mo. Wagon-standard	382,963	May 15	1600	418	43	838
Fowler William C. and W. G. Schacter, St. Louis, Mo. Baker's oven	380,561	Apr. 3	387	110 111	43	79
Fowles, Warren, Mexico, Mo. Washing-machine	382,149	May 1	399	104	43	587
Fox, Adam, deceased; W. G. Henderson, Washington, D. C., administrator. Down quilt	390,300	Oct. 2	137	39	45	31
Fox, Charles E., Mendville, Miss. Car-coupling	387,062	July 31	2562	674	44	530
Fox, Clarence W., Saugus, Mass. Glass-holder	378,361	Feb. 21	1528	400	42	809
Fox & Co., Samuel. (See Jeffery, Henry, assignor.)						
Fox, Edward, assignor of one-half to P. Reilly, Brooklyn, N. Y. Ventilating-wheel	383,217	May 22	1999	524	43	925
Fox, Frank A., New York, N. Y. Car-buffer	390,958	Oct. 9	1067	281 282	45	215
Fox, Frank A., New York, assignor to C. E. Bishop, Brooklyn, N. Y., and R. S. Beers, Bridgeport, Conn. Car-coupling	384,312	June 12	701	187	43	1264
Fox, Fred H. (See Anon and Fox.)						
Fox, George J., and A. Foerster, Lansing, Mich. Fancel-socket	391,891	Oct. 30	2401	650	45	502
Fox, Hugh L. (See Tolle, Morris, assignor.)						
Fox, Ivan, Philadelphia, Pa. Adjusting attachment for opera and other glasses	376,434	Jan. 17	1006	264	42	208
Fox, James, Trenton, N. J. Detonating railway-signal	377,506	Aug. 7	457	120	44	662
Fox, James S., Detroit, Mich. Railway-spike	385,107	Aug. 26	1906	486	43	1512
Fox, John, Brooklyn, N. Y. Can	375,992	Jan. 3	365	98	42	74
Fox, John B., Milwaukee, Wis. Carriage-bow	383,876	June 5	36	12	43	1128
Fox, Levi M., Albion, Iowa. Car-coupling	394,165	Dec. 11	627	168	45	1301
Fox, Philo L., Bridgeport, Conn. Combined try-square and device for laying out angles	390,470	Oct. 2	387	99	45	80
Fox, Samson, Leeds, county of York, England. Corrugating-machine	384,031	June 5	280	78, 79	43	1175

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page
Fox, Walter H. (See De Forest, Thomas B., assignor.)						
Fox, Washington I. (See Houghton and Fox.)						
Fox, William R. (See Berkey and Fox.)						
Fox, William R. (See Metzger, Jonathan R., assignor.)						
Fox, William R., Grand Rapids, Mich. Safety-valve.....	382,643	May 8	1159	298	43	741
Fox, William R., Grand Rapids, Mich. Dado-cutter.....	384,248	June 12	615	165 166	43	1248
Fox, William R., Grand Rapids, Mich. Miter-cutting machine.....	393,970	Dec. 4	346	93, 94	45	1137
Fox, William T., Rochester, N. Y., assignor to Crane Elevator Company, Chicago, Ill. Hydraulic elevator.....	381,436	June 12	888	231 232	43	1298
Frackelton, Susan S., Milwaukee, Wis. Apparatus for firing china.....	386,395	July 17	1553	412	41	317
Fraenkel, Louis. (See Weiss, Emil, assignor.)						
Fraenkel, Louis. (See Weiss and Fraenkel.)						
Fraenzel, Rudolph. (See Furl and Fraenzel.)						
Frager, Alphonse, and B. L. Michel, assignors to said Frager and Société Michel et Compagnie, Paris, France. Piston meter.....	391,956	Oct. 30	2498	676 677	45	521
Fram, Miller W., Lancaster, Pa. Padlock.....	3-5,799	July 10	694	151	44	143
Fraleigh, George B., San Francisco, Cal. Apparatus for electrical distribution.....	392,114	Oct. 30	2750	747	45	570
Fraleigh, Robert M., Forest Hill, Ind. Lifting-jack.....	3-2,964	May 15	1601	418	43	138
Frambach, Matt, Cherokee, Iowa. Draft-equalizer.....	3-8,353	Aug. 21	1788	478	44	931
Framme, Nathan T., Jamestown, Ohio. Railway-rail joint.....	381,259	June 12	617	166	43	1249
France, Joseph R., New York, N. Y. Manufacturing collars, cuffs, &c.....	392,794	Nov. 13	919	235	45	778
France, Joseph R., New York, N. Y. Manufacturing collars, cuffs, &c., from pyroxyline compounds.....	393,750	Dec. 4	23	.....	45	1077
France, Joseph R., New York, N. Y. Manufacture of pyroxyline compounds.....	393,751	Dec. 4	25	9	45	1077
France, Joseph R., New York, N. Y. Apparatus for the manufacture of celluloid and similar compounds.....	393,752	Dec. 4	29	9, 10	45	1077
France, Joseph R., New York, N. Y. Manufacturing articles from compounds of pyroxyline.....	393,753	Dec. 4	31	.....	45	1078
Francillon & Co., Ernest. (See Gerber, Henri, assignor.)						
Francis, Edmund, Austin, Ill. Counter-illuminating room.....	384,503	June 19	1586	413	43	1438
Francis, Estevan G. (See Lalonde, John B., assignor.)						
Frank, Abraham, Irwin, Pa. Combined cut-off and pressure-regulator.....	392,602	Nov. 13	632	159	45	732
Frank, Adolph, Charlottenburg, Prussia, Germany. Production of sulphite solutions.....	376,189	Jan. 10	658	.....	42	137
Frank, Adolph, Charlottenburg, Prussia, Germany. Production of sulphite solutions.....	376,190	Jan. 10	659	.....	42	137
Frank, Bertha. (See Vermeulen, John, assignor.)						
Frank, Fred. (See Garrett and Frank.)						
Frank, Joseph W., Emporia, Fla. Circular sawing machine.....	382,081	May 1	311	81	43	570
Frank, Lester, New York, N. Y. Axle for toy vehicles.....	383,452	July 3	179	48	44	36
Frank, William A., and T. Wicks, Pinal, Ariz. Ter. Ore-concentrator.....	388,659	Aug. 28	2233	5-8	44	1022
Frankel, Alexander C., assignor to J. Lagowitz, Newark, N. J. Traveling-bag.....	384,969	June 26	1610	436	43	1406
Frankenberg, Eduard, Hanover, Prussia, Germany. Embroidering attachment for sewing-machines.....	384,198	June 5	550	145	43	1224
Frankenberg, Frank H. (See Bauer and Frankenberg.)						
Frankenthaler Kesselschmiede, Velthuyssen & Co. (See Eltherling, Oskar, assignor.)						
Franklin, Edward A., Brenham, Tex., assignor to Bailey, Farrell & Company, Pittsburg, Pa. Cartridge-loading machine.....	389,505	Sept. 11	1661	282 283	44	1281
Franklin, John, Cincinnati, Ohio. Regenerative gas-lamp.....	387,157	July 31	2713	711	44	555
Franklin, Thomas W., Providence, R. I. Steak-perforator.....	376,080	Jan. 10	496	124	42	107
Franklin, William. (See Burgess and Franklin.)						
Franks, Gerald B., Peoria, Ill. Badge-holder.....	388,405	Aug. 28	1878	501	44	923
Frausze, Petter J., assignor of one-fourth to C. H. Gersch, Chicago, Ill. Railway traction-cable.....	377,023	Jan. 21	1888	457	42	361
Frantz, Eugene L., Sweet Valley, assignor of one-half to F. N. Ruggles, Luzerne County, Pa. Tree-protector.....	379,948	Mar. 27	1629	431	42	1361
Frantz, George S., Urbana, Ohio. Boot or shoe.....	384,437	June 12	891	232 233	43	1299
Frantzen, Paul, assignor to Wilson Brothers, Chicago, Ill. Buckle or clasp for suspenders, &c.....	3-9,500	Sept. 25	1703	478	41	1122
Frasch, Herman, London, Ontario, Canada. Refining Canadian and similar petroleum-oils.....	378,246	Feb. 21	1360	.....	42	778
Fraser, Donald, Milwaukee, Wis. Saw-guide.....	394,110	Dec. 4	545	146	45	1175
Fraser, Harriet L., New York, N. Y. Snow-plow.....	390,245	Dec. 11	920	242	45	1257
Frays, John S., Bridgeport, Conn. Brace-chuck.....	3-5,222	Dec. 25	2340	599	45	1546
Frazee, Jeremah, Casttown, Ohio. Fodder-binder.....	3-8,033	Aug. 21	1209	314 345	44	833
Frazee, William C. (See Reed and Frazee.)						
Frazier, J. J. (See Benham, Elijah B., assignor.)						
Frazier, William H., Mullan, Idaho Ter., assignor of one-half to J. Mullan, Washington, D. C. Cap for fuses.....	392,915	Nov. 13	1082	280	45	811
Frazier, George C., assignor to Hamilton, Lemmon, Arnold & Co., Allegheny City, Pa. Collin-handle.....	376,407	Jan. 10	955	250	42	161
Frazier, Schuyler, Natrona, Pa. Sulphuric-acid distributor.....	388,406	Aug. 28	1879	502	44	933
Frech, Johann, Schorndorf and E. Missel, Stuttgart, Württemberg, Germany. Hay-turning fork.....	389,069	Sept. 4	3-3	100	44	1146
Fréchette, Isidore, St. Hyacinthe, Quebec, Canada. Lasting-machine.....	393,503	Nov. 27	1945	509	45	966
Fred, Matts, Hancock, Mich. Water-proof paint.....	380,795	Apr. 10	744	.....	43	156
Frederick, Carl C., Lancaster, Mo. Hanging sheet-metal guttering to the eaves of houses.....	381,770	Apr. 24	2194	574	43	463
Frederick, Dora K., Marshallville, Ga. Bath-tub seat.....	393,226	Nov. 20	1530	401	45	907
Frederick, Edward P., St. Louis, Mo. Splicing wire.....	390,220	Oct. 2	40	11	45	11
Fredericks, Roland W. (See Burns, John, assignor.)						
Fredericks, William H., Johnstown, Pa. Apparatus for transferring pig-iron from its bed.....	380,625	Apr. 3	477	134	43	97
Free, Henry. (See Darling and Free.)						
Free, John W. (See Barber, Wiggins, and Soar, assignors.)						
Freedman, Hayman, assignor of one-half to N. Stein, Rochester, N. Y. Tacking-guide for sewing-machines.....	393,329	Nov. 20	1685	445	45	938
Freeland, Buckner F., Vistula, Ind. Block and order station-signal.....	390,221	Oct. 2	42	11	45	11
Freeland, Buckner F., Vistula, Ind. Time-register for railway-stations.....	390,222	Oct. 2	43	11	45	11
Freeland, James R., assignor of one-half to E. C. Bradley, Wellsville, N. Y. Singletree.....	383,351	May 22	2192	579	43	961
Freeland, John T. (See Trimble, William D., assignor.)						
Freeman, Augustus M. (See Kelly and Freeman.)						
Freeman, Edwin P. J., Roslyn, N. Y. Faucet.....	385,108	June 26	1906	486	43	1512
Freeman, Francis L., Warren, Ohio. Flask for casting horseshoes.....	389,559	Sept. 18	1151	302	44	1305
Freeman, George B., Middleville, Mich. Mop-wringer.....	382,965	May 15	1602	419	43	838

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Freeman, George P., <i>et al.</i> (See Atkinson, William W., assignor.)						
Freeman, James P., Lawrence, assignor to J. W. Brooks, trustee, Cambridge, Mass. Rotary cutter	388,549	Aug. 28	2069	557	41	991
Freeman, James J. (See Higgins, Frank, assignor.)						
Freeman, John A., Louisville, Colo. Artificial fuel	393,427	Nov. 27	1824		45	973
Freeman, Joseph K., Seney, Ga. Car-coupling	377,746	Feb. 14	599	154	42	622
Freeman, Josiah, assignor to L. E. Drake, Goodlettsville, Tenn. Hopple	376,872	Jan. 24	1678	438	42	342
Freeman, Mary. (See Freeman, Simon J., assignor.)						
Freeman, Michael. (See Freeman, Stephen and M.)						
Freeman, Scott C., and J. B. Soward, Nevada, Mo. Burglar-alarm	384,752	June 19	1361	355	43	1396
Freeman, Simon J., Rochester, N. Y., assignor to M. Freeman, Bradford, Pa. Car-coupling						
Freeman, Stephen, Racine, Wis. Cotton-chopper	390,471	Oct. 2	388	99	45	80
Freeman, Stephen and M., Racine, Wis. Seed-sower	381,516	June 12	1017	265	43	1322
Freeman, Stephen and M., Racine, Wis. Seed-sower	386,699	July 24	2002	529	41	415
Freeman, Warren P., New York, N. Y. Dynamo-electric machine and electric motor	393,636	Nov. 27	2151	562 } 563 }	45	1039
Freeman, William, Leicester, county of Leicester, England. Leather-cutting machine	377,298	Jan. 31	2284	601	42	467
Freeman, William C., Louisiana, Mo. Machine for making wooden trays, &c.	380,255	Mar. 27	2062	552	42	1387
Freeport Hardware Manufacturing Company. (See Colvin, Benoni, assignor.)						
Frees, Louis C. F., New York, N. Y. Necktie-fastener	376,396	July 17	1555	412	41	317
Frees, Louis C. F., New York, N. Y. Tip for scarf-neckbands	390,472	Oct. 2	389	99	45	80
Freese, John S., Brooklyn, N. Y. Button-hole sewing machine	382,466	May 8	890	227 } 228 }	43	687
Freese, Peter C., Cayuga, N. Y. Wire fence	383,804	May 29	2896	761	43	1103
Freethy, Samuel B., Surrey, Me. Combined tool	393,227	Nov. 20	1530	491	45	907
Frega, Giuseppe, Philadelphia, Pa. Tailor's square	392,263	Nov. 6	127	32	45	619
Freitag, Andreas, assignor to Naamloose Vennootschap Westler-Sniker-Rafinaderij, Amsterdam, Netherlands. Centrifugal machine	382,966	May 15	1603	419	43	838
Frenaux, Edward C., Mermentau, La. Ammunition-case	377,150	Jan. 31	2065	542 } 543 }	42	426
French, Aaron M., Beresford, Dak. Ter. Paint compound	394,566	Dec. 18	1251		45	1332
French, Charles H., <i>et al.</i> (See Talbot, Sylvanus J., assignor.)						
French, Charles H., Nashua, N. H. Bureau	394,847	Dec. 18	1728	448	45	1425
French, Charles H. H., Hollister, Cal. Pipe-wrench	395,046	Dec. 25	2040	527	45	193
French, Erasmus S., Winchendon, assignor to G. Waite, Templeton, Mass. Chair	387,586	Aug. 7	599	156	44	687
French, George B., Fremont, Nebr. Machine for softening and bending the horns of cattle	383,519	May 29	2458	651	43	1016
French, Gilbert B., Lynn, Mass. Sash-fastener	389,213	Sept. 11	626	160	44	1198
French, Gustus W., Lynn, Mass. Boot or shoe	392,264	Nov. 6	128	32	45	619
French, Horatio B., Wills Point, Tex. Grain-adjuster	380,198	Mar. 27	1988	532	42	1371
French, James. (See Uhrig, John W. M., assignor.)						
French, James C., Brooklyn, N. Y. Device for operating trap-doors	394,259	Dec. 11	780	207	45	1228
French, James C., Brooklyn, N. Y. Pavement and floor light	394,260	Dec. 11	781	207	45	1229
French, Josiah F., Philadelphia, Pa. Can-opener	389,293	Sept. 11	767	195	44	1226
French, Josiah F., Philadelphia, Pa. Seesaw	389,961	Sept. 25	1765	468	44	1432
French, Josiah F., Philadelphia, Pa. File-cutting machine	390,075	Sept. 25	1934	510 } 511 } 512 } 513 } 514 } 515 } 516 } 517 }	44	1466
French, Justus W., Lynn, Mass. Manufacturing boots or shoes	379,640	Mar. 20	1144	303	42	1197
French, Nahum W., North Haverhill, N. H. Fence	381,496	Apr. 17	1803	479	41	368
French, Nahum W., North Haverhill, N. H. Wire-fence clasp and wedge	392,506	Nov. 6	484	121	45	687
French, Stephen H., and W. J. Malthy, Baird, Tex. Tug	385,855	July 10	782	203	41	159
French, Zachary T., and W. C. Meyer, Boston, Mass. Leather-gouging machine	381,994	May 1	159	40, 41	43	543
French, Zachary T., and W. C. Meyer, Boston, Mass. Machine for cutting and embossing button-holes	381,995	May 1	163	42 } 43 }	43	544
Frenier, John H., assignor of one-half to L. Leblanc, Rutland, Vt. Sand and water distributor for stone-sawing machines	384,615	June 19	1160	307	43	1357
Frenier, Joseph, assignor of one-half to E. W. Jewell, Cincinnati, Ohio. Refrigerator	379,543	Mar. 13	977	263	42	1158
Frenier, Joseph F., assignor of one-half to E. W. Jewell, Cincinnati, Ohio. Refrigerator	389,143	Sept. 4	519	132	44	1168
Frenot, Louis D., Newark, N. J. Sleeve-button	378,956	Mar. 6	123	34	42	992
Freschl, Carl, Milwaukee, Wis. Knitting-machine needle	387,507	Aug. 7	459	120	44	663
Fretz, Emil, and J. Waespi, Dallas, Tex. Filter	392,323	Nov. 6	212	55	45	635
Frey, Franklin, assignor, by mesne assignments, of two-thirds to J. O. Hunsacker and C. M. Swain, Quincy, Ill. Baling-press	387,508	Aug. 7	460	121	44	663
Frey, Franklin, and H. W. Schwarzburg, Quincy, Ill. Baling-press	378,831	Feb. 28	2226	592 } 593 }	42	953
Frey, Frederick E., Bucyrus, Ohio. Shaft and pulley coupling	390,583	Oct. 2	511	141	45	109
Frey, Frederick E., Bucyrus, Ohio. Brick and tile machine	391,697	Oct. 23	2107	571	45	434
Frey, Frederick E., assignor to Frey, Sheckler & Hoover, Bucyrus, Ohio. Brick and tile machine						
Frey, Henry B., Minneapolis, Minn. Device for making sled-roads	391,698	Oct. 23	2112	572	45	435
Frey, John C., assignor of one-half to G. A. Miller, Rochester, N. Y. Adjustable sled-runner	388,407	Aug. 28	1889	502	41	953
Frey, John W., Baltimore, Md. Fire-escape ladder	389,214	Sept. 11	627	160	44	1198
Frey, Sheckler & Hoover. (See Frey, Frederick E., assignor.)	382,150	May 1	400	105	43	587
Frey, Sheckler & Hoover. (See Niedergesass, Robert, assignor.)						
Freyer, G. A., <i>et al.</i> (See Gilbert, George H., assignor.)						
Freygang, Robert, Eutritzsch, near Leipsic, Saxony, Germany. Clay crusher and drier	387,158	July 31	2711	711 } 712 }	44	555
Freytag, Anton, Flatonia, Tex. Baling-press	394,261	Dec. 11	782	207	45	1229
Frier, James L., Pascagoula, Miss. Rotary engine	391,892	Oct. 30	2165	674	45	592
Frick, Frederick A., Rochester, N. Y. Heater for curling-irons	392,151	Oct. 30	2808	762	45	581
Friclion Car Brake Company. (See Campbell, George P., assignor.)						
Fridy, Sam M. (See Slaughter, David, assignor.)						
Fried, Hermann, Cannstadt, Württemberg, Germany. Suspender-fastening	381,831	Apr. 21	2301	598	43	482
Friedlberger, Joseph, Landsberg-on-the-Lech, Bavaria, Germany. Safety-pin for brooches	376,194	July 17	1261	336	41	262
Friede, Samuel M., assignor of one-half to J. D. Abeles and L. Goldman, St. Louis, Mo. Street and station indicator	383,392	May 22	2253	600	43	971

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Friede, Samuel M., assignor of one-half to J. D. Abeles and L. Goldman, St. Louis, Mo. Automatic street or station indicator	391,699	Oct. 23	2114	572	45	435
Friede, Samuel M., assignor of one-half to J. D. Abeles and L. Goldman, St. Louis, Mo. Automatic street and station indicator	391,700	Oct. 23	2118	572 573	45	435
Friedgen, Frederick. (See Behr, Hermann, assignor.)						
Friedlaender, Paul, and B. Fries, assignors to K. Ochler, Offenbach-on-the-Main, Germany.						
Production of orange azo dye-stuffs	375,930	Jan. 3	279	-----	42	58
Friedlander, Jacob, Memphis, Tenn. Water-heating mantle	395,047	Dec. 25	2041	527	45	1493
Friedrich, Jacob M. (See Peckham, William C., assignor.)						
Friedmann, Joseph, San Francisco, Cal. Padlock	389,215	Sept. 11	628	160	44	1198
Friedrich, Albert B., Livingston, Wis. Harrow	389,216	Sept. 11	629	161	44	1198
Friegel, Frederick M., assignor of one-half to J. H. Garver, Sugar Creek, Ind. Trace-carrier	393,330	Nov. 20	1686	445	45	938
Friend, John P., assignor of one-half to B. F. Thomas, Louisa, Ky. Hand-barrow	385,609	July 3	418	106	44	82
Friend, R. W. (See Haskins, William B., assignor.)						
Friend, Samuel, assignor of three-fourths to J. K. Warren, B. K. Durfee, and D. H. Heilman, Decatur, Ill. Treating clay	385,750	July 10	628	-----	44	130
Friend, Samuel, assignor of three-fourths to J. K. Warren, B. K. Durfee, and D. H. Heilman, Decatur, Ill. Churn	391,787	Oct. 30	2244	610 611	45	470
Friend, William, New York, N. Y. Rubber eraser	376,081	Jan. 10	497	135	42	107
Fries, Jacob, Reading, Pa. House-warming apparatus and stove	383,119	May 22	1866	487	43	899
Fries, Jacob, Reading, Pa. Time mechanism for dampers	393,063	Nov. 20	1302	339	45	861
Frink, William B., et al. (See Shaw, Edwin H., assignor.)						
Frisbee, Gideon, New York, N. Y. Mill for crushing or grinding quartz	378,879	Mar. 6	33	9	42	973
Frisbie, George C., Cease's Mills, Pa. Thill-compling	391,701	Oct. 23	2121	573	45	436
Frisbie, Henry B., and R. J. McAuley, Cleveland, Ohio. Heater for railway-cars	387,558	Aug. 7	550	142	44	678
Frisbie, Henry R., assignor of one-half to Detroit Patent Brush Company, Detroit, Mich. Scratch-brush	376,800	Jan. 24	1570	412	42	323
Frisbie, Henry R., Detroit, Mich., assignor to W. Barnett, Mansfield, Ohio. Spindle-connection for valves	376,981	Jan. 24	1822	479	42	370
Frisbie, William L., Syracuse, N. Y., assignor of one-half to J. C. Kenyon, Springfield, Mass. Lawn-mower	379,949	Mar. 27	1630	434	42	1301
Frischeis, Fabian S., Lititz, Pa. Automatic car-link	383,453	May 29	2348	625	43	995
Frischer, Maurice, 94 Highbury, New Park, county of Middlesex, England. Biscuit	392,507	Nov. 6	485	-----	45	687
Frischmuth, William, assignor to W. H. Gaw, Philadelphia, Pa. Galvanic cell	380,430	Apr. 3	177	49	43	36
Fritch, Philip. (See Baker and Fritch.)						
Fritch, Sylvester, Beatrice, Nebr. Refrigerator	377,246	Jan. 31	2206	582	42	453
Fritsche, Waldemar, Berlin, Germany. Dynamo-electric machine	386,775	July 24	2114	554 555 556	44	436
Fritts, Charles E., New York, N. Y. Production, transmission, and distribution of electric currents	383,520	May 29	2160	651 652	43	1016
Fritts, William H., Plano, Ill. Draft-equalizer	377,024	Jan. 31	1889	497	42	391
Fritz, George J., St. Louis, Mo. Ironing-machine	388,660	Aug. 28	2231	509	44	1022
Fritz, William H., and W. H. George, Dayton, Ohio. Sash-holder	387,509	Aug. 7	462	121	44	663
Froedman, Francis H., Dublin, county of Dublin, Ireland. Manufacturing supports for photographic emulsion	386,006	July 10	988	-----	44	202
Froling, Hermann. (See Karges, Robert, assignor.)						
Fronheiser, James J., Johnstown, Pa., assignor to Cambria Iron Company, of Pennsylvania. Apparatus for introducing sand or other powdered or granulated substances into Bessemer converters	387,952	Aug. 14	1149	309 310	44	801
Frost, Abel H., et al. (See Granger, Alvan P., assignor.)						
Frost, Daniel C., Springfield, Mass. Halter	381,123	Apr. 17	1265	338	43	263
Frost, Edward J., Philadelphia, Pa. Device for regulating the quality of carbureted vapor or gas	381,619	Apr. 24	1988	522	43	422
Frost, George. (See Gemmill, Robert, assignor.)						
Frost, George, et al. (See Pickhardt, Emile, assignor.)						
Frost, George, et al. (See Preston, Charles A., assignor.)						
Frost, George, et al. (See Warren, Andrew, assignor.) (Reissue.)						
Frost, George A., et al. (See Pickhardt, Emile, assignor.)						
Frost, George A., et al. (See Preston, Charles A., assignor.)						
Frost, George A., et al. (See Warren, Andrew, assignor.) (Reissue.)						
Frost, John B., assignor of one-half to C. E. Sheldon, Akron, Ohio. Riveting-machine	384,199	June 5	532	145 146	43	1224
Frost, Oscar F., Monmouth, Me., assignor of one-half to A. A. Fillebrown, Ayer, Mass. Detachable shelf and heat regulator for ovens	381,229	Apr. 17	1404	375	43	289
Frost, Walter E., Lewiston, Me., assignor to Mousam Manufacturing Company, of Maine. Machine for stripping leather-board	384,032	June 5	282	79, 80	43	1175
Frothingham, Charles F. (See Smith, Eugene C., assignor.)						
Frothingham, James K., et al. (See D'Lauroy, Alfred, assignor.)						
Frushour, William A., Urbana, Ind. Fence	378,832	Feb. 28	2229	593	42	954
Fry, Benjamin, assignor to Art Novelty Company, (limited.) Erie, Pa. Combination-lock	380,028	Mar. 27	1753	469	42	1324
Fry, Frederick D., assignor of one-half to T. H. Benedict, Danbury, Conn. Hat-wire	385,410	July 3	109	31	44	24
Fry, Frederick D., assignor to H. W. and T. H. Benedict, Danbury, Conn. Last for over-shoes	392,550	Nov. 6	547	138	45	699
Fry, Frederick D., and H. W. Benedict, assignors to H. W. and T. H. Benedict, Danbury, Conn. Overshoe	395,271	Dec. 25	2408	617	45	1560
Fry, George, Memphis, Mo. Tank for watering stock	386,242	July 17	1352	356	44	278
Fry, Isaac H., assignor of one-half to E. J. Whittlesey, Tower City, Dak. Ter. Heating-drum	387,715	Aug. 14	793	203	44	730
Fry, Joseph H., Washington, D. C. Plow	382,297	May 8	626	160	43	639
Fry, Reginald. (See Wright, Morris S., assignor.)						
Fry, William A., Washington, D. C. Draft-equalizer for vehicles	379,215	Mar. 13	516	145	42	1069
Fryer, Richard, assignor to A. G. Jennings & Sons, Brooklyn, N. Y. Loofer for sewing-machines	378,165	Feb. 21	1235	325	42	754
Fuchs, Charles H., Sandusky, Ohio. Machine for the manufacture of chalk, crayons, &c.	383,174	May 22	1937	508	43	913
Fuchs, Henry. (See Feustel, Friedrich, assignor.)						
Fuel Gas and Electric Engineering Company. (See Dutton, Chauncey N., assignor.)						
Fuel Gas and Electric Engineering Company. (See Wellman and Goetz, assignors.)						
Fuel Gas and Electric Engineering Company. (See Zimmermann, William F., assignor.)						
Fugett, Joseph M., Baldwinville, N. Y. Road-cart	393,971	Dec. 4	348	94	45	1138
Fulkerson, Charles M., Cleveland, Ohio. Apparatus for carbureting air	394,480	Dec. 11	1099	255 286	45	1289



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Fuller, Arthur, <i>et al.</i> (See Coy, Frederick W., assignor.)						
Fuller, Arthur, trustee. (See Gordon, William, assignor.)						
Fuller, Charles, Ludell, Kans. Vehicle-brake.	391,741	Oct. 23	2172	587	45	446
Fuller, Francis E. (See Ellery and Vreazie, assignors.)						
Fuller, Frederick L., Norwich, Conn. Device for registering and recording the time worked by employes and automatically computing their wages.	379,865	Mar. 20	1507	397	42	1263
Fuller, George E., Savannah, Ill. Merchant's display-frame.	385,411	July 3	111	31	44	24
Fuller, George P., Minneapolis, Minn. Nut-lock.	376,774	Jan. 24	1525	401	42	315
Fuller, Henry W. and W., Seneca, Kans. Call-wearer.	380,726	Apr. 10	744	204	43	156
Fuller, James B. (See Gurney, Charles H., assignor.)						
Fuller, John W. (See Arneah, John G. E., assignor.)						
Fuller & Johnson Manufacturing Company. (See Starks, Nils O., assignor.)						
Fuller, Levi K., assignor to Estey Organ Company, Brattleborough, Vt. Reed-organ action.	389,628	Sept. 18	1375	360 361	44	1346
Fuller, Middleton G., Ten Mile Hill, S. C. Locomotive-boiler.	387,780	Aug. 11	875	225	44	747
Fuller, Richard W., Little River, Kans. Fence.	393,501	Nov. 27	1947	509	45	996
Fuller, Samuel W., Waterville, Me. Combined spool, needle, and thimble holder.	389,560	Sept. 18	1153	302	44	1305
Fuller, Walter. (See Fuller, Henry W. and W.)						
Fuller & Warren Company. (See Wolfe, Gordon G., assignor.)						
Fuller, Willard H., Passaic, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Photographic-plate holder.	376,983	Jan. 24	1821	479	42	371
Fuller, Willard H., Passaic, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Magnesium light.	386,875	July 31	2299	604	44	478
Fuller, Willard H., Passaic, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Photographic-printing frame.	386,876	July 31	2300	604	44	478
Fuller, Willard H., Passaic, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Photographic camera.	391,236	Oct. 16	1485	395	45	301
Fuller, Willard H., Passaic, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Fly-shutter for photographic cameras.	392,194	Nov. 6	28	7	45	600
Fuller, Willard H., Passaic, N. J., assignor to Scovill Manufacturing Company, New York, N. Y. Photographic camera.	393,696	Nov. 27	2241	588	45	1057
Fuller, William F., assignor of one-half to B. S. Snyder, Port Elmsley, Ontario, Canada. Bobbin-holder for spinning-spindles, &c.	376,982	Jan. 24	1823	479	42	370
Fuller, William H., Pittsburg, Pa. Color-printing machine.	395,561	Sept. 18	1154	303	44	1306
Fullerton, George A. (See Baldwin, John W., assignor.)						
Fullerton, George A., <i>et al.</i> (See Bradford, Charles K., assignor.)						
Fullerton, George A. (See Coy and Fullerton.)						
Fullerton, George A., Boston, Mass. Heel-stiffener machine.	384,753	June 19	1362	356	43	1396
Fullerton, George A., Boston, Mass. Heel-stiffener machine.	390,585	Oct. 2	542	143 144	45	109
Fullerton, George A., assignor to G. H. P. Flagg, trustee, Boston, Mass. Machine for buffing boot or shoe soles.	382,967	May 15	1601	419 420	43	839
Fullerton, George A., Boston, Mass., assignor of one-half to Facile Bottle Stopple Company, New York, N. Y. Bottle-stopper.	390,586	Oct. 2	545	144	45	110
Fullmer, A. J. (See Williams, Walter D., assignor.)						
Fulton, Harmon H., and W. F. Cornelius, assignors to D. L. Whittier, Indianapolis, Ind. Liquid-mixer.	387,631	Aug. 14	667	171	44	707
Fulton, Horace G., Washington, D. C. Hinge-gage.	386,428	July 17	1616	421	44	333
Fulton Iron and Engine Works. (See Kerr, Alexander M., assignor.)						
Fulton, James, and W. A. Vicle, South Bend, Ind. Axle-skein.	390,421	Sept. 25	2011	536	44	1182
Fulton, John, Biggs, Oreg. Attachment for corn planters.	394,351	Dec. 11	923	243	45	1258
Fulton, Samuel M., Galt, Cal. Windmill.	370,542	Mar. 13	949	256	42	1152
Fulton, Samuel W., near Northwood, Ohio. Fence-post.	382,256	May 1	559	141	43	616
Funk, Wilson B., Cleves, Ohio. Automatic uncoupler.	378,392	Feb. 21	1370	441	42	817
Funkhouser, George P. (See Downey and Funkhouser.)						
Farher, Harrison W., Boston, Mass. Boot or shoe.	380,715	Apr. 10	616	169	43	132
Furl, William, Lock Haven, Pa. Edging for upholstery purposes.	393,148	Nov. 20	1417	369	45	844
Furl, William, and R. Fraenzel, Lock Haven, Pa. Combined cradle and rocking-chair.	388,191	Aug. 21	1546	411	44	882
Furlong, Nicholas, Brooklyn, N. Y. Steam-boiler.	393,661	Nov. 20	1303	339 340	45	862
Furnas, John D., Waynesville, Ohio. Spring.	380,480	Apr. 3	253	70	43	52
Furniss, Frederick H., Waterloo, N. Y. Drive-well point.	382,697	May 15	1246	326	43	767
Furniture Caster Association. (See Berkey and Fox, assignors.)						
Furst, Albert, and R. Schaufelberger, Denver, Colo. Composition for building-stone.	387,921	Aug. 7	34		44	579
Furst, August, Corning, Kans. Straw-stacker.	376,873	Jan. 24	1679	438 439	42	342
Fürstenwörther, Johann B. v., Brooklyn, N. Y. Medicine cup and stopper.	377,483	Feb. 7	201	48	42	534
Fye, William H., assignor of one-half to C. Avery, Chicago, Ill. Sash-holder.	391,352	Dec. 11	924	243	45	1258
Fyfe, Peter, Glasgow, county of Lanark, Scotland. Steam trap.	380,281	Mar. 27	2096	561	42	1194
Fyfer, J. Th. (See Henninger, Frederick A., assignor.)						
Fyfer, John T. (See Henninger, Frederick A., assignor.)						
Fyrborg, Andrew. (See Johnson and Fyrborg.)						
Fysh, Oswald B., Moose Jaw, Northwest Territory, Canada. Two-wheeled vehicle.	379,659	Mar. 6	289	84	42	1020
Gabbs, William H., San Francisco, Cal. Trunk-harness.	380,431	Apr. 3	178	49	43	37
Gabriel, Bergenthal & Co. (See Hutfelmann, Wilhelm, assignor.)						
Gaddis, George D., East Machias, Me. Tire-tightener.	379,950	Mar. 27	1632	435	42	1302
Gaff, Thomas T., Cincinnati, Ohio, assignor to Cerealine Manufacturing Company, Columbus, Ind. Preserving farinaceous products.	388,962	Sept. 4	229		44	1116
Gage, Charles, Winchester, assignor to himself, J. Jacobs, Boston, and J. A. Chabot, Somerville, Mass. Centering-gage.	390,658	Oct. 9	641	171	45	435
Gage, George A. (See Goldie, William, assignor.)						
Gage, George F., Huntingdon, Pa. Railway-rail joint.	391,761	Dec. 18	1564	409	45	1391
Gage, John P. (See Dutton, Elmer E., assignor.)						
Gage, Loren F. (See Merithew, Zachens W., assignor.)						
Gage, Marine, Galt, Cal. Automatic whistle attachment.	379,641	Mar. 20	1145	303	42	1197
Gage, Mary S., St. Louis, Mo. Stove.	381,517	June 12	1019	265	43	1322
Gail, Harry S., Highland Park, assignor to E. C. Austin, Chicago, Ill. Drilling-tool.	381,124	Apr. 17	1266	339	43	263
Gaines, E. Darwin, Sterling, Ill. Potato-planter.	287,922	Aug. 7	35	8	41	579
Gailey, John E., Troy, N. Y. Fire-poker.	381,356	Apr. 17	1592	426	43	326
Galbraith, Edward A., Boston, Mass., assignor of one-half to P. P. Todd, New York, N. Y. Duplex percussion hand fire-extinguisher.	392,671	Nov. 13	728	185	45	719

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Disg.	Vol.	Page.
Gale, Charles E., assignor of one-half to C. W. Vaughn and E. H. Wood, Plattsburg, N. Y. Churn	384,518	June 12	1020	205	43	1322
Gale, Herbert N., Bristol, Conn., assignor of one-half to F. A. Dennett, Shoboygan, Wis. Steam-engine	377,247	Jan. 31	2207	582 583	42	453
Gale, Horatio, and C. D. Wiseloge, Albion, Mich. Pressure-regulator	383,877	June 5	38	12	43	1158
Gale, William L., Memphis, Mo. Clothes-drier	384,616	June 19	1161	307	43	1358
Galeher, Daniel R., Milwaukee, Wis. Fire-extinguisher for the stoves of railway-cars	389,924	Sept. 25	1722	455	44	1423
Gallagher, Darius F., Brooklyn, N. Y. Valve-gear	376,082	Jan. 10	428	135	42	107
Gallagher-Dickinson Broom Company. (See Gallagher, Richard D., assignor.)						
Gallagher, George F. (See Moore, Thomas B., assignor.)						
Gallagher, George F., assignor of one-half to T. B. Moore, Rochester, N. Y. Furnace	391,310	Oct. 16	1586	421	45	320
Gallagher, John P. (See Dumbuck, Gustave A., assignor.)						
Gallagher, Michael, Chicago, Ill. Dredging-machine	386,309	July 17	1441	381	44	295
Gallagher, Patrick, New York, N. Y. Tricycle	388,963	Sept. 4	230	61	44	1116
Gallagher, Richard D., assignor to Gallagher-Dickinson Broom Company, Chicago, Ill. Broom	386,310	July 17	1443	382	44	295
Gallaher, Benjamin D. (See Zallud, Karl, assignor.)						
Galland, Bonham, New York, N. Y. Suspensory	378,304	Feb. 21	1449	378	42	793
Galland, Charles, Lyons, France. Newspaper-selling apparatus	382,521	May 8	974	245	43	704
Galland, Joseph, assignor to Aultman & Taylor Company, Mansfield, Ohio. Thrashing-machine	391,139	Oct. 16	1352	360 361	45	275
Galloway, George W., Rye, N. Y. Oil-filter	388,550	Aug. 28	2070	557	44	991
Galli, James, Leeds, county of York, England. Gas-stove for domestic purposes	387,870	Aug. 14	1006	262	44	773
Galloway, Henry E., Chicago, Ill. Trousers-stretcher	376,053	Jan. 10	503	135	42	108
Gallup, Egbert H., assignor to E. H. and W. L. Mott, Oneida, N. Y. Barrel truck and stand	377,740	Jan. 3	31	9	42	9
Gallup, Oscar L., Holton, Mich. Stump-extractor	378,500	Feb. 28	1740	479	42	859
Gally, Merritt, New York, N. Y. Mechanical musical instrument	380,716	Apr. 10	617	170	41	132
Gally, Merritt, New York, N. Y. Mechanical musical instrument	387,635	Aug. 14	668	173	41	707
Galtier, Gabriel J. W., New York, N. Y. Cloth-cutting machine	385,050	June 26	1821	468	43	1495
Galvano-Paradic Manufacturing Company. (See Ten Broeck, Theodore R., assignor.)						
Galvin, James. (See Lynch, Charles, assignor.)						
Galvin, James, assignor to T. P. Taylor, Bridgeport, Conn. Bustle	378,439	Feb. 28	1654	434	42	841
Galvin, Thaddeus, Detroit, Mich. Means for flushing sewers	394,166	Dec. 11	628	168	45	1201
Gamble, Howard, Lansing, Kans. Combined feed-box and end-gate	379,569	Mar. 20	1040	272	42	1177
Gamble, Howard, Lansing, Kans. Nut-lock	391,410	Oct. 23	1726	460	45	354
Gamble, James N. (See Stickney, Paul, assignor.)						
Gamble, Joseph W., assignor of one-half to J. McCauley, Adair, Iowa. Draft-evener	380,755	Apr. 10	674	186	43	144
Gamble, Joseph W., and L. M. Rutt, Casey, Iowa. Sickle-grinder	385,176	June 26	1999	512	43	1531
Gamewell Auxiliary Fire Alarm Company. (See Milliken, George F., assignor.)						
Gamewell Auxiliary Fire Alarm Company. (See Milliken and Lytle, assignors.)						
Gamewell Fire Alarm Telegraph Company. (See Cole, Frederick W., assignor.)						
Gannon, Charles D., assignor of one-half to H. D. Nicholls, Chicago, Ill. Decoy-duck	390,587	Oct. 2	546	144	45	110
Ganpfer, Paul, Troy, Ohio. Earth-anger	386,397	July 17	1556	413	44	317
Gandy, Maurice, Liverpool, England. Chain or rope belting for driving machinery	377,484	Feb. 7	202	48	42	534
Gandy, Maurice, Liverpool, county of Lancaster, England. Apparatus for stretching belts	388,551	Aug. 28	2071	557 558	44	992
Gane, Jean V., Paris, France, assignor to F. J. and C. F. Page, Norwich, England. Apparatus for inserting and fixing the bristles of brushes, &c.	378,130	Feb. 21	1175	307 308 309	42	744
Gane, Jean V., Paris, France, assignor to F. J. and C. F. Page, Norwich, England. Machine for boring brush-bodies	378,131	Feb. 21	1183	309	42	745
Gane, Jean V., Paris, France, assignor to F. J. and C. F. Page, Norwich, England. Machine for making brushes	378,132	Feb. 21	1185	310	42	745
Ganse, Hervey D., Chicago, Ill. Device for operating a set of levers	382,298	May 8	628	110 161	13	639
Ganse, Hervey D., Chicago, Ill. Device for operating a set of levers	386,776	July 24	2117	556	44	436
Ganse, Hervey D., St. Louis, Mo. Device for operating a set of levers	390,768	Oct. 9	794	212 211	45	164
Ganse, Hervey D., St. Louis, Mo. Device for operating a set of levers	390,769	Oct. 9	799	212 213	45	165
Ganss, William H., Toledo, Ohio. Hemmer for sewing-machines	378,048	Feb. 14	1059	277	42	714
Gaut, Winfield S. (See Carter and Miller, assignors.)						
Gauter, Daniel C., Indianapolis, Ind. Device for steaming and cooking purposes	376,084	Jan. 10	504	136	42	108
Gauter, Edward D., Glasgow, Ky. Lace pin or brooch	383,719	May 29	2751	725	43	1077
Gauter, Francis X., Baltimore, Md. Machine for cutting the metal of show-case moldings	387,408	Aug. 7	368	79	44	631
Gauter, Francis X., Baltimore, Md. Show-case	394,481	Dec. 11	1160	286	45	1290
Gantt, James T., Macon, Ga. Cotton-planter	394,848	Dec. 18	1729	448 449	45	1425
Gard, Ivers A., et al. (See Patten, Jefferson, assignor.)						
Gard, William E., Meriden, Conn. Furniture-caster	384,837	June 19	1498	389	43	1422
Gardiner, Benjamin F., Cobleskill, N. Y. Easter-box	377,299	Jan. 31	2284	604	42	467
Gardiner, Charles S., Chicago, Ill. Steaming apparatus for staves, &c.	395,223	Dec. 25	2341	599 600	45	1547
Gardiner, Howell E., Battle Creek, Mich. Opera or school seat	376,738	Jan. 24	1465	387	42	304
Gardiner, Stephen H., Lynn, Mass. Fire-escape	384,143	June 5	448	124	43	1207
Gardiner, William I. (See Leppert and Gardiner.)						
Gardner, Charles A. (See Reardon, Dennis A., assignor.)						
Gardner, Emmet V. R., West Town, N. Y. Hay or straw grappling fork	384,970	June 26	1681	436 437	43	1466
Gardner, George W., and C. K. Sisco, Hopkinsville, Ky. Fastening for end-gates	395,129	Dec. 25	2177	561	45	1519
Gardner, Holly, Albany, N. Y. Cartridge-loader	387,223	Aug. 7	37	8	44	579
Gardner, J. B. (See Deboard, Cyrenous W., assignor.)						
Gardner, James C., Chicago, Ill. Extension-ladder	382,871	May 15	1471	386	43	812
Gardner, John A., Calico, N. C. Rice-rake, cotton-chopper, and cultivator	380,883	Apr. 10	875	235	43	179
Gardner, John H., Adairsville, Ga., assignor to J. E. Sanders and S. Waddell, Union City, Tenn. Baling press	393,697	Nov. 27	2242	588	45	1057
Gardner, Marshall. (See Stone and Gardner.)						
Gardner, Marshall, assignor of one-half to J. Stone, Aurora, Ill. Box of plastic material	383,175	May	1340	509	43	914
Gardner, Marshall, assignor to J. Stone, T. H. Ball, Aurora, and S. Florsheim, Chicago, Ill. Multiplex sewing-machine	379,570	Mar. 20	1041	277 278	42	1178
Gardner, Marshall, assignor to J. Stone, T. H. Ball, Aurora, and S. Florsheim, Chicago, Ill. Gang sewing-machine	386,700	July 24	2006	529 530	44	416
Gardner, Perry G., North Adams, Mass., assignor of one-half to R. S. Penniman, Dover, N. J. Electric fuse	377,851	Feb. 14	776	198	42	657
Gardner, Rufus, Scotland Neck, N. C. Peanut-planter	381,357	Apr. 17	1593	426	43	327

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Gardner, Samuel R., Port Colden, N. J. Platform-spring for vehicles	394,686	Dec. 18	1452	379	45	1370
Gardner, Stephen A., et al. (See Elmendorf, Albert, assignor.)						
Gardner, Stephen A., et al. (See Elmendorf and Washburn, assignors.)						
Garly, Henry D., Northeast, Md., assignor of one-half to C. A. Cooper, Philadelphia, Pa. Toy hoop	385,704	July 10	557	145	44	116
Gare, Thomas, Stockport, county of Chester, England. Flexible shaft	393,065	Nov. 20	1305	340	45	862
Gareau, Roch R., Detroit, Mich. Indicator for hotels	393,894	Dec. 4	239	64	45	1118
Gareau, Roch R., assignor of one-half to P. J. Beaubien, Detroit, Mich. Office-indicator	383,333	May 22	2259	600	41	972
Garfield, Albert G., Chicago, Ill. Halter, &c.	375,809	Jan. 3	116	51	42	27
Garfield Injector Company. (See Young, Lambert, and Ferris, assignors.)						
Garford, Arthur L., Elyria, Ohio. Saddle for velocipedes	388,484	Aug. 28	1985	533	44	975
Garl, Manions, Canton, Ohio. Mechanical telephone	387,636	Aug. 14	670	154	44	708
Garland, Michael, Bay City, Mich. Lumber-trimmer	386,701	July 21	2007	530	44	416
Garland, Michael, Bay City, Mich. Elevator for grain, water, &c.	392,421	Nov. 6	360	9, 90	45	662
Garland, Michael, and A. D. Catlin, Bay City, Mich., said Catlin assignor to said Garland. Direct-acting steam engine	382,082	May 4	312	82	43	570
Garland, Milton H., Somerville, Mass. Inkstand	382,698	May 15	1218	326	43	767
Garlick, David, et al. (See Dixon, John, assignor.)						
Garlick, Jew, Paterson, N. J. Toy locomotive	392,324	Nov. 6	213	55, 56	45	635
Garlock, Olin J., assignor to Garlock Packing Company, Palmyra, N. Y. Machine for dividing packing-rings	394,111	Dec. 4	547	146	45	1175
Garlock Packing Company. (See Garlock, Olin J., assignor.)						
Garman, John, Ebensburg, assignor of one-half to D. E. Evans, Cambria, Pa. Baling press	379,156	Mar. 6	422	119	42	1046
Garner, Henry, et al. (See Gasking, George H., assignor.)						
Garnier, Emile. (See Leroufoux and Garnier.)						
Garnier, François J., and N. Curé, Brussels, Belgium. Pipe-joint	390,770	Oct. 9	801	213	45	165
Garnier, Martin J., Pittsburg, assignor of one-half to J. Stewart, Sharpsburg, Pa. Measure for drafting garments	390,291	Oct. 2	127	36	45	28
Garrett, John W., St. Louis, Mo. Journal-bearing	386,808	July 31	2175	574	44	457
Garretson, Oliver S., Buffalo, N. Y. School furniture	379,387	Mar. 13	758	205	42	1115
Garretson, Oliver S., Buffalo, N. Y. School furniture	379,388	Mar. 13	759	205	42	1116
Garrett, Albert F. M., and P. Frank, Dadeville, Ala., assignors to said Garrett. Wrench	382,019	May 15	1756	451	43	867
Garrett, Frank A., Syracuse, N. Y. Adjusting device for dampers	378,671	Feb. 28	1981	526	42	907
Garrett, Samuel H., Mansfield, Ohio. Fence-machine	376,521	Jan. 17	1132	296	42	231
Garrett, William, and S. T. Wellman, Cleveland, Ohio. Rolling-mill plant	381,629	Apr. 21	2082	545	43	411
Garrett, William H., Geneva, Nebr. Feed-trough	381,357	June 12	781	204	43	1277
Garrison, Charles M., Wichita, Kans. Means for utilizing the current force of running water	385,261	June 26	2136	514, 515	43	1559
Garrison, Charles M., Wichita, Kans. Roofing	391,237	Oct. 16	1487	45	45	392
Garrison, Charles M., Wichita, Kans. Spark-arrester	392,672	Nov. 13	729	185	45	719
Garrison, David, and G. C. Reukauff, Philadelphia, Pa. Clamp	386,631	July 24	1908	504	41	398
Garrison, Frank C., Aldine, N. J. Coverer and land roller	391,238	Oct. 16	1487	395	45	392
Garrison, Fred A., Fort Dodge, Iowa. Photographic cabinet	381,751	June 19	1363	357	43	6297
Garrison, Reuben W., et al. (See Pope, James M., assignor.)						
Garrow, Alexander, Bedford, Quebec, Canada. Device for punching the eyes in axes, &c.	389,562	Sept. 18	1157	303	44	1306
Garsed, Joshua, Philadelphia, Pa. Skein-reel	381,771	Apr. 21	2195	574	43	43
Garsed, Robert P., Norristown, Pa. Track-buffer	380,680	Apr. 10	519	157	43	123
Garsed, Robert P., Norristown, Pa. Pneumatic annunciator	381,144	June 5	448	121	43	127
Garsed, Robert P., Norristown, Pa. Annunciator	389,378	Sept. 11	876	226	44	1247
Garst, Stephen H., Greenville, Ohio. Manure-distributor	383,639	May 29	2626	695, 696	43	1051
Gärtner, Albert F. (See Gemünden and Gärtner.)						
Gärtner, Carl. (See Jansen, Carl J. B., assignor.)						
Gartside, William N., Richmond, Ind. Door-plate and indicator	380,652	Apr. 3	514	141	43	101
Garver, David A. (See Straight, Clarence H., assignor.)						
Garver, David A., and C. H. Straight, Bryan, Ohio. Tray for wheelbarrows	380,562	Apr. 3	389	111	43	79
Garver, David A., and C. H. Straight, Bryan, Ohio. Wheelbarrow	381,358	Apr. 17	1594	426	43	327
Garver, David A., and C. H. Straight, Bryan, Ohio. Tube and making the same	385,169	June 26	1907	46	44	1513
Garver, John H. (See Friege, Frederick M., assignor.)						
Garvey, Owen F., Pawtucket, R. I. Soldering-pliers	381,544	Apr. 24	1880	496	43	400
Garvie, George D., New York, N. Y. Drop-cabinet	392,422	Nov. 6	363	90	45	662
Gas Consumers Benefit Company of the United States. (See Jackson, Walter M., assignor.)						
Gas Engine and Power Company. (See Seabury, Charles L., assignor.)						
Gas Motoren Fabrik Deutz. (See Otto, Nicolaus A., assignor.)						
Gash, Edgar, Macomb, Ill. Broom-holder	380,320	Apr. 3	19	5	43	6
Gasiowski, Joseph, Brooklyn, N. Y. Machine for cutting twist-drills	390,223	Oct. 2	41	12	45	12
Gaskell, Frank N., Joda, Wis. Can	376,055	Jan. 10	505	136	42	108
Gaskill, Harvey F., Lockport, N. Y. Triple-expansion engine	381,250	June 12	618	166, 167	43	1249
Gaskill, Harvey F., Lockport, N. Y. Cut-off-valve gear	391,040	Oct. 16	1214	322	45	250
Gaskill, Harvey F., Lockport, N. Y. Triple-expansion engine	394,182	Dec. 11	1102	286, 287	45	1270
Gaskin, Robert, Jr., Portland, New Brunswick, Canada. Machine for truing the teeth of saws	383,720	May 29	2752	725	43	1077
Gasking, George H., assignor to H. Garner and C. M. Dimmick, Newburg, N. Y. Combined whip-socket and rein-holder	381,359	Apr. 17	1595	427	43	327
Gaskins, Thomas, Arcadia, Fla. Car-coupling	382,602	May 8	1105	284	43	730
Gass, Henry, Mobile, Ala. Match-box	388,354	Aug. 21	1729	478	44	932
Gassis, Armand, Châteaulin, France. Apparatus for preventing smoking in fire-places	385,610	July 3	418	106	44	82
Gaston, Augustine J., Beloit, Wis. Paint-mill	383,352	May 22	2193	579, 580	43	961
Gaston, James E., Fort Worth, Tex. Arc lamp	385,705	July 10	557	145, 146	44	116
Gateau, Antoine, Chicago, Ill. Gasoline stove	344,070	Dec. 4	489	131	45	1165
Gates, Eugene N., Holyoke, Mass. Heating apparatus for buildings	392,551	Nov. 6	548	138	45	690
Gates, George S., Athol, Mass. Fishing-reel	377,100	Jan. 31	2096	525	42	413
Gates, George W., Oshkosh, Wis. Match-frame	383,721	May 29	2753	725	43	1077
Gates, George W., Oshkosh, Wis. Match press or frame	384,722	May 29	2754	725	43	1077
Gates, Henry, assignor of one-half to J. J. Matchett, Brooklyn, N. Y. Vending apparatus	393,149	Nov. 20	1418	370	45	884
Gates, Howard, Elk Rapids, Mich. Saw-set	389,644	Sept. 18	1296	339	44	1340
Gates, Matthias, Wichita, Kans. Adjustable miter-bevel	392,508	Nov. 6	485	121	45	687
Gates, Phileas W., Chicago, Ill. Pulverizer	380,432	Apr. 3	179	49, 50	43	37
Gates, William, and A. G. Snell, New Haven, Conn. Carriage canopy-joint	389,379	Sept. 11	878	226	44	1243

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Gathmann, Louis. (See Wemple, Andrew, assignor.)						
Gathmann, Louis, Chicago, Ill. Machine for splitting grain	376,712	Jan. 17	1422	374	42	286
Gathmann, Louis, Chicago, Ill. Making tubes	389,144	Sept. 4	520	132	44	1168
Gathmann, Louis, Chicago, Ill. Machine for forming spirals from flat metal bars	390,357	Oct. 2	225	60	45	47
Gatbright, John R., Louisville, Ky. Railway street-sprinkler	378,672	Feb. 28	1985	526	42	908
Gatling, Richard J., Hartford, Conn. Apparatus for casting ordnance	380,756	Apr. 10	675	186 187	43	144
Gault, Alexander, Medford, Minn. Artificial leg	383,569	May 29	2533	669	43	1030
Gault, Alexander, Medford, Minn. Artificial leg	390,358	Oct. 2	227	61	45	48
Gauthier, Apollinaire, Grass Valley, Cal. Plate-amalgamator	392,860	Nov. 13	1012	259	45	798
Gauthier, Clement, Marsas, near Cavignac, Gironde, France. Atomizer	386,121	July 17	1162	309	44	242
Gauzentes, Charles. (See Spink and Gauzentes.)						
Gavin, George. (See Cromer and Gavin.)						
Gavin, George, L. W. Cromer, and F. Gilmer, Eureka, Nev. Portable fire-escape	378,833	Feb. 28	9230	593	42	954
Gavin, George, and L. W. Cromer, assignors to themselves and F. M. Heitman, Eureka, Nev. Wrench	378,584	Feb. 28	1860	491	42	883
Gavin, John B., assignor to F. C. Austin, Chicago, Ill. Grading and ditching machine	394,535	Dec. 11	1183	308	45	1304
Gavin, John B., assignor to F. C. Austin, Chicago, Ill. Gradiog and ditching machine	394,535	Dec. 11	1185	308 309	45	1305
Gavin, Stephen J., assignor to S. M. and E. W. Morris, Philadelphia, Pa. Furnace-grate	388,273	Aug. 21	1673	447 448	44	910
Gaw, William H. (See Frishmuth, William, assignor.)						
Gay, Frederick W., Ottawa, Ill. Two-wheeled vehicle	386,311	July 17	1444	382	44	295
Gay, George E., and J. H. Parsons, Augusta, Me. Screw-driver	387,409	Aug. 7	309	79	44	632
Gay, Joshua G., Ottawa, Ill. Road-cart	387,637	Aug. 14	672	174	44	708
Gay, Thomas J., assignor to B. F. Story and S. E. Blackstone, Laconia, N. H. Device for moving and holding stage-carpets	393,754	Dec. 4	32	10	45	1078
Gay, Ware B., et al., trustees. (See Wheeler, Elbridge, assignor.)						
Gay, William A., Newark, N. J. Door-knob	386,243	July 17	1353	357	44	278
Gaylor, Adolph L., New Britain, Conn. Razor	380,387	Apr. 3	123	36	43	26
Gaylord, Frederick H., et al. (See Fortin, Charles L., assignor.)						
Gaylord, George B., Providence, R. I., assignor to Florence Machine Company, Florence, Mass. Oil-stove	383,805	May 29	2897	764 765	43	1103
Gaylord, William R. (See Motea, Baptist, assignor.)						
Gaynor, E. F. J., et al. (See Demarest, Francis M., assignor.)						
Gazeley, Frederick, Montreal, Quebec, Canada, assignor to J. J. Drummond, Chicago, Ill. Office-file for letters, papers, &c	381,360	Apr. 17	1596	427	43	327
Geary, John, Philadelphia, Pa. Electric annunciator	381,772	Apr. 24	2196	574	43	463
Geary, Peter, Sterling, Ohio. Fence-post	391,363	Oct. 16	1658	439	45	333
Geatty, Hamilton C., assignor of one-half to J. G. Byers, Kingsdale, Pa. Railway-switch	376,772	Jan. 24	1526	401 402	42	315
Gebhardt, Lorenz. (See Batt, John B., assignor.)						
Gebhardt, Henry J., Minneapolis, Minn. Temperature-regulator	388,031	Aug. 21	1270	345	44	833
Geddes, James W., assignor of two-thirds to H. Hopper and J. R. Wright, Baltimore, Md. Restoring old metal cans	387,587	Aug. 7	601		44	687
Gedge, Burton H., Covington, Ky. Electric railway-signal	382,299	May 8	632	161	43	640
Geenen, Adolph, Beloit, Kans. Attachment for bridles	383,176	May 22	1941	509	43	914
Geffs, Mary L., assignor of one-half to F. G. Cassidy, Cincinnati, Ohio. Corset	390,771	Oct. 9	802	213	45	165
Gegauf, Friedrich, assignor to H. Bornemann, Newark, N. J. Holding-frame for embroidering-machines	388,035	Aug. 21	1972	345 346	44	833
Gehret, Henry A., assignor of one-half to W. F. Marks, Reading, Pa. Sliding-door fastener	385,550	July 3	325	84	44	65
Gehrett, James A., and J. W. Cartlich, Carrollton, Mo. Gate	392,024	Oct. 30	2598	702	45	540
Geigy, Jean R. (See Mylins, Adelbert, assignor.)						
Geis, Michael. (See Lethert, Anthony, assignor.)						
Geisel, Andrew, St. Louis, Mo. Oven for gasoline, gas, or coal-oil stoves	385,348	July 3	13	4	44	5
Geissel, Friedrich, Chicago, Ill. Type-rubbing machine	378,880	Mar. 6	35	9, 10	42	973
Geltz, William T., Mansfield, Ohio. Cash and package carrier	385,110	June 26	1908	486	43	1513
Gem City Stove Company. (See Gunmer, Charles M., assignor.)						
Gemmell, Robert, Brookline, assignor to himself and G. Frost, Newton, Mass. Hammock	392,603	Nov. 13	634	159	45	722
Gemmill, John B., Red Bluff, Cal. Harvester	377,067	Jan. 31	1951	513	42	403
Gemünden, George A., and A. F. Gärtner, Savannah, Ga. Shipping appliance	380,199	Mar. 27	1989	533	42	1371
Gemünden, George A., and A. F. Gärtner, Savannah, Ga. Bung-fastener	381,920	May 1	30	9	43	520
Gemünden, George A., and A. F. Gärtner, Savannah, Ga. Fastening for bottle-stoppers	388,854	Sept. 4	74	19	44	1087
Gendron, Peter, Toledo, Ohio. Canopy-holder for children's carriages	377,608	Feb. 7	383	99	42	569
Gendron, Peter, Toledo, Ohio. Upsetting-machine	382,355	May 8	722	182	43	656
Gendron, Peter, Toledo, Ohio. Vehicle-wheel	382,356	May 8	723	182	43	656
Gendron, Peter, Toledo, Ohio. Rolling tires	383,521	May 29	2470	652	43	1017
Genese, David, Baltimore, Md. Artificial tooth	377,248	Jan. 31	2210	583	42	454
Gennert, Emil F. (See Gleason and Gennert.)						
Gennert, Emil F., Brooklyn, N. Y. Adjustable nipple for incandescent electric lamps	381,921	May 1	31	9	43	520
Gennert, Emil F., and D. N. Gleason, Brooklyn, assignors to E. P. Gleason Manufacturing Company, New York, N. Y. Punch and die	382,357	May 8	724	182 183	43	656
Gennert, Ernest T., New York, N. Y. Extracting oil from oleaginous seeds	393,972	Dec. 4	349	94	45	1138
Gennert, Ernest T., New York, N. Y. Apparatus for extracting oil from oleaginous seeds	393,973	Dec. 4	350	95	45	1138
Gentry, Joshua H., Sheldon, Mo. Hog-trap	383,218	May 22	2001	524	43	926
Gentry, Oliver H., Opelousas, La. Swinging treadle	380,029	Mar. 27	1754	470	42	1324
Gentry, William A., assignor of one-half to W. G. Morrison, Trenton, Ga. Ratchet mining-drill	393,895	Dec. 4	211	64	45	1118
Genty, Lucien, Tours, France. Hot-air engine or aerothermic motor	387,063	July 31	2563	674 675	44	530
Genzen, Herman, Fort Ringgold, Tex. Tent	394,252	Dec. 11	784	268	45	1229
George, Adam, and W. Kleindinst, Buffalo, N. Y. Water-wheel	384,838	June 19	1498	390	43	1423
George, Adam H., Passaic, N. J. Hand vise or clamp	376,191	Jan. 10	660	176	42	137
George, James H. (See Hatch and George.)						
George, John S., assignor of one-half to J. W. Brasfield, Newport, Oreg. Gold-separating apparatus	394,112	Dec. 4	548	147	45	1176
George, Wilson H. (See Fritz and George.)						
George, Wilson H., Dayton, Ohio. Mesh-clearer for bolts	390,359	Oct. 2	229	61	45	48
Georget, François X., Camden, N. J. Railway-bedding	381,125	Apr. 17	1268	339	43	263
Georgia, Harrison W., Smethport, and E. Andrews, Williamsport, Pa. Device for jointing, dressing, and sharpening saws	382,467	May 8	892	228	43	687
Gepford, William, West Salem, Ohio. Swinging gate	379,457	Mar. 13	862	233	42	1136
Gérard, John, assignor to Landers, Frary & Clark, New Britain, Conn. Egg-beater	380,200	Mar. 27	1990	533	42	1371

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Gérard, John, and R. L. Webb, assignors to Landers, Frary & Clark, New Britain, Conn. Molasses-gate.	377,555	Feb. 7	309	79	42	554
Gerard, L. L., et al. (See Bradley, Charles E., assignor.)						
Gerardi, Pascal, et al. (See Odorizzi, Joseph, assignor.)						
Gerber, Henri, assignor to E. Francillon & Co., St. Inier, Switzerland. Watch-case pendant.	383,219	May 22	2002	524	43	926
Gerbracht, Ernest W., Brooklyn, N. Y. Apparatus for varnishing wheels.	392,325	Nov. 6	215	56	45	635
Gerbracht, Eugene A., New York, N. Y. Child's carriage.	376,591	Jan. 17	1225	322	42	250
Gercke, Rudolf O., Augusta, Ga. Car-starter.	385,800	July 10	695	181	44	143
Gerdon, Gregory. (See Reynolds and Gerdon.)						
Gere, George H., Fort Plain, N. Y. Device for derailing cars.	383,723	May 29	2755	726	43	1077
Gerehart, Thomas, et al. (See Denarest, Francis M., assignor.)						
G-rke, William, Providence, R. I. Tail-piece for stringed instruments.	377,068	Jan. 31	1953	513	42	403
Germain, Victor A., Paris, France. Call-bell or alarm.	386,632	July 21	1909	505	44	398
Germania Bottle Company. (See Waitt, George L., assignor.)						
Germania Bottle Stopper Company. (See Wiegand, S. Lloyd, assignor.)						
Germann, John M., New York, N. Y. Spoke-drawer.	384,630	Apr. 24	2084	545	43	442
Germun, John, Jersey City, N. J. Heel for boots or shoes.	389,563	Sept. 18	1158	304	44	1306
Gerry, James H., assignor to Self Winding Clock Company, Brooklyn, N. Y. Electric striking attachment for clocks.	393,637	Nov. 27	2152	563	45	1039
C rry, James H., assignor to Self Winding Clock Company, Brooklyn, N. Y. Pendulum-regulator for clocks.	393,638	Nov. 27	2154	563	45	1039
Gerry, Perley A., Lawrence, Mass. Combination-tool holder.	393,698	Nov. 27	2213	588	45	1057
Gersch, Charles H. (See Franzse, Peter J., assignor.)						
Gersch, Charles H., Chicago, Ill. Cable-covering machine.	383,353	May 22	2195	580	43	961
Gerstle, Albert M. (See McAndrews, William H., assignor.)						
Gesner, George W., New York, N. Y., assignor to Hydrogen Company of the United States. Apparatus for oxidizing the surface of metals.	376,874	Jan. 21	1680	439	42	343
Gesner, George W., New York, N. Y., assignor to Hydrogen Company of the United States, of New York. Treatment of metals.	379,866	Mar. 20	1511	398	42	1268
Gessner, David, Worcester, Mass. Cloth-pressing machine.	387,287	Aug. 7	123	32	44	596
Gessner, David, Worcester, Mass. Cloth-pressing machine.	387,288	Aug. 7	128	34		
Gessner, David, Worcester, Mass. Machine for pressing cloth.	387,289	Aug. 7	129	34		
Gessner, David, Worcester, Mass. Cloth-pressing machine.	387,290	Aug. 7	129	35	44	597
Gessner, David, Worcester, Mass. Cloth-pressing machine.	387,291	Aug. 7	136	36		
Gessner, David, Worcester, Mass. Machine for pressing fabrics.	387,292	Aug. 7	141	38		
Gessner, David, Worcester, Mass. Cloth-pressing machine.	387,293	Aug. 7	145	39	44	599
Gessner, David, Worcester, Mass. Finishing cloth.	387,294	Aug. 7	146	39	44	600
Gessner, David, Worcester, Mass. Finishing cloth.	387,295	Aug. 7	149	39, 40	44	600
Gessner, David, Worcester, Mass. Cloth-pressing machine.	387,296	Aug. 7	151	40	44	600
Gessner, David, Worcester, Mass. Cloth-pressing machine.	387,297	Aug. 7	152	40, 41	44	600
Gessner, David, Worcester, Mass. Machine for pressing cloth.	388,127	Aug. 21	1449	3-8	44	865
Gessner, David, Worcester, Mass. Machine for pressing cloth.	393,004	Nov. 20	1223	318	45	845
Gessner, Gustavus A., Fremont, Ohio. Gas-governor.	386,609	July 31	2175	574	44	457
Getchell, Charles E., Waltham, Mass., assignor of one-half to S. N. Bourne, Manchester, N. H. Apparatus for making sulphurous acid.	378,673	Feb. 28	1987	526	42	908
Getchell, John M., assignor of one-half to F. S. Sleeper, North Haverhill, N. H. Corn-planter.	379,389	Mar. 13	761	205	42	1116
Gethins, James L., Boston, Mass. Galvanic battery.	393,639	Nov. 27	2155	564	45	1039
Getman, Henry W., Ilion, N. Y. Harness-hook.	375,994	Jan. 3	367	98	42	75
Getman, Henry W., Ilion, N. Y. Holdback for vehicles.	379,157	Mar. 6	423	119	42	1046
Getty, George G., Adams, Mass. Door-securer.	383,724	May 29	2756	726	43	1078
Geyer, Andrew, Cambridge, Mass. Safety device for druggists' bottles.	392,661	Nov. 13	1013	260	45	798
Geyer, Phillip, assignor of one-half to R. Rieger, Reading, Pa. Horse-detacher.	386,877	July 31	2301	605	44	478
Geyer, William E. (See Bristol and Geyer.)						
Geyser, Jacob, Allegheny, assignor of one-half to C. H. Miller, Pottsville, Pa. Arrow for passing cord through pipe-lines.	382,257	May 1	560	141	43	616
Ghegan, John J., Newark, N. J. Boiler-alarm.	383,946	June 5	155	45	43	1150
Ghegan, John J., Newark, N. J. Magneto-electric liquid-level indicator.	381,200	June 5	535	146	43	1224
Gholson, William C., assignor of one-half to C. L. Doughty, Cincinnati, Ohio. Fence-machine.	379,458	Mar. 13	803	233	42	1136
Gibb, Austin, Beloit, Wis. Folded paper for carpet-lining, &c.	379,571	Mar. 20	1045	278	42	1178
Gibb, Henry E. (See Shaffer, Simon B., assignor.)						
Gibbes, W. Hampton, Jr., Columbia, S. C. Saw-mill-feed device.	376,592	Jan. 17	1226	323	42	250
Gibbins, James, assignor of one-half to S. H. Howland, Springfield, Mass. Operating elevator-gates.	387,224	Aug. 7	38	8, 9	44	579
Gibboney, William, Jr., Belle Hampton, Va. Car-coupling.	391,149	Oct. 16	1353	361	45	275
Gibbons, Philip M., W. K. Topley, and G. F. Brown, Sumbury, Pa. Attachment for nail-machines.	391,465	Oct. 23	1804	483	45	370
Gibbs, Alvin J., Canton, Ohio. Book-holder.	392,115	Oct. 30	2751	748	45	579
Gibbs, Eugene S., and E. Harper, Lyons, Iowa. Churn.	378,501	Feb. 28	1741	459	42	860
Gibbs, Frank J. (See Woodin and Gibbs.)						
Gibbs, Frederick H. (See La Casse, Henry, assignor.)						
Gibbs, Frederick H., Syracuse, N. Y. Apparatus for the manufacture of wheels.	377,196	Jan. 31	2123	560	42	438
Gibbs, George, Milwaukee, Wis. Interlocking switch and signal.	381,773	Apr. 24	2197	575	43	463
Gibbs, George, Milwaukee, Wis. Fire-extinguisher for railway-cars.	387,064	July 31	2566	675	44	531
Gibbs, George, assignor of one-half to I. Smith, Paterson, N. J. Alarm-lock.	379,642	Mar. 20	1146	303	42	1197
Gibbs, James E., assignor of one-half to W. G. Mathes, Jonesborough, Tenn. Churn-dasher.	380,282	Mar. 27	2097	561	42	1394
Gibbs, John M., Park Hill, Ontario, Canada. Draft-regulator for smoke-passages.	376,473	Jan. 17	1060	277	42	218
Gibbs, Lewis, Canton, Ohio. Lawn-rake.	385,751	July 10	628	164	44	130
Gibbs, William C., assignor of one-half to G. W. Dornin, Oakland, Cal. Photographic camera.	394,353	Dec. 11	924	243	45	1258
Giberson, James M., Elmhurst, Ill. Railway-tie.	378,133	Feb. 21	1190	311	42	746
Gibford, Frank F., Englewood, Ill. Artificial-stone pavement.	378,009	Feb. 14	996	260	42	701
Gibford, Frank F., Englewood, Ill. Game apparatus.	386,907	July 10	989	264	44	292
Gibson, Alexander P., Monot Ida, W. Va. Feed mechanism for saw-mills.	386,195	July 17	1261	336	44	262
Gibson, Alfred S., Alma, Mich. Cartridge-loader.	385,611	July 3	419	107		
Gibson, Andrew K., Kimbolton, Ohio. Traction-engine.	378,502	Feb. 28	1742	460	42	860
Gibson, Charles D. P., New York, N. Y. Electric storage-battery.	379,572	Mar. 20	1046	278	42	1178
Gibson, Charles D. P., New York, N. Y. Plate for storage-batteries.	382,358	May 8	726	183	43	657
Gibson, Charles D. P., New York, N. Y. Storage-battery.	382,968	May 15	1605	429	43	839
Gibson, Charles D. P., New York, N. Y. Storage-battery plate.	383,640	May 29	2631	696	43	1052



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.	Vol.	Page.
Gibson, Charles D. P., New York, N. Y. Storage-battery plate .....	388,668	Aug. 28	2247	603	44	1024
Gibson, Edward T., Minneapolis, Minn. Police, fire, and district telegraph .....	378,927	Mar. 6	92	27	42	984
Gibson, Jacob H., New York, N. Y. Baby-carriage .....	381,834	Apr. 21	2302	559	43	482
Gibson, James C., San Francisco, Cal. Ore-feeder .....	389,456	Sept. 11	1660	267	44	1270
Gibson, Lucius B., Pueblo, Colo. Motor for street-cars .....	384,145	June 5	449	124	43	1267
Gibson, Lucius B., Pueblo, Colo. Motor for street-cars .....	384,146	June 5	451	125	43	1268
Gibson, Lucius B., Pueblo, Colo. Motor for street-cars .....	384,147	June 5	452	125	43	1268
Gibson, Lucius B., Pueblo, Colo. Motor for street-cars .....	384,148	June 5	453	125	43	1268
Gibson, Parish & Company. (See Herboldshimer, John B., assignor.)						
Gibson, Parish & Company. (See Phelps, Charles H., assignor.)						
Gibson, Samuel, San Francisco, Cal. Construction of subway-yokes for cable roads .....	382,969	May 15	1608	420	43	839
Gibson, Samuel, San Francisco, Cal. Cable-railway grip .....	382,970	May 15	1609	421	43	840
Gibson, Walter L., assignor to himself and J. H. Lee, Oviedo, Fla. Wrench .....	378,585	Feb. 28	1861	491	42	883
Gibson, William P., assignor to American Elevator Company, London, England. Hydraulic or other elevator .....	378,674	Feb. 28	1989	526	42	908
Giddings, Charles M., Massillon, Ohio. Spring attachment for governors .....	391,239	Oct. 16	1489	396	45	302
Giddings, Oliver L. (See Norfolk, Edward L., assignor.)						
Gielow, John, Chicago, Ill. Boring and tapping machine .....	376,032	Jan. 3	429	114	42	86
Gielow, John, Chicago, Ill. Machine for counterboring and tapping nuts .....	376,408	Jan. 10	956	250	42	191
Gieseler, Ernst A., Hoboken, N. J. Curve-scriber .....	390,360	Oct. 2	230	61	45	48
Giesy, S. Herbert, Washington, D. C. Door-check .....	377,852	Feb. 14	778	199	42	658
Giffard, Falconor, Omaha, Nebr. Letter-box .....	393,331	Nov. 20	1687	445	45	938
Gifford Brothers. (See Gifford, James, assignor.)						
Gifford, Cyrus. (See Necker and Gifford.)						
Gifford, James, assignor to Gifford Brothers, Hudson, N. Y. Friction-clutch .....	392,423	Nov. 6	364	90	45	663
Gifford, Jesse. (See Wilcox, Marcus M., assignor.)						
Gifford, Lord B., Toledo, Ohio. Adjustable vehicle-jack .....	378,001	Feb. 14	997	260	42	701
Gifford, Lord B., Toledo, Ohio. Car-mover .....	387,871	Aug. 14	1006	262	44	773
Gift, Jonathan, Star, Wis. Wagon-brake .....	377,101	Jan. 31	2008	526	42	414
Gilbert, Alonzo, and Z. T. Bush, Stanton, Mich. Vehicle-spring .....	390,659	Oct. 9	641	171	45	136
Gilbert, Benjamin F., Jr., Fair Haven, Vt. Mop-holder .....	378,586	Feb. 28	1862	491	42	884
Gilbert & Bennett Manufacturing Company. (See Drendul, Paul, assignor.)						
Gilbert, Franklin T., Walla Walla, Wash. Ter. Register for water-meters .....	393,102	Nov. 20	1551	373	45	871
Gilbert, George A., Milwaukee, Wis. Bolting-reel .....	387,872	Aug. 14	1008	263	44	773
Gilbert, George D., Corry, Pa. Propelling-gear for tram-cars .....	393,896	Dec. 4	242	65	45	1118
Gilbert, George H., assignor to W. M. Mervine, G. E. Schlegelmilch, and G. A. Freyer, Philadelphia, Pa. Oil, gas, or vapor stove .....	391,411	Oct. 23	1727	410	45	354
Gilbert, Henry J., Dayton, Ohio. Flour-bolt .....	388,855	Sept. 4	75	20	44	1087
Gilbert, Henry J., Dayton, Ohio. Roller-mill .....	389,380	Sept. 11	879	228	44	1248
Gilbert, James, assignor of one-half to C. E. Lee, Omaha, Nebr. Furnace .....	333,005	Nov. 20	1225	318	45	845
Gilbert, Joseph, et al. (See Metcalf, George A., assignor.)						
Gilbert, Leander G., assignor of one-half to T. Witmer, Jr., Buffalo, N. Y. Car-heater .....	394,354	Dec. 11	927	214	45	1259
Gilbert, Leander G., and M. W. Long, assignors to said Gilbert and T. Witmer, Jr., Buffalo, N. Y. Car-heater .....	377,934	Feb. 14	898	231	42	683
Gilbert, Russel V. (See Conner, Sheffer, and Gilbert.)						
Gilbert, Solomon P., St. Clair, Mich. Reflector for water-gages .....	389,802	Sept. 18	1522	403	44	1377
Gilbert, Wallace B. (See Reynolds, John, assignor.)						
Gilbert, William P. (See Norton and Gilbert.)						
Gilchrist, Howard H. (See Boettner, Charles W., assignor.)						
Gilchrist, James, et al. (See Neff, Elijah, assignor.)						
Gilchrist, Percy C., Westminster, county of Middlesex, England. Manufacture of steel and ingot-iron .....	377,609	Feb. 7	389	.....	42	569
Gilchrist, Raymond B., Peoria, Ill. Cork-extractor .....	384,839	June 19	1500	390	43	1423
Gilchrist, Raymond B., Jersey City, N. J. Cork-extractor .....	392,116	Oct. 30	2752	748	45	570
Gilchrist, William, Boston, Mass. Sled .....	390,588	Oct. 2	547	144	45	110
Gildea, John, et al. (See King, William H., assignor.)						
Gildemeyer, Charles A., Haddonfield, N. J., assignor of one-half to M. Rush, Philadelphia, Pa. Stair-rod securer .....	391,840	Oct. 30	2335	633	45	488
Gildemeyer, Charles A., Haddonfield, N. J., assignor of one-half to M. Rush, Philadelphia, Pa. Stair-rod securer .....	391,841	Oct. 30	2336	633	45	488
Gile, Fred H., Alfred, Me. Siphon .....	384,251	June 12	619	167	43	1249
Giles, Charles K. (See Fenner, Richard E., assignor.)						
Giles, Charles K., Chicago, Ill. Watch-case .....	385,612	July 3	421	107	44	83
Giles, Charles K., Chicago, Ill. Watch-case .....	386,398	July 17	1558	413	44	318
Giles, Charles K., Chicago, Ill. Watch-balance .....	387,973	Aug. 14	1176	319	44	806
Gilos, Joseph H., et al. (See Coyle, James, assignor.)						
Giles, Julian A., Oswego, N. Y. Chuck .....	393,150	Nov. 20	1420	371	45	884
Giles, Julian A., assignor of three-fourths to C. C. Place and E. A. Van Horne, Oswego, N. Y. Pipe-wrench .....	391,957	Oct. 30	2500	677	45	521
Giles, William B., Cantonbury, N., county of Middlesex, and A. Shearer, West Ham, county of Essex, England. Manufacture of phosphoric acid .....	393,428	Nov. 27	1825	.....	45	973
Giles, William T., and W. Booth, Shamokin, Pa. Device for discharging coke-ovens .....	379,390	Mar. 13	762	206	42	1116
Gillilan, William. (See Shaw and Gillilan.)						
Gilford, Frederick E., Lake Village, N. H. Piston water-meter .....	377,674	Feb. 7	487	126	42	587
Gilkerson, Leander, Jr., et al. (See Ross, Lafayette, assignor.)						
Gilkerson, Lewis M., et al. (See Ross, Lafayette, assignor.)						
Gill, Asher B., Philadelphia, Pa. Check register or tally .....	384,438	June 12	893	233	43	1299
Gill, James B., San Francisco, Cal. District-telegraph call-box .....	383,220	May 22	2002	525	43	926
Gill, John E., and T. M. Foley, Franklin, Pa. Gas-burner .....	390,660	Oct. 9	643	172	45	136
Gill, Richard, W. H. Butler, and S. Smith, Lawrence, Mass. Spinning-frame .....	380,563	Apr. 3	389	111	43	79
Gill, Richard, Methuen, W. H. Butler, and S. Smith, Lawrence, Mass. Spinning-spindle .....	386,810	July 31	2177	574	44	457
Gill, William A., and C. A. Morningstar, Columbus, Ohio; said Morningstar assignor to said Gill. Watch-movement box .....	390,161	Sept. 25	2070	552	44	1494
Gill, William E., and R. Segerdahl, assignors to J. F. Wollensak, Chicago, Ill. Electrical needle annunciator .....	383,725	May 29	2757	736	43	1078
Gillbee, Mannel A. T. (See Padmore and Gillbee.)						
Gilleland, Washington, Land, Ga. Flour-bolting reel .....	378,785	Feb. 28	2134	564	42	935
Gillee, Eugene C., assignor of one-half to W. L. Ramey, Madison, Nebr. Barrel-holder .....	376,376	Jan. 10	916	240	42	184

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'gt.	Vol.	Page.
Gilles, Herman, and D. Stern, Meadville, Pa. Alarm-lock	382,971	May 15	1611	421	43	840
Gilles, William, assignor of two-thirds to W. O'Herin and C. W. Weller, Parsons, Kans. Spark-arrester	377,485	Feb. 7	204	49	42	535
Gillespie, Alfred J., Atlantic, Iowa. Cord-fastener and label-holder for mail-bags	375,871	Jan. 3	188	52	42	41
Gillespie, James G. (See Albough and Gillespie.)						
Gillespie, James W. (See Bartle, John N., assignor.)						
Gillespie, Thomas A. (See McSweeney, Terrence, assignor.)						
Gillet, Alexis F., Burlington Junction, Mo. Draft-equalizer	389,699	Sept. 18	1377	361	41	1347
Gillet, Charles F., Springfield, Ill. Fence-machine	385,304	June 26	2208	566	43	1572
Gillet, Charles F., Springfield, Ill. Fish-line reel	389,070	Sept. 4	383	567	44	1146
Gillett, Joseph W. (See Hollinger and Gillett.)						
Gillette, Abner G., Atlanta, Ga. Tale-pulverizer	390,852	Oct. 9	914	211	45	185
Gillette, Cyrus B., Sparta, Wis. Gun-cleaner	387,410	Aug. 7	310	79	44	632
Gillette, George H., Newark, N. J. Fruit-basket	382,761	May 15	1325	348	43	783
Gillette, William, Hartford, Conn. Producing stage effects	389,294	Sept. 11	767		44	1236
Gillie, William M., Tonawanda, N. Y. Steering apparatus and windlass	380,481	Apr. 3	254	70	43	52
Gilliland, Ezra T. (See Edison and Gilliland.)						
Gilliland, Ezra T., assignor to American Bell Telephone Company, Boston, Mass. Telephone-transmitter	384,201	June 5	536	146	43	1225
Gilliland, Ezra T., New York, N. Y., assignor to Edison Phonograph Company, Orange, N. J. Phonograph	393,640	Nov. 27	2156	564	45	1040
Gillingham, Henry R., assignor of one-half to S. G. B. Cook, Baltimore, Md. Packing	389,564	Sept. 18	1158	304	44	1306
Gillingham, Henry R., assignor of one-half to A. L. Huggins, Baltimore, Md. Hot-air furnace	394,355	Dec. 11	929	244	45	1259
Gillingham, Henry R., Baltimore, Md., assignor to Postal Package Company of Baltimore City. Postal package	389,565	Sept. 18	1159	304	44	1306
Gillis, William, Buckingham, Quebec, Canada. Band-saw mill	384,252	June 12	621	167	43	1249
Gillogley, Thomas, High Market, N. Y. Sled-brake	389,700	Sept. 18	1379	361	44	1347
Gillon, Edward W., Brooklyn, N. Y. Tempering Bessemer-steel wire	379,573	Mar. 20	1048	278	42	1178
Gilman Advertising Co. (See Gilman, Willard H., assignor.)						
Gilman, Charles W., Biddeford, Me. Rein-holder	387,638	Aug. 14	673	174	44	708
Gilman, Willard H., Boston, Mass., assignor to Gilman Advertising Co., Concord, N. H. Combined advertising device and cigar-cutter	392,552	Nov. 6	549	139	45	699
Gilmartin, Michael. (See Clark, John, assignor.)						
Gilmer, James B., et al. (See Lyle, John N., assignor.)						
Gilmott, Gaspard. (See Boyer and Gilmott.)						
Gilmor, Frank. (See Gavin, Cromer, and Gilmor.)						
Gilmore, Frank E., Gerlaw, Ill. Straw-stacker	390,016	Sept. 25	1844	489	44	1447
Gilmore, Ira F., and A. P. Branaman; said Branaman assignor of one-half to J. T. Kelly, Leroy, Ill. Seeder and cultivator	375,741	Jan. 3	32	10	42	10
Gilmore, Isaac C. H., and H. B. Stafford, Oskaloosa, Iowa. Sad-iron	31,006	Apr. 10	1067	283	43	216
Gilmore, John, and W. R. Clark, London, England. Car-starter	376,875	Jan. 24	1682	439	42	343
Gilmore, Weller S., Chester, Ohio. Evaporator	393,699	Nov. 27	2245	559	45	1058
Gilson, William L., McMinnville, Oreg. Grain-separator	390,772	Oct. 9	803	213	45	165
Gindorff, Matthew, assignor of one-half to M. Dappen, Chicago, Ill. Clothes-drier	387,225	Aug. 7	39	9	44	579
Giogras, Timothy, Buffalo, N. Y. Belt-fastener	380,104	Mar. 27	1862	495	42	1346
Giogras, Timothy, Buffalo, N. Y. Belt-fastener	380,105	Mar. 27	1863	495	42	1346
Giogras, Timothy, Buffalo, N. Y. Belting	385,613	July 3	423	108	44	83
Ginn, William E., assignor of one-half to J. G. Moore, Woodberry, Md. Knife-sharpener	385,706	July 10	562	146	44	117
Ginna, Stephen A., et al. (See Hipperling, William, assignor.)						
Ginther, Henry S., assignor of one-half to M. J. Schrader, Duquoin, Ill. Implement for removing button-fasteners	389,145	Sept. 4	522	132	44	1169
Girard, Ferdinand E., and A. Rigault, Paris, France. Machine for making metallic clasps	377,379	Feb. 7	17	5, 6	42	498
Girtanner, Fred, Big Stone City, Dak. Ter. Straw-burning stove	378,766	Feb. 28	2135	565	42	935
Girvan, George F., Little Falls, N. Y. Alarm letter-box	378,166	Feb. 21	1236	335	42	754
Gisel, John, Buffalo, N. Y. Target	387,411	Aug. 7	311	80	44	632
Gissinger, Samuel, assignor of one-half to S. Wainwright, Pittsburg, Pa. Car-axle	386,460	July 24	1672	441	44	353
Gissinger, Samuel, Pittsburg, assignor of one-half to S. Wainwright, Allegheny County, Pa. Railway-car axle	391,703	Oct. 23	2126	574	45	437
Githens, Joseph C. (See Nutting and Githens.) (Reissue.)						
Given, John L., Melrose, assignor to himself and G. B. Kelly, Boston, Mass. Pneumatic cash-carrier apparatus	379,890	Mar. 20	1543	407	42	1274
Given, John L., Boston, Mass., assignor to Meteor Despatch Company, Portland, Me. Pneumatic cash-carrier apparatus	395,136	Dec. 25	2178	561	45	1519
Gladning, Jesse G. (See Brunsen and Gladning.)				562		
Gladney, Robert D., Keownville, assignor of one-half to R. B. Stephens, New Albany, Miss. Apparatus for distilling water and other liquids	378,881	Mar. 6	36	10	42	973
Glaister, Thomas S. (See Lyon, Robert B., assignor.)						
Glasecock, Edward P., Rensselaer, Mo. Apparatus to aid in writing on unruled paper	394,849	Dec. 18	1731	449	45	1425
Glasecock, Edward P., Rensselaer, Mo. Portable desk and card-holder	394,850	Dec. 18	1732	449	45	1426
Glaser, Charles, assignor of one-half to C. F. W. Dambmann, Baltimore, Md. Making acid phosphate	389,566	Sept. 18	1160		44	1367
Glaser, Heinrich. (See Leinwather, Aloys M., assignor.)						
Glasgow, John S., et al. (See Hawkins, Joseph B., assignor.)						
Glasgow, Robert W., Tranquility, Ohio. Pitch-fork	379,951	Mar. 27	1633	435	42	1302
Glasgow, William, and S. S. Stevens, Chicago, Ill., assignors to the Combined Electric and Trip Bell Cord Company. Bell-cord for cars	379,459	Mar. 13	864	233	42	1137
Glass, Elizabeth, San Francisco, Cal. Corset	390,162	Sept. 25	2071	234	44	1494
Glass, George, Cadillac, Mich. Device for side-dressing saws	384,149	June 5	425	125	43	1208
Glass, H. L. (See Kendrick, William F., assignor.)						
Glassecock, James H., Sherman, Tex. Fire-escape	378,882	Mar. 6	38	10	42	973
Glaser, Peter, Redding, Cal. Two-wheeled vehicle	387,350	Aug. 7	224	59	44	614
Glatz, Joseph. (See Domicier and Hagemann, assignors.)						
Glatz, Joseph. (See Hixley, Matthew, assignor.)						
Glatz, Joseph, et al. (See Mitting, Ebenezer K., assignor.)						
Glazbrook, Charles A. (See Tolhurst, Glazbrook, Philbey, and Lockerbie.)						
Glazebrook, Henry G. T., Simcoe, Ontario, Canada. Wrench	387,873	Aug. 14	1069	263	44	773
Glazebrook, Otis A. (See Hargin, John R., assignor.)						
Glazier, Elias C., assignor to Steam Gauge and Lantern Company, Rochester, N. Y. Tubular lantern	391,240	Oct. 16	1490	396	45	302
Glazier, George P. (See Wood, James P., assignor.)						
Gleason, Duane A. (See Gemert and Gleason.)						
Gleason, Elliott P., New York, N. Y. Automatic fire-extinguishing apparatus	392,117	Oct. 30	2754	748	45	571

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Gleason, Elliott P., and E. F. Gennert, Brooklyn, N. Y. Shade or globe holder for lamps.	385,453	July 3	180	48	44	36
Gleason, Homer A., Hampshire, Ill. Water-tank	377,427	Feb. 7	123	26	42	518
Gleason Manufacturing Company, E. P. (See Cunningham, James F., assignor.)						
Gleason Manufacturing Company, E. P. (See Gennert and Gleason, assignors.)						
Gleason Manufacturing Company, E. P. (See Lindner, Ernst, assignor.)						
Gleason, Oscar R., New York, N. Y. Bridle-bit	373,305	Feb. 21	1450	378	42	793
Gleason, Patrick, assignor of one-fourth to G. Manson, Wausau, Wis. Rule for measuring lumber.	375,742	Jan. 3	34	10	42	10
Gleason, William J. (See Jones, Edmund C., assignor.)						
Gledhill, George H., Halifax, county of York, England. Apparatus for checking the receipt of moneys.	391,958	Oct. 30	2501	{ 677 678 }	45	522
Gleich, Philip, and H. S. Krause, St. Paul, Minn. Hose-coupling	387,226	Aug. 7	41	9	44	580
Gleich, Philip, H. S. Krause, and R. J. Chenery, St. Paul, Minn. Pipe and pipe-fittings.	392,265	Nov. 6	120	33	45	619
Glen Cove Machine Company. (See Antenrieth, Ernst F., assignor.)						
Glen Cove Machine Company. (See Gray, William H., assignor.)						
Glen Cove Machine Company. (See Hutchinson, Alfred B., assignor.)						
Glen Cove Machine Company. (See Welsb, James F., assignor.)						
Glenn, Robert H., Bowman, Ga. Sash-holder	389,217	Sept. 11	630	161	44	1159
Glessner, Charles E. (See Tryner and Glessner.)						
Glessner, Charles E., Grand Junction, Colo. Water-elevator	389,071	Sept. 4	335	100	44	1146
Glew, Frederick H., assignor to T. Greenish, 30 Conduit Street, Bond Street, county of Middlesex, England. Apparatus for inhaling medicinal vapors, &c.	376,819	Jan. 24	1601	420	42	328
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heeling-machine	377,300	Jan. 31	2276	604	42	468
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heeling-machine	377,301	Jan. 31	2288	605	42	468
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-trimming machine	377,302	Jan. 31	2290	605	42	469
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heeling-machine	382,762	May 15	1326	349	43	783
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Rotary cutter	388,552	Aug. 28	2074	558	44	992
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Attaching heels and top lifts to boots or shoes	388,553	Aug. 28	2075	558	44	992
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-trimming machine	393,103	Nov. 20	1353	353	45	871
Glidden, Charles W., Lynn, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-making machine.	393,104	Nov. 20	1354	353	45	871
Glidden, Chase E., et al. (See Cusson, Japhet S., assignor.)						
Glidden, Joseph F., et al. (See Cusson, Japhet S., assignor.)						
Glidden, Joseph F., and P. W. Vaughan, De Kalb, Ill. Cultivator	378,089	Feb. 21	1115	292	42	733
Glidden, Oscar F., assignor, by mesne assignments, to Michigan Washing Machine Company, Grand Rapids, Mich. Washing-machine	383,425	May 22	2309	612	43	981
Glimes, Chandler L. (See Davis, Martin V. B., assignor.)						
Glismann, Otto, Hamburg, Germany. Horse-boot.	393,974	Dec. 4	353	95	45	1129
Glismann, Otto, Hamburg, Germany. Carriage	394,263	Dec. 11	788	{ 208 209 }	45	1230
Globe Buttonhole Machine Company. (See Reed, James H., assignor.)						
Globe Buttonhole Machine Company. (See Reed and Beale, assignors.)						
Globe Company. (See Baker, Edward E., assignor.)						
Globe Company. (See Yeiser, Henry C., assignor.)						
Globe Sectional Head Company. (See Proctor, David R., assignor.)						
Glock, Charles C., et al. (See Leland, Edwin A., assignor.)						
Glossop, Gilbert, Sheffield, county of York, England, assignor to F. C. Brooksbank and J. B. Perkins, Cleveland, Ohio. Pneumatic hammer	394,483	Dec. 11	1103	237	45	1290
Glossop, Gilbert, Sheffield, county of York, England, assignor to F. C. Brooksbank and J. B. Perkins, Cleveland, Ohio. Pneumatic hammer	394,484	Dec. 11	1104	{ 237 238 12 13 14 449 450 }	45	1290
Glover, Almon B., Birmingham, Conn. Wire-nail machine.	383,878	June 5	39	12 13 14	43	1129
Glover, George T., Chicago, Ill. Traction-engine	394,851	Dec. 18	1733	{ 449 450 }	45	1426
Glover, Henry P. (See Bowling, Enoch C., assignor.)						
Glover, Henry P., et al. (See Morgan, Benjamin B., assignor.)						
Glover, Joshua E., et al. (See Jarboe and McHale, assignors.)						
Glück, Solomon, Temple, Tex. Water-cooler	386,244	July 17	1354	357	44	278
Goad, George W., Sr., Aral, Va. Gravel-fountain spring	385,349	July 3	14	4, 5	44	5
Goad, J. W. (See Goad, William F., assignor.)						
Goad, William F., Mount Pleasant, assignor to himself and J. W. Goad, Columbia, Tenn. Knotter for harvesters.	394,536	Dec. 11	1187	309	45	1305
Goben, Levi F., Spring Hill, Mo. Mechanical movement	379,199	Mar. 6	476	135	42	1057
Goble, Truman L., Savona, N. Y. Velocipede	390,662	Oct. 9	645	172	45	136
Godbout, Joseph. (See Painchaud and Godbout.)						
Goddard, Ezra G., East Saginaw, Mich. Attachment for plows.	376,773	Jan. 24	1527	402	42	315
Goddard, Nate W., et al. (See Smith, Roswell T., assignor.)						
Goddard, Rodney W., trustee. (See Holt, Albert, assignor.)						
Goddard, William L., Brooklyn, assignor to P. Schneider Sons & Co., New York, N. Y. Coiled-spring compressor	377,803	Feb. 14	718	{ 181 182 }	42	646
Godding, Milton O. (See Godding, Talmat F. and M. O.)						
Godding, Milton O., Monrovia, Cal. Danger-signal for bridges	384,755	June 19	1365	357	43	1397
Godding, Talmat F., Longmont, Colo., and M. O. Godding, Santa Anita, Cal. Hay-rake.	389,803	Sept. 18	1522	625	43	995
Goddu, Louis, Winchester, Mass. Car-truck	381,620	Apr. 24	1989	522	43	422
Goddu, Louis, Winchester, assignor to J. W. Brooks, trustee, Cambridge, Mass. Nailing-machine	383,455	May 29	2350	{ 625 626 627 }	43	996
Goddu, Louis, Winchester, assignor to J. W. Brooks, Cambridge, and F. F. Stanley, Swampscott, Mass. Machine for screw-threading wire.	385,801	July 10	697	181	44	144
Goddu, Louis, Winchester, assignor to J. W. Brooks, Cambridge, and F. F. Stanley, Swampscott, Mass., trustees. Boot and shoe nailing machine	385,802	July 10	698	182	44	144
Goddu, Louis, Winchester, assignor to J. W. Brooks, principal trustee, Cambridge, and F. F. Stanley, associate trustee, Boston, Mass. Nailing-machine	388,128	Aug. 21	1450	389	44	865
Godefroy, Alexandre F., St. Louis, Mo. Hair-dressing device	389,803	Sept. 18	1522	403	44	1377
Godfrey, Honty M., Jonesburg, Mo. Cultivator	386,702	July 24	2010	531	44	417
Godfrey, Philip J., Taunton, Mass. Hot-corn holder	378,503	Feb. 28	1743	466	42	860

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Godfrey, Robinson M. (See Stewart, William H., assignor.)						
Godkin, Otto W., Milwaukee, Wis. Compressed-air motor	388,964	Sept. 4	231	61, 62	44	1116
Godley, George F., Philadelphia, Pa. Car-axle lubricator	381,691	Apr. 24	2085	546	43	442
Godley, George F., Philadelphia, Pa. Car-axle box	391,466	Oct. 23	1806	483	45	370
Godwin, John C., Roysa City, Tex. Drill	385,111	June 26	1909	487	43	1513
Godwin, Le Roy C., assignor to himself, A. P. Grice, and G. W. Lewis, Portsmouth, Va. Seal-lock	389,381	Sept. 11	884	231	44	1248
Goebel, Christian H., Philadelphia, Pa., assignor, by mesne assignments, to American Pneumatic Railway Company, of Tennessee. Pneumatic propeller for cars	376,984	Jan. 24	1825	479	42	371
Goebel, Christian H., assignor, by mesne assignments, to A. J. Ingraham, trustee, Philadelphia, Pa. Switch for pneumatic tubes	393,700	Nov. 27	2247	589	45	1058
Goebel, Christian H., assignor to M. K. Warren, Philadelphia, Pa. Pneumatic propeller	393,701	Nov. 27	2248	589	45	1058
Goebel, Herman A., assignor of one-half to L. Hirsch, Houston, Tex. Swing	377,380	Feb. 7	19	7	42	498
Goehring, Charles L., Allegheny, Pa. Machine for turning and molding wood	378,787	Feb. 28	2136	565	42	935
Goehring, Charles L., Allegheny, Pa. Machine for cutting and shaping wood	394,762	Dec. 18	1565	409	45	1394
Goehring, Charles L., Allegheny, Pa. Molding-machine	394,763	Dec. 18	1569	410	45	1395
Goehring, Charles L., Allegheny, Pa. Molding-machine	394,764	Dec. 18	1575	411	45	1396
Goehring, Charles L., Allegheny, Pa. Molding-machine	394,765	Dec. 18	1578	412	45	1397
Goehring, Charles L., Allegheny, Pa. Wood carving and molding machine	394,766	Dec. 18	1581	413	45	1398
Goehring, Charles L., Allegheny, Pa. Producing figures on the surface of wood or other material	394,767	Dec. 18	1586	414	45	1399
Goehring, John R., assignor to H. and T. B. Belfield, Philadelphia, Pa. Injector	375,810	Jan. 3	117	34	42	28
Goelet, Edward B., Fort Worth, Tex. Carriage-top	385,454	July 3	181	48	44	36
Goertz, August, Newark, N. J. Lock for bag or satchel frames	379,158	Mar. 6	423	119	42	1046
Goettel, John, assignor to A. D. Tingley, Boston, Mass. Car-coupling	388,856	Sept. 4	76	20	44	1087
Goettel, John, Boston, assignor of three-fourths to L. L. Dixon, Somerville, G. W. Squire, Cambridge, and J. T. Lipscomb, Boston, Mass. Chimney-cowl	379,216	Mar. 13	517	145	42	1070
Goetz, Adam D., Martinsburg, Pa. Leather-cutting die	392,673	Nov. 13	730	185	45	740
Goetz, George W. (See Wellman and Goetz.)						
Goetz, Henry A. (See Mitchell, Mancel W., assignor.)						
Goetz, Henry A., New Albany, Ind. Seed-tester	376,242	Jan. 10	731	194	42	150
Goetz, Henry A., New Albany, Ind. Beam-end protector	386,976	July 31	2448	644	44	508
Goetz, George H., Bahner, Mo. Sheaf-carrier	382,603	May 8	1106	284	43	731
Goff, Darius L., Pawtucket, R. I. Sample-book for textile fabrics	395,048	Dec. 25	2042	527	45	1493
Goff, Emmett S. (See Lovell and Goff.) (Reissue.)						
Goff, Samuel B., Camden, N. J. Water-motor	393,897	Dec. 4	243	65, 66	45	1118
Gog, George, Sr., St. Louis, Mo. Sled	389,218	Sept. 11	630	162	44	1199
Goggans, Daniel P., et al. (See Parkton, George W., assignor.)						
Gogin, George W., et al., trustees. (See Wheeler, Elbridge, assignor.)						
Gohen, James A., Huntington, W. Va. Detachable car-seat arm	383,726	May 29	2758	727	43	1078
Gohmann, Romanus H. (See Terstegege and Gohmann.)						
Gold, Edward E., New York, N. Y. Steam heater or radiator	379,952	Mar. 27	1634	435	42	1302
Gold, Edward E., New York, N. Y. Heating apparatus	388,772	Aug. 28	2399	647	44	1052
Gold, Edward E., New York, N. Y. Pipe-coupling for railway-cars	392,424	Nov. 6	366	91	45	663
Gold, Egbert H., Englewood, N. J. Steam-trap	394,167	Dec. 11	629	168	45	1201
Gold, Willis D., Philadelphia, Pa. Combined smoothing and polishing iron	384,904	June 19	1588	413	43	1439
Goldie, William. (See Durell and Goldie.)						
Goldie, William, West Bay City, Mich. Spike	394,113	Dec. 4	549	147	45	1176
Goldie, William, West Bay City, Mich., assignor to G. A. Gage, Chicago, Ill. Shingle-cutting machine	386,878	July 31	2303	605	44	479
Golding, John F., Chicago, Ill., assignor to Expanded Metal Company, of Missouri. Machine for making slashed metallic screening	381,231	Apr. 17	1407	377	43	289
Golding, John F., assignor to S. M. Burroughs and H. S. Wellcome, London, England. Spatula for pill-making	392,025	Oct. 30	2599	707	45	541
Golding, John F., and G. B. Durkee, Chicago, Ill., assignors to Expanded Metal Company, of Missouri. Machine for slashing and expanding flat sheet metal to form meshes	381,230	Apr. 17	1405	376	43	289
Golding, William H., Boston, Mass. Machine for cutting printers' rules	379,777	Mar. 20	1341	358	42	1237
Golding, William H., Boston, Mass. Paper-cutter	385,803	July 10	703	182	44	145
Golding, William H., Chelsea, Mass. Machine for mitering printers' rules	379,778	Mar. 20	1344	358	42	1237
Goldman, Edward, Baltimore, Md. Machine for shaping fleecy masses	389,645	Sept. 18	1297	339	44	1330
Goldman, Leon, et al. (See Friede, Samuel M., assignor.)						
Goldrath, David. (See Green, William M., assignor.)						
Goldsmith, Edwin M., Philadelphia, Pa. Garment-chart	393,552	Nov. 27	2025	530	45	1014
Goldsmith, Gustavus A. (See Hoffman, Joseph, assignor.)						
Goldsmith, Herman, Brooklyn, N. Y. Combination-ruler	378,928	Mar. 6	95	28	42	985
Goldsmith, James, New York, N. Y. Provision-basket	387,639	Aug. 14	674	174	44	708
Goldsmith, Max S., Cincinnati, Ohio. Burglar-proof safe	389,717	Apr. 10	619	170	43	132
Goldsmith, Max S., Cincinnati, Ohio. Burglar-proof safe	391,041	Oct. 16	1216	322	45	250
Goldsmith, Nathaniel O. (See Weir, Partington, Goldsmith, and Harden.)						
Goldsmith, William H. (See Mathewson, Arthur W., assignor.)						
Goldsmith, William H., Fall River, Mass. Combined cotton-waste picker and lapper	385,455	July 3	183	48	44	36
Goldstein, Abraham. (See Bernstein and Goldstein.)						
Goldstein, David, assignor to H. Goldstein, San Francisco, Cal. Sample-tray	376,739	Jan. 24	1466	387	42	304
Goldstein, Henry. (See Goldstein, David, assignor.)						
Goldthwaite, William M., Chicago, Ill. Globe	386,399	July 17	1560	413	44	318
Golightly, Francis, J. K., and F., Jr., Hooley Hill, county of Lancaster, England. Lifting-machine for railways, &c.	391,141	Oct. 16	1354	361	45	275
Golightly, John K. (See Golightly, Francis, J. K., and F., Jr.)						
Goll, George, Philadelphia, Pa. Triturating-machine	386,703	July 24	2012	531	44	417
Goll, Henry A., Chicago, Ill. Oval angular valve	386,461	July 24	1672	411	41	353
Goll, Henry A., Chicago, Ill. Oval angular valve	386,462	July 24	1674	442	44	353
Gollehon, Joseph H., and W. P. Bonham, Marion, Va. Mail-bag catcher	388,274	Aug. 21	1674	448	44	910

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Gomber, Joseph C., Milwaukee, Wis. Photographic accessory.....	377,556	Feb. 7	310	79	42	554
Gongware, Turney H., and E. K. Hanley, Elmira, N. Y. Lock for bicycles .....	391,241	Oct. 16	1491	396	45	302
Gonon, Paul E. (See Diemer and Gonon.)						
Gonyer, Thomas C. (See Barsalou, Eugene, assignor.)						
Gooch, John, Brompton Road, county of Middlesex, England. Shop-front .....	381,361	Apr. 17	1597	427	43	327
Good, Isaac, Farmersville, Pa. Gate .....	388,857	Sept. 4	76	20, 21	44	1087
Good, John, Brooklyn, N. Y. Machine for balling twine, &c .....	390,361	Oct. 2	232	62	45	49
Good, John, Brooklyn, N. Y. Spindle and dier.....	391,959	Oct. 30	2503	678	45	522
Good, William E., Reading, assignor to Southwark Foundry and Machine Company, Phila- delphia, Pa. Compressing or blowing engine .....	381,876	Apr. 24	2370	{ 616 617 }	{ 43 43 }	495
Goodale, Stephen L., Saco, Me. Fertilizer .....	382,604	May 8	1107		43	731
Goode, Joseph T., Point Peter, Ga. Sweep .....	382,522	May 8	976	246	43	704
Goode, William H. C., assignor of one-half to W. E. Kilborn, Sidney, Ohio. Wheelbarrow .....	382,523	May 8	977	246	43	704
Goodell, Albert D., assignor to Miller's Falls Company, Miller's Falls, Mass. Spirit-level .....	391,242	Oct. 16	1492	396	45	303
Goodell Company. (See Oaks, William A. C., assignor.)						
Goodell, Henry, <i>et al.</i> (See Kelly, Wallace C., assignor.)						
Goodenough, Franklin L., <i>et al.</i> (See Heath, Watson A., assignor.)						
Goodenough, George A., Green Point, N. Y. Damper-regulator .....	377,557	Feb. 7	311	79	42	555
Goodenough, George A., Green Point, N. Y. Damper-regulator for furnaces .....	386,811	July 31	2180	574	44	458
Goodenough, Thomas, Woodside, assignor to Akbar Manufacturing Company, New York, N. Y. Pneumatic door-check .....	393,429	Nov. 27	1826	481	45	973
Goodenough, Thomas, Woodside, assignor to Akbar Manufacturing Company, New York, N. Y. Pneumatic door-check .....	393,430	Nov. 27	1828	481	45	973
Goodfellow, James, New York, N. Y. Appliance for railway-cars .....	383,456	May 29	2355	627	43	996
Goodfellow, James T. (See Hart and Goodfellow.)						
Goodfellow, James T., Troy, N. Y., assignor to Iron Car Company, Stamford, Conn. Me- talic platform for railway-cars .....	385,177	June 26	2000	513	43	1531
Goodfellow, John H., Troy, N. Y., assignor to Lamson Store Service Company, Boston, Mass. Store-service apparatus .....	381,545	Apr. 24	1881	496	43	400
Goodfellow, John H., Troy, N. Y., assignor to Lamson Store Service Company, Boston, Mass. Store-service apparatus .....	386,977	July 31	2449	644	44	508
Goodhue, George J., Stevens Point, Wis. Timber structure for mines .....	377,197	Jan. 31	2125	560	42	439
Goodhue, Henry M., Rochester, N. Y., assignor to W. S. King, Minneapolis, Minn. Last- ing-machine .....	388,554	Aug. 28	2076	558	44	992
Goodhue, Henry M., Rochester, N. Y., assignor to W. S. King, Minneapolis, Minn. Last- ing-machine .....	391,788	Oct. 30	2245	611	45	470
Goodhue, Henry M., Rochester, N. Y., assignor to W. S. King, Minneapolis, Minn. Last- ing-machine .....	393,066	Nov. 20	1305	340	45	862
Goodhue, James E., St. Charles, Ill. Automatic gate .....	375,993	Jan. 3	365	98	42	75
Goodman, Bernard, Cincinnati, Ohio. Tronsers .....	387,351	Aug. 7	225	59	44	615
Goodman Manufacturing Company, B. (See Smith, William E., assignor.)						
Goodnight, Isaac N., Kempton, assignor of one-half to J. T. Lineback, Frankfort, Ind. Fire- extinguisher .....	388,773	Aug. 28	2401	648	44	1053
Goodnow, Henry W., Worcester, Mass. Portable house .....	390,589	Oct. 2	548	145	45	110
Goodrich, Harry C., Chicago, Ill., assignor to T. Kane & Company, of Illinois. Blackboard- eraser .....	388,555	Aug. 28	2077	559	44	992
Goodrich, Joseph, Henry, assignor to M. A. Hawkes, Evanston, Ill., and J. C. McKee, Allegheny City, Pa. Foot-power bench-vice .....	378,362	Feb. 21	1529	400	42	810
Goodrich, Joseph, Jr. (See Hastings, Fred J., assignor.)						
Goodrich, Michael F., Jackson, Mich. Vehicle .....	388,408	Aug. 28	1881	502	44	954
Goodrich, R. Elmer, assignor of one-half to C. B. Bryant, New Haven, Conn. Sheet-metal joint .....	382,151	May 1	400	105	43	587
Goodrich, William C., Newburg, N. Y. Horse .....	376,876	Jan. 24	1683	440	42	343
Goodridge, William M., assignor to Western Electric Company, Chicago, Ill. Telephone- exchange-switch fastener .....	393,824	Dec. 4	127	35	45	1096
Goodsell, Charles H., Poughkeepsie, N. Y. Velocipede .....	377,610	Feb. 7	390	99	42	569
Goodsell, Charles H., Poughkeepsie, N. Y. Velocipede .....	384,150	June 5	456	126	43	1209
Goodspeed, George N. (See Parks, Levi N., assignor.)						
Goodspeed, Henry, San Marcos, Tex. Automatic fan .....	390,663	Oct. 9	646	173	45	137
Goodwin, Edward F., assignor to E. F. Goodwin, trustee, Taunton, Mass. Lock .....	383,522	May 29	2471	652	43	1018
Goodwin, Edward F., assignor to E. F. Goodwin, trustee, Taunton, Mass. Tag-holder .....	383,523	May 29	2473	653	43	1018
Goodwin Gas Store and Meter Company. (See Doty, Albert J., assignor.)						
Goodwin, George. (See Goodwin, John B. and G.)						
Goodwin, George A., and W. F. How, London, England. Foundry-ladle .....	377,747	Feb. 14	599	154	42	622
Goodwin, John B., assignor to W. P. Goodwin, Providence, R. I. Folding and swinging gate .....	381,064	Apr. 10	1157	309	43	232
Goodwin, John B., assignor to W. P. Goodwin, Providence, R. I. Folding and swinging gate .....	381,065	Apr. 10	1159	309	43	233
Goodwin, John B. and G., assignors to said G. Goodwin and W. P. Goodwin, Providence, R. I. Folding and swinging gate .....	381,066	Apr. 10	1161	{ 309 310 }	{ 43 43 }	234
Goodwin, John E., Brewerton, N. Y. Vehicle-gear .....	391,311	Oct. 16	1588	421	45	320
Goodwin, Le Roy C., <i>et al.</i> (See Lewis, George W., assignor.)						
Goodwin, M. A., <i>et al.</i> (See Howe, Thomas B., assignor.)						
Goodwin, William P. (See Goodwin, John B., assignor.)						
Goodwin, William P. (See Goodwin, John B. and G., assignors.)						
Goodwin, William T., Jr., Philadelphia, Pa. Machine for making pop-corn balls .....	377,303	Jan. 31	2293	{ 605 606 }	{ 42 42 }	469
Goodyear, Abraham L., <i>et al.</i> (See Goodyear, Robert B., assignor.)						
Goodyear, Albert, New Haven, Conn. Harvesting-machine .....	381,232	Apr. 17	1409	{ 378 379 380 }	{ 43 43 43 }	290
Goodyear, Frederick, <i>et al.</i> (See Biggin, Mary, assignor.)						
Goodyear, Lewis, Trumansburg, N. Y. Twine guide and cutter .....	383,120	May 22	1867	488	43	899
Goodyear, Lewis, Trumansburg, N. Y. Twine holder and cutter .....	394,168	Dec. 11	631	169	45	1201
Goodyear, Robert B., assignor of two-thirds to A. Taylor & Son and A. L. Goodyear, Phila- delphia, Pa. Stop-motion for knitting-machines .....	388,774	Aug. 28	2402	648	44	1053
Goodyear, Robert B., Philadelphia, assignor of one-half to Wolfenden, Shore & Co., Card- ington, Pa. Mechanism for operating shuttle-boxes in looms .....	391,312	Oct. 16	1588	421	45	320
Goodyear, Robert B., Philadelphia, assignor of one-half to Wolfenden, Shore & Co., Card- ington, Pa. Shedding mechanism for looms .....	393,067	Nov. 20	1307	340	45	862
Googins, James G., assignor of one-half to C. Rowell, Fairfield, Me. Mitering-machine .....	376,192	Jan. 10	662	176	42	137
Gookin, Allen S., <i>et al.</i> (See Demarest, Francis M., assignor.)						
Goossen, Henry. (See Wilson, Curtis, assignor.)						
Gordian Nut Lock Association. (See Castle, Orlando L., assignor.)						
Gordner, William J., Yonkers, N. Y., and J. F. Curran, Newark, N. J. Hat-setting machine .....	392,725	Nov. 13	811	206	45	757



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Gordon, Alexander, Detroit, Mich. Cigar-bunching machine	377,748	Feb. 11	601	155	42	623
Gordon, Edward P., assignor of one-half to H. Hobbs, Concord, N. H. Valve mechanism	391,960	Oct. 30	2505	678	45	522
Gordon, Edwin, Hyde Park, Mass. Railway-switch	377,713	Feb. 7	514	139	42	597
Gordon, Fred E., assignor to Taylor & Boggis Foundry Company, Cleveland, Ohio. Pawl-and-ratchet device for chain-pumps	392,206	Nov. 6	131	33	45	619
Gordon, Fred W., assignor to Gordon, Strobel & Laureau, (limited,) Philadelphia, Pa. Furnace-protecting	379,694	Mar. 29	1225	325	42	1213
Gordon, Fred W., assignor to Gordon, Strobel & Laureau, Philadelphia, Pa. Dust-catcher for blast-furnaces	381,771	Apr. 24	2129	575	43	461
Gordon, Fred W., assignor to Gordon, Strobel & Laureau, (limited,) Philadelphia, Pa. Brick masonry	385,804	July 10	706	183	44	115
Gordon, Fred W., assignor to Gordon, Strobel & Laureau, (limited,) Philadelphia, Pa. Blast-furnace	388,275	Aug. 21	1675	418	44	910
Gordon, George H., Sherbrooke, Quebec, Canada. Shovel	392,267	Nov. 6	132	33	45	619
Gordon, Isaac C., assignor of one-half to L. Seel, Charleston, S. C. Apparatus for roasting coffee	379,891	Mar. 20	1546	407	42	1275
Gordon, Isaac N., Bellefonte, Pa. Horse hay-rake	386,312	July 17	1445	382	44	295
Gordon, John H. (See Storle, Ole O., assignor.)						
Gordon, Lorenzo D., assignor of one-half to G. M. Lassefer and E. S. Hicks, Tenaha, Tex. Press	376,300	Jan. 10	809	214	42	161
Gordon, Meyer, assignor to S. Littenberg, Thomasville, Ga. Suspender attachment	389,072	Sept. 4	386	101	41	1146
Gordon, Orlando D., and J. C. Lucia, West Burke, Vt. Saw-mill dog	391,603	Oct. 23	1987	535	45	409
Gordon, Perkins A., Milan, Ohio. Drill-coupling	391,313	Oct. 16	1590	422	45	321
Gordon, Perkins A., Milan, Ohio. Receptacle for clothes in sleeping-cars	392,975	Dec. 4	153	95	45	1139
Gordon, Robert W., McKeesport, Pa. Mandrel for welding pipe-coupling sleeves	386,122	July 17	1163	309	44	242
Gordon, Strobel & Laureau. (See Gordon, Fred W., assignor.)						
Gordon, William, Melrose, Mass. Sole-channel-cementing apparatus	390,773	Oct. 9	805	214	45	166
Gordon, William, Melrose, assignor to A. Fuller, trustee, Boston, Mass. Sole-edge-burnishing machine	381,497	Apr. 17	1804	479	43	368
Gore, Henry A., et al. (See Ru Ton, Hiram W., assignor.)						
Gore, Henry A., assignor of two-thirds to E. W. Walker and H. W. Ruton, Goshen, Ind. Carpet-sweeper	380,201	Mar. 27	1991	533	42	1372
Gore, Henry A., assignor of two-thirds to E. W. Walker and H. W. Ru Ton, Goshen, Ind. Hand seed-sower	390,292	Oct. 2	127	37	45	29
Gore, Henry A., H. W. Ru Ton, and G. W. Kelley; said Kelley assignor to E. W. Walker, Goshen, Ind. Carpet-sweeper	383,806	May 29	2899	765	43	1104
Gorman, Charles H., and C. J. Fletcher, Birmingham, county of Warwick, England. Steering device for perambulators	377,102	Jan. 31	2010	526 527	42	414
Gorman, John J. (See Bradley, Henry A., assignor.)						
Gornly, John T., Troy, N. Y. Spoke-socket	385,412	July 3	111	31	44	24
Gornall, William H., Baltimore, Md. Store-service apparatus	390,853	Oct. 9	915	211	45	186
Gornall, William H., Baltimore, Md. Store-service apparatus	392,026	Oct. 30	2600	707 708	45	541
Gorrell, Charles L., Bel Air, and T. A. Hays, Glenview, Md. Shutter-worker	388,965	Sept. 4	231	62	44	1117
Gorrell, John B., assignor of two-thirds to W. J. and F. A. Hogue, La Otto, Ind. Windmill	384,756	June 19	1366	358	43	1398
Gorrell, Thomas S., and E. M. Tubbs, Pittsburg, Kans. Hay-press	381,007	Apr. 10	1069	283	43	216
Gorsuch, George W., assignor of one-third to P. H. Bridenbaugh, Martinsburg, Pa. Harrow	381,835	Apr. 24	2303	509	43	482
Gorsuch, Thomas, Gorsuch, Pa. Window-shade bracket	388,775	Aug. 28	2404	648	44	1054
Gorton, William E., Moline, Ill. Bolting-reel frame	382,152	May 1	401	105	43	587
Gose, Jacob C., Reelsville, assignor of one-half to R. H. Bowen, Putnamville, Ind. Motor	388,858	Sept. 4	78	21	44	1088
Goserd, Thorwald, Sturgeon Bay, Wis. Drill	394,169	Dec. 11	631	169	45	1201
Goshing, Henry J., assignor to G. and H. Barnett, Philadelphia, Pa. Machine for grinding chisels and other tools	388,966	Sept. 4	235	62, 63	44	1117
Gosling, Joseph W., Stockport, county of Chester, England. Sweat-band for hats	389,162	Sept. 25	1766	468	44	1432
Goss, Lucius, New York, N. Y. Machine for planing stereotype-plates	383,221	May 22	2004	525	43	926
Goss, Lucius, New York, N. Y. Stereotyping	390,774	Oct. 9	806	214	45	166
Goss Printing Press Company. (See Brookes, Leonard E., assignor.)						
Gostling, Charles R., Whitehall, Pa. Manufacturing hydraulic cement	387,588	Aug. 7	601	156	41	687
Gostling, Charles R., Whitehall, assignor of one-half to S. B. Wellington, Catasauqua, Pa. Kilm for burning hydraulic cement	384,905	June 19	1589	414	43	1430
Gott, Ernestus, Newton, Mass. Skiving-machine	375,811	Jan. 3	118	34	42	28
Gottfried, Mathews, Chicago, Ill. Mashing-machine	377,451	Feb. 7	156	36	42	525
Gottfried, Mathews, Chicago, Ill. Mashing-machine	389,880	July 31	2206	606 607	44	479
Gottfried, Mathew, Chicago, Ill. Apparatus for counting and recording the number of packages	386,879	July 31	2304	606	44	479
Gottschalk, Andrew, Martin's Ferry, Ohio. Collar for lamps	382,605	May 8	1108	285	43	731
Gouert, Charles W. (See Anderson, George V., assignor.)						
Gouert, Charles W. (See Robinson and Gouert.)						
Gould, Charles E., assignor of five-sixths to F. H. Cook, W. S. Reed, C. E. Dresser, Leominster, Mass., G. D. Burton, New Ipswich, N. H., and G. W. Weeks, Clinton, Mass. Machine for making rolled forgings	385,752	July 10	630	164 165	44	130
Gould, Charles K. (See Gould, George H., assignor.)						
Gould, Claude C., Batavia, assignor to Eastern Electrical Manufacturing Company, Wheatfield, N. Y. Telephone switch-board	392,326	Nov. 6	216	56	45	635
Gould, Demon R., and P. Baldwin, Chestertown, N. Y. Casket	385,707	July 10	563	146 147	44	117
Gould, Edwin A. (See Melvin, Francis J., assignor.)						
Gould, Eugene H., Beverly, Mass. Knife-blade holder	381,233	Apr. 17	1413	380	43	201
Gould, Forrest B., Milford, Mass. Apparatus for photographing by artificial light	381,151	June 5	418	126	43	1209
Gould, George P., Grass Valley, Cal., assignor of two-thirds to W. H. M. Cobb and D. F. Norton, Dayton, Nev. Ore-concentrating apparatus	385,551	July 3	325	84 85	44	66
Gould, George H., West Lebanon, Me. Window screen and fixture	378,587	Feb. 28	1863	492	42	884
Gould, George H., West Lebanon, assignor to himself and C. K. Gould, Readfield Depot, Me. Window-screen	387,781	Aug. 14	877	226	41	747
Gould, Holman, Brockton, Mass. Goring-pattern	390,664	Oct. 9	646	173	45	137
Gould, John C., Chicago, Ill. Nail-plate feeder	385,112	June 26	1912	477 478	43	1514
Gould, John D. (See Tisdale, Charles D., assignor.)						
Gould, John H., Philadelphia, Pa. Flexible pipe-coupling	381,008	Apr. 10	1070	294	43	216
Gould, Lucius D., Newark, N. J. Bevel	376,301	Jan. 10	810	214	42	165
Gould & Watson Company. (See Leo and Waite, assignors.)						
Goulden, Samuel, and J. Clarke, Toronto, Ontario, Canada. Burglar-alarm	382,972	May 15	1612	422	43	840

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Gourley, John F., T. G. Winey, and J. F. Hertzler, Lawrence, Kans. Core-drill.....	387,680	Aug. 14	737	189	44	720
Gouverneur Machine Company. (See Hartley, Sylvester F., assignor.)						
Goverts, Johann P., Viborg, Denmark, assignor to C. Quitmann, London, England. Vapor- burner.....	386,534	July 24	1785	{ 471 472 }	44	373
Gowan, John A., Butte City, Mont. Ter. Stamp-guide.....	391,527	Oct. 23	1884	506	45	387
Gowan, Thomas, <i>et al.</i> (See Kennedy, John F., assignor.)						
Gowen, Benjamin L. E., Boston, Mass. Bridle.....	389,701	Sept. 18	1380	361	44	1348
Gowen, Hayword B., assignor of one-half to J. R. Long, Harrison, Miss. Attachment for plows.....	393,151	Nov. 20	1421	371	45	884
Gowen, William, Wausau, Wis. Automatic offset for saw-mill carriages.....	383,457	May 29	2356	627	43	997
Gowen, William, Wausau, Wis. Band-saw mill.....	383,458	May 29	2358	638	43	997
Gowen, William, Wausau, Wis. Band-saw mill.....	383,459	May 29	2363	{ 628 629 }	43	998
Gowen, William, Wausau, Wis. Offsetting mechanism for saw-mill carriages.....	383,460	May 29	2365	629	43	999
Gowen, William, Wausau, Wis. Saw-mill.....	383,354	May 29	2366	{ 629 630 }	43	999
Grabau, Ludwig, Hanover, Prussia, Germany. Manufacture of aluminium fluoride.....	386,704	July 24	2013		44	417
Grabler, Peter, St. Louis, Mo. Drill-socket.....	383,289	May 22	2110	357	43	945
Grabler, Peter, St. Louis, Mo. Screw-cutting die and stock.....	383,354	May 22	2197	580	43	962
Gräbner, Johann C., Kupferhammer, and H. Ruperti, Brackwede, assignors to K. & Th. Möller, Kupferhammer, Prussia, Germany. Steam-engine.....	385,113	June 26	1915	488	43	1514
Grace, Edward. (See Parrshall, Charles H., assignor.)						
Grace, Henry S., assignor of one-half to C. W. Decker, San Francisco, Cal. Hand-piece for dental engines.....	380,433	Apr. 3	181	50	43	37
Graeff, Friedrich, Alkmaar, Holland. Producing dried extract of rennet.....	384,358	June 12	782		43	1277
Graetz, Ernst, Nensellerhausen, and E. F. Reinhold, Neustadt, near Leipsic, Saxony, Ger- many. Truck.....	377,486	Feb. 7	205	49, 50	42	535
Graetz, Frederick R., Rochester, Minn. Grain weighing, bagging, and tallying machine.....	379,273	Mar. 13	590	163	42	1083
Graetzel, Henry F., and F. N. Powell, Fullerton, Md. Harrow.....	387,412	Aug. 7	312	80	44	632
Graf, George W., Newark, N. J. Holder for cues and other articles.....	387,510	Aug. 7	463	122	44	663
Graff, Justin J., San Francisco, Cal. Cable-railway grip and crossing.....	387,782	Aug. 14	878	226	44	747
Graff, Justin J., San Francisco, Cal. Cable-railway grip and crossing device.....	394,356	Dec. 11	930	{ 244 245 }	45	1259
Graff, Louis, Memphis, Tenn. Steam-trap.....	386,633	July 24	1910	505	44	398
Graff, Matthew, Pittsburg, Pa. Manufacturing steel direct from the ore.....	393,553	Nov. 27	2026		45	1014
Graff, Matthew, Pittsburg, Pa. Reducing iron ore.....	393,554	Nov. 27	2027		45	1014
Graff, Thomas J., Pittsburg, Pa. Portable stove or range.....	395,131	Dec. 25	2181	562	45	1519
Graff, Wilhelm, Lesum, near Bremen, Prussia, Germany. Recovering the fatty consti- tuents from wash-waters.....	389,295	Sept. 11	769		44	1226
Grafstrom, Edward. (See Harrington and Grafstrom.)						
Grah, Emil, assignor of one-half to W. Grah, Jr., Toledo, Ohio. Electric valve-controller.....	386,463	July 24	1676	442	44	354
Grah, William, Jr. (See Grah, Emil, assignor.)						
Graham, Charles H., Unionville, assignor to Upson Nut Company, Farmington, Conn. Blank-feeder and gripping die for bolt-turning machines.....	394,170	Dec. 11	633	{ 169 170 }	45	1202
Graham, David F. (See Dyer and Graham.)						
Graham, David F., Columbus, Ohio. Horse hay-rake.....	395,132	Dec. 25	2183	562	45	1520
Graham, George H. (See Creelman, John A., assignor.)						
Graham, George F., South Chicago, Ill. Cast-metal crossing.....	391,961	Oct. 30	2506	679	45	523
Graham, Henry H., Chicago, Ill. Magazine fire-arm.....	386,535	July 24	1787	472	44	373
Graham, James, Detroit, Mich. Ear-rack for pens, pencils, &c.....	375,743	Jan. 3	35	10	42	10
Graham, James, Detroit, Mich. Combined pencil-rack and eyeglass-hook.....	381,692	Apr. 24	2087	546	43	442
Graham, James A., Milwaukee, Wis., assignor to Milwaukee Harvester Company. Grain- binder.....	383,462	May 29	2368	630	43	1000
Graham, John, Barnsbury, county of Middlesex, England. Apparatus for receiving tick- ets from ticket printing or numbering machines.....	381,126	Apr. 17	1269	{ 339 340 }	43	264
Graham, John C. (See Pearson, Fred, assignor.)						
Graham, John M., assignor to himself, S. C. M., and T. C. L. Graham, Pittsburg, Pa. Tele- phone-transmitter.....	381,234	Apr. 17	1414	381	43	291
Graham, John R. (See Snediker, Graham, McCollum, and Snediker.)						
Graham, John R., <i>et al.</i> (See McCollum, Franklin D., assignor.)						
Graham, Martha, <i>et al.</i> (See Graham, John M., assignor.)						
Graham, Oliver J., Spokane Falls, Wash. Ter. Washing-machine.....	381,362	Apr. 17	1599	428	43	328
Graham, Peter D., Corunna, Ind. Hand-plow.....	394,918	Dec. 18	1855	480	45	1448
Graham, Sarah C., <i>et al.</i> (See Graham, John M., assignor.)						
Graham, Seth. (See Rice and Graham.)						
Graham, Thomas C. L., <i>et al.</i> (See Graham, John M., assignor.)						
Graham, Thomas W., Dubuque, Iowa. Bolting-machine.....	390,224	Oct. 2	46	12	45	12
Graham, William A., Carlisle, Pa. Fishing-reel.....	386,705	July 24	2014	531	44	417
Graham, William M., Sparta, Wis. Wire-tightener.....	391,243	Oct. 16	1494	397	45	303
Grambs, Charles H., Dalton, Pa. Car-coupling.....	394,567	Dec. 18	1255	328	45	1333
Gramling, James T., and A. A. Adler, Mayersville, Miss. Poison-distributor for plants.....	394,264	Dec. 11	789	209	45	1231
Grammas, Anton G. (See Gregersen and Grammas.)						
Gran, Edward C. (See Bristol and Gran.)						
Gran, Edward C., Jordan, Minn. Heating-drum.....	386,978	July 31	2451	644	44	509
Granbery, David W., East Orange, N. J. Lamp-stand.....	390,076	Sept. 25	1948	517	44	1469
Grandjean, Eugene F. L., Bienne, Switzerland. Watch-regulator.....	394,919	Dec. 18	1856	480	45	1448
Grandy, Edward F., Boston, and G. W. Copeland, Malden, Mass., assignors to Mutual Last- ing Machine Company, Portland, Me. Machine for heading tack-strips.....	385,753	July 10	636	165	44	132
Grange, William. (See Smith, Orren M., assignor.)						
Granger, Almon M., Glenwood, Mass., assignor to Volker & Felthousen Manufacturing Company, Buffalo, N. Y. Valve.....	382,524	May 8	978	246	43	704
Granger, Alvan P., Denver, Colo. Machine for crushing or disintegrating ores, &c.....	376,877	Jan. 24	1685	440	42	343
Granger, Alvan P., Denver, Colo. Ore-crusher.....	376,878	Jan. 24	1686	{ 440 441 }	42	344
Granger, Alvan P., Denver, Colo., assignor of one-half to C. L. Ames and A. H. Frost, Chi- cago, Ill. Ore-separator.....	386,741	July 24	2063	{ 543 544 }	44	426
Granger, Edwin D., St. Louis, Mo., assignor to E. Granger, Granville, Ohio, and C. E. Allen, St. Louis, Mo. Galvanic belt.....	391,364	Oct. 16	1659	439	45	333
Granger, Edwin D., Omaha, Nebr., assignor to E. Granger, Granville, Ohio. Water and oil vaporizer and burner.....	392,510	Nov. 6	488	{ 122 123 }	45	687
Granger, Elizabeth. (See Granger, Edwin D., assignor.)						
Granger, Elizabeth, <i>et al.</i> (See Granger, Edwin D., assignor.)						
Grannis, George F., Vernon Centre, Minn. Door-hanger.....	385,708	July 10	564	147	44	117
Grant, Albert E., assignor of two-thirds to E. R. Wales and W. Bailey, Troy, N. Y. Fire- extinguishing apparatus.....	394,687	Dec. 18	1453	379	45	1370

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Grant, Charles N., assignor to himself and O. Brown, Haverhill, Mass. Toboggan-slide.	386,123	July 17	1164	310	44	242
Grant, Daniel, Bath, Ontario, Canada. Railway-crossing signal.	390,163	Sept. 25	2072	553	44	1494
Grant, David S., Lawrence, Mass. Shoe-nail strip.	377,804	Feb. 14	721	182	42	647
Grant, David S., Lawrence, Mass. Shoe-nail.	377,805	Feb. 14	721	182	42	647
Grant, Edmund S. (See Harden and Grant.)						
Grant, James, Goshen, Ind. Brick-mold.	385,552	July 3	332	85	44	66
Grant, John, Beverly, Mass. Fire-escape.	383,370	May 29	2534	669	43	1030
Grant, Joseph A. (See Drew and Grant.)						
Grant, Oscar B., Austin, Minn. Automatic hose-compler.	391,789	Oct. 30	2246	611	45	470
Grant, Oscar F., Allegheny, assignor of one-half to R. Floyd, Pittsburg, Pa. Fountain-pen.	394,171	Dec. 11	635	170	45	1202
Grant, Sidney A., Springfield, Mass. Rotary envelope-machine.	387,065	July 31	2568	675 676 677 680 681 682	44	531
Grant, Sidney A., Springfield, Mass. Envelope-machine.	392,916	Nov. 13	1083	682 683 684	45	812
Granville, Bernard, Chicago, Ill. Type-writing machine.	382,036	May 1	242	62	43	558
Grasnick, Louis W., Brooklyn, N. Y. Powder-duster.	385,456	July 3	185	49	44	37
Grassler, William F., assignor of three-fourths to W. G. Elliot, Williamsport, Pa. Automatic pipe-coupling for railway-cars.	383,288	May 22	2108	557	43	945
Grassman, John A., Florid, Ill. Drill.	377,249	Jan. 31	2211	583	42	454
Grater, Francis A., and E. H. Whitney, assignors to American Ship Windlass Company, Providence, R. I. Driving-gear for ships' windlasses.	386,812	July 31	2181	575	44	458
Grathwol, Leopold, Troy, N. Y. Tobacco-refining vat.	379,391	Mar. 13	763	206	42	1116
Grattan, Christopher, and L. U. Shippee, Stockton, Cal. Traveling thrasher.	389,884	Sept. 25	1659	439	44	1410
Grau, John M., Fort Leavenworth, Kans. Hinge.	388,400	Aug. 28	1882	503	44	954
Grauert, Edgar, New York, N. Y. Egg-boiler.	392,509	Nov. 6	486	122	45	687
Graumlich, Solomon M. and W. H., Duval, Ohio. Feed-regulator.	392,027	Oct. 30	2602	708	45	541
Graumlich, William H. (See Graumlich, Solomon M. and W. H.)						
Graves, E. Emmons. (See House, Henry A. and H. A., Jr., assignors.)						
Graves, Fred B. (See Graves, Lorenzo S. and F. B.)						
Graves, Fred B., Rochester, N. Y. Perpetual brick-kiln.	391,042	Oct. 16	1218	323	45	250
Graves, Fred B., Rochester, N. Y. Hydraulic apparatus for operating perpetual brick-kilns.	392,511	Nov. 6	489	123	45	688
Graves, Fred B., assignor to L. S. Graves & Son, Rochester, N. Y. Slack-cable stop.	385,754	July 10	640	166	44	133
Graves, Fred E., Rockford, Ill. Combination office-chair and operating-table.	377,806	Feb. 14	722	182 183	42	647
Graves, John, assignor of one-half to R. and T. E. Deeley, New York, N. Y. Sugar-wagon.	391,842	Oct. 30	2337	633	45	488
Graves, Julia A., Fair Haven, Vt. Butter-worker.	395,049	Dec. 25	2043	528	45	1493
Graves, Lorenzo S., Rochester, N. Y. Elevator-guide.	394,768	Dec. 18	1591	417	45	1400
Graves, Lorenzo S., assignor to L. S. Graves & Son, Rochester, N. Y. Slack-cable stop-motion for elevators.	386,464	July 24	1678	442	44	354
Graves, Lorenzo S. and F. B., Rochester, N. Y. Hydraulic elevator.	379,513	Mar. 13	951	257	42	1153
Graves, Peter S., Port Henry, N. Y. Extension-clamp.	386,065	July 10	1068	285	44	218
Graves & Son, L. S. (See Graves, Fred B., assignor.)						
Graves & Son, L. S. (See Graves, Lorenzo S., assignor.)						
Gravit, William, Elkhart, Ind. Mechanism for operating derailing switches and semaphores.	383,947	June 5	156	46	43	1150
Grawcock, James B., Chubbuck, Ind. Brick-kiln.	386,813	July 31	2182	575	44	458
Grawe, Herman C., St. Louis, Mo. Cable-grip detachor.	386,196	July 17	1262	337	44	263
Grawe, Herman C., St. Louis, Mo. Cable-crossing device for railway and other power-transmitting purposes.	393,228	Nov. 20	1532	401	45	907
Gray, Carroll E., Waukesha, Wis. Draft-regulator.	382,699	May 15	1249	326	43	767
Gray, Charles W., et al. (See Broyles, George E., assignor.)						
Gray, Edgar B. (See Cloyes and Gray.)						
Gray, Edwin L., assignor to Porter Manufacturing Company, Burlington, Vt. Extension-screen.	388,276	Aug. 21	1677	448 449 450 451 452	44	911
Gray, Elisha, Highland Park, Ill. Telegraphy.	386,814	July 31	2183	575 576 577 578 579 580 581	44	459
Gray, Elisha, Highland Park, Ill. Telautograph.	386,815	July 31	2194	579 580 581 582 583	44	459
Gray, Elisha, Highland Park, assignor to Western Electric Company, Chicago, Ill. Signaling dynamo-electric machine.	394,172	Dec. 11	636	170 171	45	1202
Gray, Frank M., Milwaukee, Wis. Combined pile-driving and well-drilling machine.	376,474	Jan. 17	1061	278	42	218
Gray, George, New York, N. Y. Muffled frame for school-slates.	381,363	Apr. 17	1600	428	43	328
Gray, George E. (See Gray, Harriet N., assignor.)						
Gray, Harriet N., assignor of one-half to G. E. Gray, Austin, Tex. Abdominal supporter.	395,050	Dec. 25	2044	528	45	1493
Gray, Hiram A. (See Paine, Gray, and Pettee.)						
Gray, Hiram A., New Haven, Conn., assignor to W. S. King, Minneapolis, Minn. Lasting-machine.	391,467	Oct. 23	1808	484	45	370
Gray, James, Lawrence, Mass. Reversible shoe-last.	395,133	Dec. 25	2185	563	45	1520
Gray, John F., Worcester, Mass., assignor to himself and J. C. Conroy, Providence, R. I. Boiler.	394,852	Dec. 18	1737	450	45	1426
Gray, William. (See Baines, Charles, assignor.)						
Gray, William C., New Amsterdam, Ind. Saw.	391,843	Oct. 30	2338	633	45	488
Gray, William D., assignor to E. P. Allis & Co., Milwaukee, Wis. Roller grinding-mill.	388,661	Aug. 28	2235	599	44	1022
Gray, William D., assignor to E. P. Allis & Co., Milwaukee, Wis. Roller grinding-mill.	388,967	Sept. 4	237	63	44	1117
Gray, William D., assignor to E. P. Allis & Co., Milwaukee, Wis. Grinding-mill.	388,968	Sept. 4	239	64	44	1118
Gray, William D., assignor to E. P. Allis & Company, Milwaukee, Wis. Bolting-reel.	393,825	Dec. 4	128	35	45	1097
Gray, William D., assignor to E. P. Allis & Company, Milwaukee, Wis. Bolting-reel.	393,826	Dec. 4	129	36	45	1097
Gray, William D., and R. Birkholz, Milwaukee, Wis., assignors to E. P. Allis & Company, of Wisconsin. Grinding-mill.	392,726	Nov. 13	813	206 207	45	757
Gray, William D., R. Birkholz, and E. Reynolds, Milwaukee, Wis. Wooden gear-tooth.	376,522	Jan. 17	1133	296	42	232
Gray, William H., assignor to Glen Cove Machine Company, (limited), Brooklyn, N. Y. Wood-planing machine.	377,250	Jan. 31	2213	584	42	454
Graydon Dynamite Projectile Cartridge and High Explosive Company. (See Graydon, James W., assignor.)						
Graydon, James W., assignor, by mesne assignments, to Graydon Dynamite Projectile Cartridge and High Explosive Company, Washington, D. C. Shell for explosives.	382,223	May 1	502	130	43	606
Graydon, James W., assignor, by mesne assignments, to Graydon Dynamite Projectile Cartridge and High Explosive Company, Washington, D. C. Shell.	382,226	May 1	508	131	43	607

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Graydon, James W., assignor, by mesne assignments, to Graydon Dynamite Projectile Cartridge and High Explosive Company, Washington, D. C. Contact-fuse for projectiles	382,227	May 1	511	131	43	607
Graydon, James W., assignor, by mesne assignments, to Graydon Dynamite Projectile Cartridge and High Explosive Company, Washington, D. C. Preparing explosives for use	382,228	May 1	512	132	43	608
Graydon, James W., assignor to Graydon Dynamite Projectile Cartridge and High Explosive Company, Washington, D. C. High-explosive shell	382,224	May 1	504	130	43	606
Graydon, James W., assignor to Graydon Dynamite Projectile Cartridge and High Explosive Company, Washington, D. C. High-explosive shell	382,225	May 1	506	131	43	607
Graydon, James W., assignor to Graydon Dynamite Projectile Cartridge and High Explosive Company, Washington, D. C. Explosive charge	382,229	May 1	513	132	43	608
Greaves, John, St. Louis, Mo. Demagnetizer	384,152	June 5	459	125 127	43	1209
Greeley, John P., Londonderry, N. H. Soap cake	389,296	Sept. 11	771	195	44	1326
Greely, Benjamin J., Boston, Mass. Stopper-extractor	379,010	Mar. 6	220	59	42	1008
Greely, Benjamin J., Boston, Mass. Garment-supporter	390,775	Oct. 9	807	214	45	166
Greely, Benjamin J., Boston, Mass. Trousers-stretcher	391,244	Oct. 16	1495	397	45	303
Greely, Benjamin J., Boston, Mass. Safety-pin	393,006	Nov. 20	1226	318	45	846
Green, Albert, Jamaica, assignor to A. Abrams, New York, N. Y. Base or support for furniture, &c	389,457	Sept. 11	1901	268	44	1270
Green, Alfred N., and J. G. Sutton; said Green assignor to M. E. Sutton, Lewistown, Ohio. Hoof-holder	391,893	Oct. 30	2408	651	45	503
Green, Charles H., et al. (See Green, Edgar M., assignor.)						
Green, Cyrel W., assignor of one-half to D. M. Schell, West Rutland, Vt. Stone-channeling machine	386,313	July 17	1447	383	44	296
Green, Edgar M., Somerville, assignor of two-thirds to A. H. Loring, West Scituate, and C. H. Green, Boston, Mass. Fare-register	389,702	Sept. 18	1380	362	44	1348
Green, George A., assignor to H. Sixbey, Mayville, N. Y. Eaves-trough hanger	390,122	Sept. 25	2011	536	44	1482
Green, George F., Kalamazoo, Mich., assignor of two-thirds to O. S. Kelley, Springfield, Ohio. Cash and parcel carrier	381,127	Apr. 17	1271	340	43	264
Green, George F., Kalamazoo, Mich., assignor of two-thirds to O. S. Kelley, Springfield, Ohio. Cash-carrier	386,314	July 17	1449	383	44	296
Green, George F., Kalamazoo, Mich., assignor of two-thirds to O. S. Kelley, Springfield, Ohio. Electrical cash and parcel carrier	388,859	Sept. 4	79	21	44	1088
Green, George F., Kalamazoo, Mich., assignor of two-thirds to O. S. Kelley, Springfield, Ohio. Railway for cash and parcel carriers	390,293	Oct. 2	129	37	45	29
Green, George G., Woodbury, N. J. Advertising-frame	390,473	Oct. 2	390	100	45	81
Green, Joseph W., Jr., and C. H. Caswell, Easthampton, Mass. Elastic cord	377,027	Jan. 31	1893	498	42	392
Green, Joshua J., New York, N. Y. Machine for disintegrating hemp, ramie, &c	388,662	Aug. 28	2237	600	44	1022
Green, Joshua J., New York, N. Y. Machine for disintegrating hemp, jute, ramie, &c	388,663	Aug. 28	2239	601	44	1022
Green, Joshua J., New York, N. Y. Machine for treating hemp, ramie, &c	388,664	Aug. 28	2241	604	44	1023
Green, Joshua J., New York, N. Y. Machine for treating hemp, ramie, &c	388,665	Aug. 28	2243	602	44	1023
Green, Oliver B. (See Rood, Edwin O., assignor.)						
Green, Paul M. (See Babcock, E. Stillman, assignor.)						
Green, Perley. (See Ellis, George W., assignor.)						
Green, Thomas, Newark, N. J. Shauk-stiffener for boots or shoes	393,468	Nov. 27	1901	497	45	986
Green, Walter T., assignor to J. Boyer, Clinton, Mo. Folding bed	394,688	Dec. 18	1454	379 380	45	1370
Green, William M., Muskegon, assignor of one-half to D. Goldrath, Muskegon County, Mich. Device for dressing and jointing the teeth of saws	376,647	Jan. 17	1327	348 349	42	268
Green, William W., Chicago, Ill. Spiral girder	379,217	Mar. 13	519	145	42	1070
Green, William W., assignor of one-half to B. F. Ryer, Chicago, Ill. Machine for bending spiral conveyers	393,505	Nov. 27	1948	509	45	997
Greenawalt, Franklin S. S., et al. (See Greenawalt, Peter C., assignor.)						
Greenawalt, Henry B., Millersville, and J. B. Urban, Conestoga, Pa. Reading-desk or book-holder	376,593	Jan. 17	1227	323	42	251
Greenawalt, Peter C., assignor of two-thirds to F. S. S. Greenawalt and J. F. Holder, Reading, Pa. Car-coupling	384,359	June 12	783	204	43	1277
Greenaway, Alfred, Louisville, Ky. Boiler attachment for stoves	390,854	Oct. 9	916	241 242	45	186
Greene, Edward F., and F. H. Hendryx, Bath, N. Y. Baking-pan	383,177	May 22	1941	509	43	914
Greene, Forrest D., et al. (See Leighton, Carleton F., assignor.)						
Greene, George B. (See Greene, Crofton, and Greene.)						
Greene, James G., Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Cutting mechanism for button-hole sewing-machines	376,475	Jan. 17	1063	278	42	218
Greene, John W., Oregon, Mo. Curtain-roller bracket and polo attachment	379,309	Mar. 13	650	176	42	1094
Greene, Lester D., J. Crofton, Walnut Grove, and G. B. Greene, Comtland, Cal.; said Lester D. Greene and J. Crofton assignors to said G. B. Greene. Spray-nozzle	390,474	Oct. 2	391	100	45	81
Greene, Merritt, Marshalltown, Iowa. Wire barb	380,884	Apr. 10	876	245	43	180
Greene, Noble T., Providence, R. I. Valve-gear for steam engines	389,146	Sept. 4	523	133	44	1169
Greene, Oscar C. (See Bullitt and Greene.)						
Greene, Patrick R., assignor of two-thirds to J. Claffy, Brooklyn, N. Y., and P. Byrne, Jersey City, N. J. Core for making hollow tiles	380,030	Mar. 27	1755	470	42	1324
Greene, Robert W., Savannah, assignor of one-half to S. P. Hamilton, Chatham County, Ga. Combined tag-holder and hasp-lock	378,393	Feb. 21	1570	412	42	818
Greene, Thomas S., Walnut Grove, Ala. Catarrh remedy	378,504	Feb. 28	1744		42	860
Greene, Thomas W., Lansing, Mich. Horse hay-rake	377,103	Jan. 31	2011	527	42	414
Greene, Wallace. (See Devore and Greene.)						
Greene, Wallace, et al. (See Devore, Levi M., assignor.)						
Greene, Webster M., assignor of one-half to F. W. Puffer, Lowell, Mass. Lamp-extinguisher	380,885	Apr. 10	877	235	43	180
Greene, William F., Troy, N. Y. Sweat-band for hats	386,634	July 24	1910	505	44	399
Greenebamm, Gustave M., et al. (See Allison, Frank, assignor.)						
Greenleaf, Moses D., and F. Harris, St. Louis, Mo. Advertising-stand	377,251	Jan. 31	2214	585	42	455
Greenhoot, David, Cincinnati, Ohio. Draw-bridge gate	377,807	Feb. 14	723	183	42	647
Greening, Samuel O., Hamilton, Ontario, Canada. Lathe-pitman for wire-weaving looms	383,879	June 5	41	14	43	1129
Greenish, Thomas. (See Glew, Frederick H., assignor.)						
Greenleaf, Miller T., Quincy, Ill. Machine for making fences	388,335	Aug. 21	1790	478 479	44	932
Greenleaf, Miller T., Quincy, Ill. Thermostatic valve for incubators	388,666	Aug. 28	2245	602	44	1023
Greenleaf, Oscar S. (See Edwards, William C., assignor.)						
Greenlee, Ralph S., Chicago, Ill. Mortising-machine	377,749	Feb. 14	604	155 156	42	623
Greenman, Corwin M., Wyandotte, Kans. Hatchway-gate for elevators	382,037	May 1	246	43	43	558
Greenman, Harvey H., Cortland, N. Y. Window-screen	378,090	Feb. 21	1116	292	42	733

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Greenough, George G., Fort Warren, Mass. Loading apparatus for cartridge-shells.....	376,148	Jan. 10	602	160	42	126
Greensfelder, Moses, Baltimore, Md. Cigar-bunching machine.....	384,757	June 19	1368	{ 358 359 }	43	1398
Greenway, James C., <i>et al.</i> (See Clerk, James D., assignor.)						
Greenwood, Alexander S., Cleveland, Ohio. Card-rack.....	384,439	June 12	894	233	43	1299
Greenwood, Marstin D., Hoosick Falls, N. Y. Oven for annealing metals.....	376,740	Jan. 24	1467	387	42	304
Greenwood, Michael, assignor to Hall Steam Pump Company, Wilmington, Del. Regulator for steam pumping-engines.....	382,860	Sept. 4	79	21, 22	44	1088
Greenwood, Peter F., Philadelphia, Pa. Horseshoe-blank.....	379,779	Mar. 20	1348	359	42	1238
Greenwood, William. (See Morley and Greenwood.)						
Greer, Howard, Lake View, assignor to himself and M. Sellers, Chicago, Ill. Spike.....	387,066	July 31	2574	{ 677 678 }	44	532
Greer, Howard, Lake View, assignor to himself and M. Sellers, Chicago, Ill. Railway-spike.....	387,067	July 31	2576	678	44	532
Greer, Howard, Lake View, assignor to himself and M. Sellers, Chicago, Ill. Railway-spike.....	387,068	July 31	2577	678	44	533
Gregersen, John A., and A. G. Grammas, Chicago, Ill. Rotary engine.....	385,805	July 10	706	{ 183 184 }	44	145
Greget, Louis, New York, N. Y. Propeller.....	387,783	Aug. 14	880	237	44	748
Gregg, John A., assignor to A. S. Parke, Bay City, S. S. Mitts and W. Merrill, East Saginaw, Mich. Milling-machine.....	390,164	Sept. 25	2074	553	44	1495
Gregg, Myron E., Washington, D. C. Projectile.....	376,302	Jan. 10	810	214	42	165
Gregg, Myron E., Washington, D. C. Magazine-gun.....	386,245	July 17	1355	357	44	279
Gregg, R. W. C. (See Nash, Edgar P., assignor.)						
Gregg, Richard, Aurora, Ind. Dumping-sled.....	388,192	Aug. 21	1548	412	44	883
Gregg Thornton F., New York, N. Y. Binding for books.....	391,604	Oct. 23	1988	546	45	409
Gregg, William L., Philadelphia, Pa. Brick-machine.....	385,614	July 3	424	{ 108 109 }	44	83
Gregg, William L., Philadelphia, Pa. Manufacturing brick.....	385,615	July 3	427	110	44	83
Gregg, William L., Philadelphia, Pa. Brick-kiln.....	393,641	Nov. 27	2158	{ 564 565 }	45	1040
Gregory, Alphonso L. (See Bell and Gregory.)						
Gregory, Charles P. (See Heisel, Henry, assignor.)						
Gregory, Paul J., Marilla, N. Y. Adjustable step for vehicles.....	388,861	Sept. 4	82	22	44	1088
Gregory, Robert B., <i>et al.</i> (See Moffat, George D., assignor.)						
Gregson Frederick, Springfield Place, Bradford, county of York, England. Life preserver or buoy.....	388,667	Aug. 28	2246	602	44	1024
Greider, Jacob M. (See Minnich, Simon B., assignor.)						
Grein, Otto F., Newark, N. J. Electric-circuit controller.....	381,440	June 12	894	233	43	1299
Greiner, Charles, and J. Grupp, Philadelphia, Pa. Automatic gas-light governor.....	378,050	Feb. 14	1060	277	42	714
Greiner, William R., Marlborough, N. Y. Egg-crate.....	387,227	Aug. 7	43	9	44	580
Greiner, William R., Marlborough, N. Y. Egg-crate.....	3-7,228	Aug. 7	44	10	44	580
Grelle, Henry W., assignor of two-thirds to F. J. Koerner and G. W. Byrne, Jr., New Orleans, La. Water-filter.....	381,067	Apr. 10	1167	310	43	235
Grellner, Christopher J., St. Louis, Mo. Barbed fence-strip.....	386,742	July 24	2067	544	44	426
Gresham, James, Stratford, near Manchester, England. Apparatus for applying sand to the driving-wheels of locomotives.....	381,837	Apr. 24	2305	602	43	483
Greth, August, San Francisco, Cal. Revolver.....	378,091	Feb. 21	1117	292	42	733
Grey, Robert, Struther's, Ohio. Apparatus for galvanizing metals.....	385,616	July 3	430	{ 110 111 }	44	84
Grey, William, San José, Cal. Fruit-drier.....	390,959	Oct. 9	1068	282	45	215
Grice, Alexander P., <i>et al.</i> (See Godwin, Le Roy C., assignor.)						
Grice, Alexander P., <i>et al.</i> (See Lewis, George W., assignor.)						
Gridley, Frank J., Chicago, Ill., assignor to F. G. Wheeler, New York, N. Y. Electric lock.....	386,066	July 10	1069	286	44	219
Gridley, Henry H., assignor of one-half to J. J. Bonney, Fulton, N. Y. Lawn-trimmer.....	391,742	Oct. 23	2173	587	45	446
Gridley, Nelson C. (See Olund, Emil, assignor.)						
Grier, George E. (See Roscoe and Grier.)						
Grier, William W., Hulton, Pa. Fifth-wheel.....	384,758	June 19	1370	359	43	1399
Gries, Wilhelm, Gummersbach, Prussia, Germany. Buckle or clasp.....	383,290	May 22	2112	537	43	946
Griesser, William, Chicago, Ill. Apparatus for moistening and cleaning air.....	386,777	July 24	2119	556	44	436
Griesser, William, Chicago, Ill. Malt-kiln floor.....	388,193	Aug. 21	1549	412	44	883
Griesser William, Chicago, Ill. Conveyor.....	388,194	Aug. 21	1550	412	44	884
Griesser, William, Chicago, Ill. Malt-turning apparatus.....	394,965	Dec. 25	1926	{ 497 498 }	45	1470
Griest, John M., Chicago, Ill., assignor to Singer Manufacturing Company of New Jersey. Attachment-holder for sewing-machines.....	381,546	Apr. 24	1882	497	43	401
Griest, John M., Chicago, Ill., assignor to Singer Manufacturing Company of New Jersey. Attachment-holder for sewing-machines.....	394,966	Dec. 25	1928	498	45	1471
Griest, John M., Chicago, Ill., assignor to Singer Manufacturing Company of New Jersey. Tuck-making attachment for sewing-machines.....	394,967	Dec. 25	1930	498	45	1471
Griest, John M., Chicago, Ill., assignor to Singer Manufacturing Company of New Jersey. Tuck creasing or marking attachment for sewing-machines.....	394,968	Dec. 25	1932	499	45	1472
Griest, John M., Chicago, Ill., assignor to Singer Manufacturing Company of New Jersey. Sewing-machine ruffler.....	394,969	Dec. 25	1934	499	45	1472
Griest, John M., Chicago, Ill., assignor to Singer Manufacturing Company of New Jersey. Guide for sewing-machines.....	394,970	Dec. 25	1936	499	45	1472
Griest, John M., Chicago, Ill., assignor to Singer Manufacturing Company of New Jersey. Tuck creasing or marking attachment for sewing-machines.....	394,971	Dec. 25	1937	499	45	1472
Griest, John M., Bayonne, N. J., assignor to Singer Manufacturing Company of New Jersey. Ruffling attachment for sewing-machines.....	394,972	Dec. 25	1939	500	45	1473
Griffin, Caleb H., assignor to E. M. McPherson, Boston, Mass. Dress-form.....	390,665	Oct. 9	648	173	45	137
Griffin, G. W., <i>et al.</i> (See Russell, Horace, assignor.)						
Griffin, George F., Boston, Mass. Life-saving harness for the use of firemen.....	393,555	Nov. 27	2028	531	45	1015
Griffin, George H., <i>et al.</i> (See Cleek, James D., assignor.)						
Griffin, George H., Abingdon, Va. Detachable pipe-coupling.....	391,314	Oct. 16	1591	422	45	321
Griffin, George H., Abingdon, Va. Nut-lock.....	394,537	Dec. 11	1189	309	45	1306
Griffin, George H., Abingdon, Va. Blank for washers.....	394,538	Dec. 11	1190	310	45	1306
Griffin, Heber C., assignor to Griffin Lock Company, Franklin Falls, N. H. Combination-lock.....	381,068	Apr. 10	1168	311	43	236
Griffin James. (See Maxon, Daniel M., assignor.)						
Griffin, John H., Brockton, assignor of two-thirds to G. W. Brown and C. H. Bayley, Boston, Mass. Raceway for rotary sewing-machine shuttles.....	392,795	Nov. 13	920	{ 225 236 }	45	778
Griffin Lock Company. (See Griffin, Heber C., assignor.)						
Griffin, Patrick, assignor of three-fourths to J. F. Leahy, E. Callahan, and J. Hackett, Utica, N. Y. Paving streets and roads.....	382,153	May 1	404	106	43	587



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Griffin, Patrick H., Brooklyn, N. Y. Lamp-shade holder	378,883	Mar. 6	39	11	42	974
Griffin, Theophilus, assignor of two-thirds to J. S. Williams and H. Bales, Sheridan, Ark. Cotton-cultivator	387,589	Aug. 7	602	156 157	44	687
Griffin, Thomas, and W. Mitchell, Noblesville, Ind. Wire fence	387,413	Aug. 7	313	89	44	632
Griffin, Thomas A., Chicago, Ill. Brake head and shoe	376,523	Jan. 17	1134	296	42	232
Griffin, Thomas A., Chicago, Ill. Filling-piece for railway-frogs	380,031	Mar. 27	1756	470	42	1325
Griffin, Thomas A., Chicago, Ill. Foot-guard for railways	382,063	May 1	315	82	43	571
Griffin, Thomas A., Chicago, Ill. Railway-frog	384,617	June 19	1163	307	43	1358
Griffin, Thomas A., Chicago, Ill. Rail-brace	393,152	Nov. 20	1422	371	45	885
Griffin, William, assignor of one-half to F. M. Jones, Fair Haven, N. Y. Potato-digging machine	393,007	Nov. 20	1226	319	45	846
Griffith, Amenzo, Springfield, and H. A. Burbank, Westfield, Mass. Ringing-off device for telephones	394,173	Dec. 11	638	171	45	1203
Griffith, C. M., et al. (See Harris, Noah, assignor.)						
Griffith, Henry E., Rochester, N. Y. Ash-sifter	383,571	May 29	2535	669	43	1031
Griffith, William, et al. (See Brongher, David J., assignor.)						
Griffith, William H., assignor to himself and C. C. Grundy, Bolivar, Tex. Car-coupling	386,582	July 24	1847	488	44	385
Griffiths, Griffiths M., Altoona, Pa. Planer attachment for planing curved surfaces	390,294	Oct. 2	130	37 38	45	29
Griffon, Emmanuel, Bordeaux, France. Apparatus for the propulsion of ships or vessels	381,225	Apr. 17	1416	381 382	43	291
Griggs, Albert C., Wilmington, Del. Train-signal	393,431	Nov. 27	1829	482	45	973
Griggs, Delos. (See Rinker, Clinton P., assignor.)						
Griggs, George H., Elizabethport, N. J. Dumping-car	383,463	May 29	2369	630	43	1000
Grignon, Rock, Houghton, Mich. Steering apparatus	394,174	Dec. 11	639	171 172	45	1203
Grill, Frederick, Philadelphia, Pa. Device for securing cut tobacco	380,256	Mar. 27	2064	552	42	1388
Grime, John, assignor, by mesne assignments, of one-half to J. F. Williamson, Minneapolis, Minn. Valve-gear for engines	389,382	Sept. 11	886	231 232	44	1249
Grimes, Franklin, Richland Station, Pa. Land-roller	383,807	May 29	2900	765	43	1104
Grimes, William B., Enfield, Ohio. Churn	385,617	July 3	431	111	44	84
Grimm, Paul H. (See Duryea and Grimm.)						
Grimm, Paul H., assignor of one-half to J. Duryea, Glen Cove, N. Y. Steam boiler-tube cleaner	376,820	Jan. 24	1602	420	42	328
Grimmesey, Orris R., et al. (See Winfield, William C., assignor.)						
Grimmett, Samuel T., West Plains, Mo. Mole-trap	390,362	Oct. 2	235	63	45	49
Grinberg, Paul J., New York, N. Y. Oil-stove	384,618	June 19	1163	307 308	43	1358
Grinnell, Adelbert J., Oswego, N. Y. Machine for forming paper vessels	385,553	July 3	328	85	44	66
Griscom, Ferdinand R., Annapolis, Md. Planting implement	389,925	Sept. 25	1723	456	44	1423
Griscom, William W., Haverford College, Pa. Electric-lighting system	389,297	Sept. 11	772	195	44	1226
Griscom, William W., Haverford College, Pa. Automatic circuit-changer for secondary batteries	391,468	Oct. 23	1810	484	45	371
Griscom, William W., Haverford College, Pa. Switch or circuit-changer	393,365	Nov. 27	1739	460	45	956
Griscom, William W., Haverford College, Pa. Distribution of electricity by secondary batteries	393,470	Nov. 27	1902	498	45	987
Griscom, William W., Haverford College, Pa. Train-lighting by secondary batteries	393,757	Dec. 4	35	11	45	1079
Griscom, William W., Haverford College, Pa. Electro-magnetic switch	394,485	Dec. 11	1106	288	45	1291
Griscom, William W., Haverford College, Pa., assignor to Electrical Accumulator Company, of New York. Making secondary-battery plates	393,755	Dec. 4	33	11	45	1078
Griscom, William W., Haverford College, Pa., assignor to Electro-Dynamic Company of Philadelphia. Dynamo-electric machine	393,469	Nov. 27	1902	498	45	986
Griscom, William W., Haverford College, assignor to Electro-Dynamic Company of Philadelphia, Philadelphia, Pa. System of electric lighting	393,756	Dec. 4	34	11	45	1078
Griscom, William W., Haverford College, assignor to Electro-Dynamic Company, Philadelphia, Pa. Switch or circuit-changer	394,568	Dec. 18	1257	329	45	1333
Grisez, Emile. (See Williamson, George B., assignor.)						
Grissoom, Abram J., White Wright, Tex. Automatic grain-measuring machine	380,718	Apr. 10	620	170 171	43	133
Griswold, Alanson B., and J. M. Bradbury, Bunker Hill, Kans. Automatic oiler	379,643	Mar. 20	1147	303 304	42	1197
Griswold, Catharine A., New York, N. Y. Corset. (Reissue)	10,935	June 5	575	157	43	1333
Griswold, Catharine A., New York, N. Y. Corset. (Reissue)	10,939	June 19	1655	430	43	1452
Griswold, Catharine A., New York, N. Y. Corset	392,195	Nov. 6	29	8	45	600
Griswold, Catharine A., New York, N. Y. Corset	392,196	Nov. 6	30	8	45	600
Griswold, Catharine A., New York, N. Y. Corset	392,197	Nov. 6	31	8	45	600
Griswold, Catharine A., New York, N. Y. Corset	392,198	Nov. 6	32	8	45	600
Griswold, Catharine A., New York, N. Y. Corset	392,199	Nov. 6	34	9	45	601
Griswold, Catharine A., New York, N. Y. Corset	392,200	Nov. 6	35	9	45	601
Griswold, Catharine A., New York, N. Y. Corset	392,201	Nov. 6	36	9	45	601
Griswold, Daniel F. (See Armitage, David M., assignor.)						
Griswold, George L., Bellows Falls, Vt. Journal-bearing	390,590	Oct. 2	550	145	45	111
Griswold, George M., New Haven, Conn. Machine for making and printing tubes or slunks for paper boxes	387,953	Aug. 14	1151	310 311	44	801
Griswold, Horace P., Providence, R. I. Submarine torpedo-boat	388,862	Sept. 4	83	22, 23	44	1089
Griswold, J. Wool, Troy, N. Y. Barbed wire	377,232	Jan. 31	2215	585	42	455
Griswold, J. Wool, Troy, N. Y. Fence-post	378,051	Feb. 14	1061	278	42	714
Griswold, J. Wool, Troy, N. Y. Barb-wire fence	380,3-8	Apr. 3	124	36	43	26
Griswold, James D., assignor to R. H. Thompson and H. D. Norris, Brooklyn, N. Y. Box	385,924	July 10	884	234	44	181
Griswold, John W., Troy, N. Y. Fence-post	391,790	Oct. 30	2248	612	45	471
Griswold, Lewis F. (See Parker and Griswold.)						
Griswold, Stephen M., Brooklyn, N. Y. Handkerchief-holder	382,805	May 15	1389	364	43	795
Groat, Edwin, et al. (See Wright, Aaron, assignor.)						
Groat, Elias, San Francisco, Cal. Machine for disintegrating bituminous substances	383,973	May 15	1613	422	43	840
Groat, Louis W., et al. (See Wright, Aaron, assignor.)						
Groebcker, Paul, Artirn, Saxony, Germany. Apparatus for testing grain	381,469	Apr. 17	1763	471	43	359
Groff, Fayette, Saratoga Springs, N. Y. Child's vehicle	383,918	June 5	157	46	43	1150
Groner, J. A. C. (See Reynolds, Henry C., assignor.)						
Gronert, William J., and C. G. Conn, Elkhart, Ind. Music-folio	376,648	Jan. 17	1329	349	42	268
Groom, Thomas, Highfield House, Wellington, county of Salop, England. Wheel	384,033	June 5	284	80	43	1175
Grosdon, John A., New York, N. Y. Sectional steam-boiler	384,313	June 12	705	187 188	43	1265
Gross, August. (See Klinik, Pinkowski, and Gross.)						
Gross, Augustus, Newcastle, New South Wales. Electric alarm for ships' compasses	381,693	Apr. 24	2087	546 547	43	442
Gross, Harry, Philadelphia, Pa. Heart-shield	389,745	Sept. 18	1444	378	44	1361

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Gross, Henry, assignor to Chicago Safe and Lock Company, Chicago, Ill. Safety-deposit box.....	386,400	July 17	1561	413	44	318
Gross, Hermann C., assignor of two-thirds to C. Stuppe and P. Elz, Milwaukee, Wis. Rail-way-car.....	378,675	Feb. 28	1990	527	42	908
Gross, Magnus, New York, N. Y. Apparatus for manufacturing gas.....	392,553	Nov. 6	551	139	45	700
Gross, Magnus, New York, N. Y. Apparatus for manufacturing gas.....	392,554	Nov. 6	552	139	45	700
Gross, Magnus, New York, N. Y. Apparatus for manufacturing gas.....	392,555	Nov. 6	553	140	45	701
Gross, Magnus, New York, N. Y. Mixing and injecting apparatus for making gas.....	393,977	Dec. 4	356	96	45	1139
Gross, Magnus, assignor to J. M. Moser, C. Heidenheimer, J. Koch, M. Gross, Jr., and L. Heidenheimer, New York, N. Y. Making extracts.....	393,976	Dec. 4	354	96	45	1139
Grosselin, Henry N., Pils, Sedan, France. Machine for napping cloth.....	377,151	Jan. 31	2068	513	42	427
Grossmann, Jonas, Berlin, Germany. Hygienic bandage.....	387,159	July 31	8715	712	44	555
Grossmayer, Max, Florence, Colo. Bull-wheel for drilling-rigs.....	391,791	Oct. 30	2249	612	45	471
Grosvenor, Edgar A. (See Porter and Grosvenor.)						
Grote, Herman. (See Pinetta, José, assignor.)						
Grothaus, Frederick E., San Juan Mill, Tex. Lawn-mower.....	389,804	Sept. 18	1523	403	44	1378
Grotholtman, Henry A., Fort Wayne, Ind. Sash-lift.....	390,666	Oct. 9	649	173	45	137
Grounds, William J., Watervliet, N. Y. Snow-scraper.....	389,298	Sept. 11	773	196	44	1327
Grout, William L., and E. L. Bowers, Orange, Mass. Drill or reamer holder.....	376,476	Jan. 17	1064	278	42	219
Groux, Emile, assignor of one-third to S. Hirsch, Wilkes-Barre, Pa. Striking mechanism for clocks.....	377,935	Feb. 14	900	231	42	683
Grove, Alfred H. (See Wilhelm, Jacob, assignor.)						
Grove, David, Berlin, Germany. Water-heater.....	384,202	June 5	537	146	43	1225
Grove, David, Berlin, Germany. Air-heater.....	384,203	June 5	538	147	43	1225
Grove Electric Company. (See Morris, Henry G., assignor.)						
Grove, Jacob H. (See Schlumme, Henry, assignor.)						
Grove, Michael B., Sheldon, Mo. Fence-post.....	394,973	Dec. 25	1941	500	45	1473
Grove, William H., assignor of one-half to C. R. Dresbach, Circleville, Ohio. Grain weighing, bagging, and registering device.....	377,428	Feb. 7	124	27	42	518
Grove, William H., assignor of one-half to C. R. Dresbach, Circleville, Ohio. Wheel-planter.....	382,644	May 8	1160	299	43	741
Groves, Arthur, La Due, Mo. Clothes-wringer.....	389,805	Sept. 18	1524	403	44	1378
Groves, Oliver F., Alda, Nebr. Table.....	379,780	Mar. 20	1349	359	42	1238
Grovesteen, Milton W., and F. G. Jahn, New York, N. Y. Electric-circuit-closing device.....	384,570	June 12	1092	287	43	1336
Grubb, Thomas, Bancroft, Iowa. Broadcast seed-sower.....	388,485	Aug. 28	1986	533	44	976
Grubbs, Albert M., Mentone, Ind. Railway-crossing.....	386,429	July 17	1617	424	44	333
Gruber, John P., Jersey City, N. J. Filter.....	388,863	Sept. 4	89	24	44	1090
Grubinski, Florian, Warsaw, Russia. Loom-shuttle-threading device.....	386,816	July 31	2207	581	44	461
Grunmon, John W., East Orange, N. J., assignor to India Rubber Comb Company, New York, N. Y. Rosette for harness.....	377,750	Feb. 14	606	156	42	623
Grunmon, Robert S., assignor to Sargeant Manufacturing Company, Newark, N. J. Manufacture of harness-mountings.....	384,571	June 12	1094	287	43	1337
Grundy, C. C. (See Griffith, William H., assignor.)						
Grubbit, Jacques, South Shields, county of Durham, England. Dyeing aniline-black.....	391,315	Oct. 16	1593	.....	45	321
Grupp, Jacob. (See Greiner and Grupp.)						
Grunson, Hermann, Buckau, Prussia, Germany. Armor-turret.....	376,985	Jan. 24	1826	480	42	371
Grunson, Hermann, assignor to Grusonwerk, Buckau-Magdeburg, Prussia, Germany. Operating mechanism for turret-guns.....	388,356	Aug. 21	1796	480	44	933
Grunsonwerk. (See Grunson, Hermann, assignor.)						
Grunsonwerk. (See Rüstel, Carl, assignor.)						
Gryzbowski, Julian T., assignor of one-half to R. E. Butterworth and J. Lowe, Grand Rapids, Mich. Cutter-head for grooving machines.....	388,410	Aug. 28	1883	503	44	954
Gryzbowski, Julian T., assignor of one-half to R. E. Butterworth and J. Lowe, Grand Rapids, Mich. Cutter-head.....	394,175	Dec. 11	641	172	45	1203
Guastavino, Rafael, New York, N. Y. Fire-proof building.....	383,050	May 15	1756	454	43	868
Gubbins, Robert J. (See Stuart and Gubbins.)						
Guels, Herman, assignor to American Brake Company, St. Louis, Mo. Valve for air-brakes.....	384,686	June 19	1265	332	43	1378
Guels, Herman, assignor to American Brake Company, St. Louis, Mo. Air-brake system.....	384,687	June 19	1267	333	43	1378
Guels, Herman, assignor to American Brake Company, St. Louis, Mo. Piston-rod packing.....	390,225	Oct. 2	49	13	45	13
Guels, Herman, assignor to American Brake Company, St. Louis, Mo. Valve for fluid-pressure brakes.....	390,226	Oct. 2	50	13	45	13
Guels, Herman, assignor to American Brake Company, St. Louis, Mo. Fluid-pressure brake.....	391,962	Oct. 30	2508	679	45	523
Guels, Herman, assignor to American Brake Company, St. Louis, Mo. Fluid-pressure brake.....	393,367	Nov. 27	1740	461	45	956
Guerber, Frederick S., Allentown, Pa. Automatic block-signal system for railways.....	378,306	Feb. 21	1450	378	42	793
Guérin, Paul O., New Orleans, La. Shutter-fastener.....	379,695	Mar. 20	1226	326	42	1213
Guernsey, Jane M. (See Beals, Ebenezer, assignor.) (Reissue.)						
Guerrant, John W. (See Coote, William H., assignor.)						
Guest, John H., Brooklyn, N. Y. Fire-telegraph.....	388,357	Aug. 21	1801	481	44	934
Guest, John H., Brooklyn, N. Y. Automatic fire-telegraph.....	388,358	Aug. 21	1806	482	44	934
Guice, George A., Meadville, Miss. Car-coupling.....	394,357	Dec. 11	933	245	45	1260
Guidinger, Joseph, Hika, Wis. Automatic grain-scale.....	378,363	Feb. 21	1531	401	42	810
Guier, Michel, Paris, France. Axle-box for carriages.....	389,963	Sept. 25	1767	468	44	1473
Guile, George W., Three Mile Bay, N. Y. Metallic fence.....	383,223	May 22	2005	522	43	937
Guilmartin, John F., Troy, Ala., assignor to E. T. Comer, Savannah, Ga. Seed-planter.....	376,243	Jan. 10	733	195	42	150
Guinn, Jesse H. (See Bennett, Abner H., assignor.)						
Gülcher, Robert J., Berlin, Germany. Thermo-electric generator.....	383,464	May 29	2370	631	43	1000
Gulickson, George, Chicago, Ill. Grate and furnace for steam-boilers.....	380,719	Apr. 10	623	171	43	133
Gulledge, George W., Briartown, Indian Ter. Skimmer.....	391,894	Oct. 30	2409	652	45	503
Gulley, Calvin D. (See Stanley and Gulley.)						
Guliford, Harvey, Marion, Ind. Sod-cutter.....	390,295	Oct. 2	131	38	45	30
Gulliver William C., et al., administrators. (See Hotchkiss, Benjamin B.)						
Gummer, Charles M., assignor to Gem City Stove Company, Dayton, Ohio. Gas-burner for stoves.....	391,365	Oct. 16	1661	439	45	333
Gumz, Albert, Fort Howard, Wis. Cutting apparatus for reapers and mowers.....	391,142	Oct. 16	1355	362	45	275
Gunckel, Winfield O., Terre Haute, Ind. Conveyor.....	375,931	Jan. 3	2-0	76	42	58
Gunckel, Winfield O., Terre Haute, Ind. Boiler-feed-regulator.....	394,569	Dec. 18	1258	329	45	1333
Gunn, Daniel B., Red Oak, Iowa. Glove.....	378,834	Feb. 28	2231	594	42	954
Gunn, E. William, New Woodstock, N. Y. Rake.....	393,105	Nov. 20	1356	333	45	872

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette	
			Spec.	Drig.	Vol.	Page.
Gunn, John C., <i>et al.</i> (See Bartlett, Thomas J., assignor.)						
Gunniss, John T., Hancock, Mich. Bolt	389,646	Sept. 18	1299	340	44	1331
Guntz, George, Wilkes-Barré, Pa. Electric railway-station indicator	378,440	Feb. 28	1655	431 435	42	841
Gurney, Charles H., Waltham, assignor to J. B. Fuller, Boston, Mass. Tag	387,160	July 31	2716	712	44	556
Gurney Company, E. & C. (See Gurney and Peniston, assignors.)	376,033	Jan. 3	432	115	42	87
Gurney, David E. (See Davis and Gurney.)						
Gurney, Edward, Toronto, Ontario, Canada. Water-heater	389,458	Sept. 11	1003	268	44	1270
Gurney, Edward, Toronto, Ontario, Canada. Heater	389,459	Sept. 11	1003	268	44	1271
Gurney, Edward, Toronto, Ontario, Canada. Sectional boiler	389,460	Sept. 11	1004	269	44	1271
Gurney, Edward, Toronto, Ontario, Canada. Sectional boiler	389,461	Sept. 11	1005	269	44	1271
Gurney, Edward, Toronto, Ontario, Canada. Sectional boiler	389,462	Sept. 11	1005	269	44	1271
Gurney, Edward, and C. W. Peniston, assignors to E. & C. Gurney Company, (limited,) Toronto, Ontario, Canada. Temperature-regulator	378,935	Feb. 28	2232	594	42	954
Guss, Orrange G., Lima, Ohio. Turret-head for lathes	387,559	Aug. 7	552	143	44	679
Guss, Orrange G., assignor of one-half to J. R. Ashton, Lima, Ohio. Pipe-testing apparatus	394,974	Dec. 25	1942	500	45	1473
Gustafson, Axel R., Marinette, Wis. Blacking-brush	376,879	Jan. 24	1690	441	42	345
Gustafson, Peter O., Rock Island, Ill. Lumber-piler	392,727	Nov. 13	815	207	45	758
Gustafson, Wald, London, England. Aerial navigation	378,364	Feb. 21	1533	401	42	810
Gustavel, Louis G., Monticello, Ind. Hame-tug	394,358	Dec. 11	934	245	45	1260
Gustavson, Charles J., Salt Lake City, Utah Ter. Sweat-pad hook	377,153	Jan. 31	2070	543	42	427
Gustavson, Charles J., Salt Lake City, Utah Ter. Sweat-pad	383,051	May 15	1758	454	43	868
Gustavson, Victor, Chicago, Ill. Vehicle-transporter	379,011	Mar. 6	220	59	42	1008
Gustin, Albert J. (See Bart, Ransom K., assignor.)						
Gustin, George A., Washington, D. C. Apparatus for automatically regulating the flow and temperature of fluids	390,960	Oct. 9	1069	283	45	216
Gustin, Jonathan M., Wilmington, Ohio. Opening and closing drive-gates	389,219	Sept. 11	631	162	44	1199
Gustlin, Abram, Boone, Iowa. Water-power	383,291	May 22	2113	558	43	946
Guthrie, George E. (See Eden and Guthrie.)						
Guthrie, James F., Jr., Somerville, assignor of one-half to T. C. Ashley, Boston, Mass. Spring-dividers	384,971	June 26	1685	437	43	1467
Gutierrez, Manuel F., Altoona, Pa. Piston-packing	393,556	Nov. 27	2029	531	45	1015
Guyer, Clinton, Muncy, Pa. Weather-strip	391,963	Oct. 30	2510	680	45	523
Guyer, Hezekiah. (See Rickards and Guyer.)						
Guyer, Nelson, Lima, Ohio. Lamp-supporting attachment	376,950	Jan. 24	1782	468	42	363
Gyllenberg, John A. v., Hecla, Mont. Ter. Wrench	392,152	Oct. 30	2809	762	45	581
Haag, John C., Lansing, Mich. Machine for making picket fences	380,482	Apr. 3	255	70	43	52
Haag, Julius A., Indianapolis, Ind. Sign	390,776	Oct. 9	807	214	45	166
Haag, Julius A., Indianapolis, Ind. Sign	390,777	Oct. 9	808	215	45	167
Haag, Lewis R. (See Shurtleff and Haag.)						
Haak, Jerry. (See Loeb and Haak.)						
Haarlander, August, Allegheny City, Pa. Water-closet tank	385,709	July 10	565	147	44	118
Haas, Christian, Chicago, Ill. Elevator-carriage	377,751	Feb. 14	607	156	42	624
Haas, Frederick. (See Miles and Haas.)						
Haas, John A., Mendon, Mich. Double-tree-equalizer	392,862	Nov. 13	1015	260	45	799
Haas, John E., <i>et al.</i> (See Boore, Lewis, assignor.)						
Haas, Levi, Chester, Pa. Railway-tie	389,464	Sept. 11	1007	270	44	1271
Haas, Levi, Chester, Pa. Railway-tie	391,704	Oct. 23	2127	574	45	437
Haas, Levi, Chester, Pa. Fuel compound	394,482	Dec. 11	1107	45	45	1291
Haas, William, New York, N. Y. Creating draft in chimneys	375,995	Jan. 3	367	98	42	75
Haas, William, San Francisco, Cal. Street-sweeping machine	378,002	Feb. 14	998	261	42	702
Haas, William W., Newton, Kans. Calendar	392,327	Nov. 6	221	57	45	636
Haase, Leo G., Oak Park, Ill. Machine for making cement pipes	382,974	May 15	1614	422 423	43	841
Haase, Leo G., Oak Park, Ill. Cement-pipe mold	386,979	July 31	2152	614 645	44	509
Haberman, Frederick, New York, N. Y. Sheet-metal vessel	390,591	Oct. 2	551	146	45	111
Haberman, Frederick, New York, N. Y. Handle	391,316	Oct. 16	1594	422	45	321
Habermuth, Robert, and R. Brenner, New York, N. Y. Retort-door	392,202	Nov. 6	37	9	45	601
Hachenberg, Louis, New York, N. Y. Fender for street-cars	394,975	Dec. 25	1943	501	45	1474
Hachfield, Albert E., <i>et al.</i> (See Heimann, Salomon, assignor.)						
Hack, Emily F. (See Hack, Henry S., assignor.)						
Hack, Henry S., Taunton, Mass. Card-hanger	384,034	June 5	285	80	43	1175
Hack, Henry S., assignor, by mesne assignments, to E. F. Hack, Taunton, Mass. Calendar	387,784	Aug. 14	881	228	41	748
Hack, Henry S., assignor, by mesne assignments, to E. F. Hack, Taunton, Mass. Calendar or memorandum-roll	388,411	Aug. 28	1884	503	44	954
Hack, Henry S., assignor, by mesne assignments, to E. F. Hack, Taunton, Mass. Calendar	391,705	Oct. 23	2127	574	45	437
Hackaley, John, <i>et al.</i> (See Hackaley, William, assignor.)						
Hackaley, John, Fall River, Mass. Spinning-mule	375,932	Jan. 3	280	76	42	58
Hackaley, William, assignor of two-thirds to J. Hackaley and J. P. Hillard, Fall River, Mass. Spinning-mule	381,069	Apr. 10	1169	311	43	236
Hackenberg, Julius, Passaic, N. J. School-slate	388,129	Aug. 21	1451	389	44	866
Hacker, William, trustee. (See Dolan, Edward J., assignor.)						
Hackett, Edward F. (See Tittle, Daniel J., Jr., assignor.)						
Hackett, James, Taunton, Mass. Ink-distributing device for printing-machines	378,441	Feb. 28	1657	435	42	842
Hackett, John, <i>et al.</i> (See Griffin, Patrick, assignor.)						
Hackett, John C. (See Hather, Jacob, assignor.)						
Hackett, John C., St. Louis, Mo. Hame-fastener	383,727	May 29	2759	797	43	1078
Hackett, John C., Belleville, Ill. Double-loop buckle	385,618	July 3	433	112	44	84
Hackett, Seth, Bronson, Mich. Hand-planter	385,511	July 3	268	68	44	54
Hacklander, Edwin, Welcome, Minn. Calf-weaner	393,068	Nov. 20	1509	341	45	862
Hackley, Henry W., Kokomo, Ind. Wrench	377,827	Feb. 14	747	189	42	651
Hackley, Levant M., <i>et al.</i> (See Schad, Barnhard, assignor.)						
Hackney, Herbert, Topeka, Kans. Steam-boiler	387,511	Aug. 7	464	122	44	663
Haddock, Judson F. (See Terrill, Delaney E., assignor.)						
Hadden, Sewell T., New York, N. Y. Sewer-trap	391,143	Oct. 16	1356	362	45	276
Haddock, George R. (See Barrett, Edward, assignor.)						
Haddock, Worcester, assignor of one-half to Stille & Duhlmeier, Cincinnati, Ohio. Machine for cutting moldings	380,434	Apr. 3	183	50, 51	43	37
Haddow, William, Newton, Mass. Planer-gage and calipers	380,797	Apr. 10	745	204	43	157

## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Haden, Carey, Montgomery, Ala. Rotary engine	388,969	Sept. 4	241	64	44	1118
Hadfield, Joseph, New York, and F. McConnell, Brooklyn, N. Y. Soil-pipe ventilator	385,262	June 26	2137	545	43	1559
Hadfield, Renben. (See Baldwin and Hadfield.)						
Hadley, Charles E., Washington, D. C., assignor to Volta Graphophone Company, Alexandria, Va. Manufacturing graphophone-tablets	392,796	Nov. 13	922	236	45	778
Hadley, Charles F. (See Overman and Hadley.)						
Hadley, Charles F., Chicopee, assignor to Overman Wheel Company, Boston, Mass. Bicycle	380,886	Apr. 10	878	236	43	180
Hadley, Charles F., Chicopee, assignor to Overman Wheel Company, Boston, Mass. Velocipede	385,350	July 3	15	5, 6	44	5
Hadley, Charles W. Owatonna, Minn. Automatic grain-measure	377,936	Feb. 14	902	231	42	683
Hadley, Dennis J., East Fairfield, Vt. Device for heating watering-troughs	394,689	Dec. 18	1456	380	45	1370
Hadley, Edgar J., Baltimore, Md. Micrometer-calipers	388,669	Aug. 28	2248	603	44	1024
Hadley, Ethan, Chicopee Falls, assignor to Dover Stamping Company, Boston, Mass. Egg-beater	380,564	Apr. 3	391	112	43	80
Hadley, George A., Providence, R. I. Grinding-machine	385,666	July 3	496	128	44	96
Hadley, Joseph. (See Lasswell, John W., assignor.)						
Haegelin, Richard A. (See Morlock and Haegelin.)						
Haertel, Conrad A. (See Martin, Alfred, assignor.)						
Hafely, Alfred C., New York, N. Y. Embossed metallic plate	378,442	Feb. 28	1657		42	842
Haft & Walbridge. (See Stepp, John P., assignor.)						
Hagan, John, Atlantic City, N. J. Velocipede	390,017	Sept. 25	1845	489	44	1448
Hagar, Benjamin R., Bradford, Pa. Wrench	382,975	May 15	1616	423	43	841
Hagarty, George L., assignor of one-third to E. S. Decker, St. Thomas, Ontario, Canada. Feed-water heater	377,752	Feb. 14	608	156	42	624
Hagarty, Michael, West Bay City, Mich. Railway-tie	395,134	Dec. 25	2185	563	45	1520
Hage, Henry R., Plankinton, assignor of one-half to J. Hage, Aurora County, Dak. Ter. Hoof-trimmer	389,463	Sept. 11	1006	269	44	1271
Hage, Joseph. (See Hage, Henry R., assignor.)						
Hageman, Randolph F. New Madison, Ohio. Railway-signal	377,892	Feb. 14	834	213	42	669
Hageman, Randolph F., D. Noggle, and R. S. Eads, New Madison, Ohio. Corn-shuck compressor	383,355	May 22	2198	581	43	962
Hagemann, Otto C. (See Domcier and Hagemann.)						
Hagen, Arthur T., Rochester, N. Y. Neckband-ironer	386,706	July 24	2015	531	44	717
Hagenbuehle, John B., et al. (See Zallud, Karl, assignor.)						
Hager, Charles, assignor of one-half to H. Baethig, Buffalo, N. Y. Freight-car door	382,154	May 1	404	106	43	588
Hager, Charles, assignor of two-thirds to H. Baethig and L. B. Crocker, Buffalo, N. Y. Stock-car	388,671	Aug. 28	2250	603	44	1024
Hager, Henry D. (See Blasier, David J., assignor.)						
Hagerman, Calvin E., Ainsworth, Nebr. Hay-rack	380,106	Mar. 27	1864	495	42	1346
Hagerty, James S., Baltimore, Md. Letter-box	392,028	Oct. 30	2604	708	45	541
Hagerty, Thomas F., San Francisco, Cal. Button-hole sewing-machine	382,763	May 15	1328	349	43	783
Hagg, William L., Lansing, Mich. Machine for splicing wire	383,178	May 22	1942	509	43	914
Haggard, Harvey, Jackson, Ind. Washing-machine	387,069	July 31	2578	678	44	533
Haggenmiller, Louis and O., Philadelphia, Pa. Apparatus for pitching barrels	385,178	June 26	2003	513	43	1532
Haggenmiller, Otto. (See Haggenmiller, Louis and O.)						
Hagué, Ernest, New York, N. Y. Apparatus for dispensing beverages	393,106	Nov. 20	1357	354	45	872
Hahn, Albert K. (See Circle, Franklin P., assignor.)						
Hahn, Isaac H., New York, N. Y. Automatic car-alarm operator	383,524	May 29	2474	653	43	1018
Hahn, John J., assignor of one-half to I. J. Maggard, Oxford, Kans. Hand-truck	389,383	Sept. 11	889	232	44	1249
Hahn, Samuel, Berlin, Germany. Running-stitch sewing-machine	386,536	July 24	1789	472	44	374
Haight, Charles L., Poughkeepsie, N. Y. Machine for forming horseshoes	379,696	Mar. 20	1227	346	42	1213
Haight, Henry J., New York, N. Y. Receiving, transmitting, and distributing instrument for electro-magnetic thermoscopes	376,149	Jan. 10	603	161	42	126
Haight, Henry J., New York, N. Y. Circuit-closer and regulator for electro-magnetic thermoscopes	376,880	Jan. 24	1691	441	42	345
Haille, John C., Utica, N. Y. Twine-holder	392,328	Nov. 6	222	57	45	636
Haiman, Elias, assignor to M. Adler and I. Liebmann, Atlanta, Ga. Paper holder and cutter	389,506	Sept. 11	1065	283	44	1282
Hain, Frank K., New York, N. Y. Railway structure	376,951	Jan. 24	1783	468	42	363
Hain, Grant, Dailey, Mich. Hoe	386,197	July 17	1264	337	44	263
Haines, Augustin S., Nashville, Iowa. System of irrigation	379,392	Mar. 13	764	207	42	1117
Haines, Byron W., San Francisco, Cal. Dental plugger	381,364	Apr. 17	1601	428	43	328
Haines, George B., Chicago, Ill. Car-starter	393,827	Dec. 4	131	36, 37	45	1097
Haines, John H. J., Flushing, N. Y. Attachment for filling cans	381,236	Apr. 17	1422	382	43	292
Haines, John H. J., Flushing, N. Y. Knockdown packing-vessel	393,899	Dec. 4	246	67	45	1119
Haines, John W., Fort Fairfield, Me. Snow-scraper	378,307	Feb. 21	1453	379	42	794
Haines, Joseph T., Balboa, Ind. Portable elevator	387,512	Aug. 7	466	122	44	664
Haines, Samuel A., Guide, Tex. Mechanical motor	382,525	May 8	979	247	43	705
Hainsworth, Frederick, Chicago, Ill. Wire fabric for mattresses	379,012	Mar. 6	222	60	42	1008
Hainsworth, Frederick, Chicago, Ill. Machine for manufacturing wire fabrics	379,013	Mar. 6	223	60	42	1008
Hainsworth, Frederick, Chicago, Ill. Uniting pieces of scroll-work	386,124	July 17	1166	310	44	243
Hainsworth, Frederick, Chicago, Ill. Making scroll-work	386,125	July 17	1167	310	44	243
Hainsworth, Frederick, Chicago, Ill. Wire mat	386,126	July 17	1167	311	44	243
Hainsworth, William. (See Bagaley and Hainsworth.)						
Hainsworth, William, assignor to Pittsburgh Steel Casting Company, Pittsburg, Pa. Mold for hollow articles	386,067	July 10	1070	286	44	219
Hairgrove, George W. (See Irwin and Hairgrove.)						
Haischer, Victor et al. (See Stasch, Emil R., assignor.)						
Haish, Jacob, De Kalb, Ill. Screen for windows, doors, &c	376,881	Jan. 24	1692	443	42	345
Haish, Jacob, De Kalb, Ill. Spark-arrester	378,092	Feb. 21	1119	293	42	733
Haish, Jacob, De Kalb, Ill. Car-coupling	378,676	Feb. 28	1991	527	42	909
Haish, Jacob, De Kalb, Ill. End-gate	380,483	Apr. 3	256	71	43	53
Haish, Jacob, De Kalb, Ill. Wagon-bolster	384,619	June 19	1464	308	43	1358
Haish, Jacob, De Kalb, Ill. Railway-track	384,620	June 19	1166	308	43	1359
Haish, Jacob, De Kalb, Ill. Roof	386,465	July 24	1681	443	44	355
Haish, Sophia A., De Kalb, Ill. Safety-pin	391,317	Oct. 16	1594	422	45	321
Haitz, Fredrick, Towanda, Ill. Umbrella	377,455	Feb. 7	161	37	42	525
Haitz, Frederick, Towanda, Ill. Umbrella-support	377,456	Feb. 7	162	37	42	526

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hake, Cecil N. (See Dupré and Hake.)						
Hake, Samuel E., Youngstown, Ohio. Cotton-seed planter	384,314	June 12	706	{ 188 } 189	43	1265
Halbrook, Freeman, Mayfield, Ky. Car-coupling	387,352	Aug. 7	226	59	44	615
Haldeman, Charles D., assignor of one-half to C. B. Jones, Des Moines, Iowa. Horse-tail tie	388,670	Aug. 28	2250	603	44	1024
Haldeman, Ephraim A. (See Haldeman, John C. and E. A.)						
Haldeman, John C., Philadelphia, Pa. Vault-light	376,649	Jan. 17	1330	349	42	269
Haldeman, John C. and E. A., Philadelphia, Pa. Door-hanger	394,853	Dec. 18	1739	451	45	1427
Haldeman, John H., Westfield, Mass. Isothermal damper	391,844	Oct. 30	2338	634	45	439
Haldeman, Melville O., Indianapolis, Ind. Regulating-valve	385,619	July 3	435	112	44	85
Haldemann, Maria E., Newark, N. J. Toy house	390,296	Oct. 2	132	38	45	30
Hale, D. Frank, Springfield, Mass. Show-case for displaying umbrellas, &c.	391,469	Oct. 23	1810	484	45	371
Hale, Francis W., Boston, Mass. Tuning-hammer. (Reissue)	10,946	July 24	2147	563	44	442
Hale, George C., Kansas City, Mo. Automatic horse-cover	377,321	Feb. 7	22	7	42	499
Hale, George C., A. Barrett, and J. Zentner, Kansas City, Mo. Combined fire-alarm and telephone telegraph	392,604	Nov. 13	634	159	45	722
Hale, Henry S. (See Hunter, Rudolph M., assignor.)						
Hale, Henry S., Philadelphia, Pa. Car-seat	384,153	June 5	461	127	43	1210
Hale, Henry S., Philadelphia, Pa. Car-seat	388,412	Aug. 28	1885	504	44	954
Hale, James E., Plainfield, N. J., assignor of one-half to P. T. Barlow, New York, N. Y. Cane	389,806	Sept. 18	1525	404	44	1378
Hale, James E., Plainfield, N. J., assignor of one-half to P. T. Barlow, New York, N. Y. Walking-cane	390,961	Oct. 9	1071	283	45	216
Hale, James E., Plainfield, N. J., assignor of one-half to T. Keddie, Brooklyn, N. Y. Combined cane, flask, and drinking-cup	395,224	Dec. 25	2343	600	45	1547
Hale, James W., Newburyport, Mass. Mechanical toy	381,922	May 1	32	9	43	520
Hale, William B., trustee. (See Clement, Nathan S., assignor.)						
Haley, Thomas, Boston, Mass. Hose or pipe coupling	382,468	May 8	895	228	43	688
Haley, William, assignor of one-half to J. Corbus, Beaver Falls, Pa. Glass-mold	388,556	Aug. 28	2078	559	44	993
Haley, William L., Belton, Tex. Motor	391,412	Oct. 23	1728	461	45	355
Half, Isaac, Marysville, Ohio. Folding bed-lounge leg	389,299	Sept. 11	774	196	44	1227
Halford, Thomas E., Bedford Park, and E. W. Beckingsale, Grove Park, county of Middlesex, England. Washer	386,198	July 17	1265	337	44	263
Hall, A. Wilford, New York, N. Y. Mechanical telephone	386,980	July 31	2454	645	44	509
Hall, Albert E., assignor to Hall Electric Pump Company, Plainfield, N. J. Electrical water-elevator for buildings	393,828	Dec. 4	133	37, 38	45	1098
Hall, Alexander D., and G. B. Sloan, San Francisco, Cal. Screw-propeller	387,229	Aug. 7	45	10	44	580
Hall, Alford C., Cedar Mill, Oreg. Stump extractor	385,457	July 3	186	49	44	37
Hall, Alvan, Ashfield, Mass. Feed-rack	390,667	Oct. 9	649	174	45	137
Hall Annie L., Chestertown, N. Y. Rug-making device	378,884	Mar. 6	40	11	42	974
Hall, Arminda S., Watertown, Mass. Dress-form	390,668	Oct. 9	650	{ 174 } 175	45	137
Hall, Arthur H., Chicago, Ill. Map-case	384,253	June 12	621	168	43	1250
Hall, Augustus H., Raymond, Dak. Ter. Wagon-bed	388,557	Aug. 28	2079	{ 559 } 560	44	993
Hall & Co., B. L. (See Lewis, Russell H., assignor.)						
Hall, Daniel C., deceased, Stockton, Cal.; L. F. Hall administratrix. Horse-checking device for harvesters	387,230	Aug. 7	46	10	44	580
Hall, David S., assignor of one-half to G. F. Walker, Stoughton, Mass. Machine for bending blanks into tubular form	380,107	Mar. 27	1865	496	42	1347
Hall, Edward H., et al. (See Tombs, Louis N., assignor.)						
Hall, Edward J., Buffalo, N. Y. Cable-hanger	391,605	Oct. 23	1989	536	45	409
Hall Electric Pump Company. (See Hall, Albert E., assignor.)						
Hall, Francis A., assignor of one-half to W. H. Fears, Emus, Tex. Fruit-gatherer	390,165	Sept. 25	2076	553	44	1495
Hall, Francis A., assignor of one-half to W. H. Fears, Emus, Tex. Pruning implement	390,166	Sept. 25	2077	554	44	1496
Hall, Frank C., Philadelphia, Pa. Grinding-machine	387,874	Aug. 14	1010	263	44	773
Hall, Frank C., Philadelphia, Pa. Grinding-machine	388,672	Aug. 28	2251	604	44	1025
Hall, Frederick C., Chicago, Ill. Buckle	383,121	May 22	1868	488	43	899
Hall, George. (See Dillon, William S. F., assignor.)						
Hall, George A., assignor of one-half to E. H. Chase, Dexter, Me. Carpet-stretcher	388,864	Sept. 4	91	24	44	1090
Hall, George F., Newark, N. J. Window-dresser	388,776	Aug. 28	2405	648	44	1054
Hall, George F., Boston, Mass., assignor to Nonantum Worsted Company, of Massachusetts. Reel-support	381,128	Apr. 17	1271	340	43	264
Hall, George F., New York, N. Y., assignor of one-half to P. Lowentrout, Newark, N. J. Rocking-chair	383,808	May 29	2901	{ 765 } 766	43	1104
Hall, George F., Newark, N. J., and J. A. Traut, assignors to Stanley Rule and Level Company, New Britain, Conn. Attachment for carpenters' rules	389,647	Sept. 18	1300	341	44	1331
Hall, Henry, assignor to Rensselaer Manufacturing Company, Lansingburg, N. Y. Straight-way stop-valve	384,906	June 19	1590	414	43	1439
Hall, Isaac F., Leominster, Mass. Educational apparatus	388,486	Aug. 28	1987	533	44	976
Hall, James T., St. Louis, Mich. Cattle-guard	379,107	Mar. 6	362	103	42	1034
Hall, James T., St. Louis, Mich. Cattle-guard	390,592	Oct. 2	551	146	45	111
Hall, Jay E., Swanton, Ohio. Tension device for rope transmission	384,360	June 12	785	205	43	1278
Hall, John, Creston, Iowa. Ice-elevator	392,203	Nov. 6	37	10	45	601
Hall, John D., Philadelphia, Pa. Cuff-holder	377,753	Feb. 14	609	157	42	624
Hall John D., Philadelphia, Pa. Lather-tool	379,218	Mar. 13	519	146	42	1070
Hall, John D., Philadelphia, Pa. Wash-stand	381,621	Apr. 24	1991	{ 522 } 523	43	422
Hall, John E. (See Bridenthal, Hezekiah, assignor.)						
Hall, John E. (See Harcourt, Stillwell, assignor.)						
Hall, John F., Moline, Ill. Wheel-cultivator	392,728	Nov. 13	816	207	45	758
Hall, John R., Rover, Tenn. Mud-bucket	386,537	July 24	1790	473	44	374
Hall, John S., New York, N. Y. Lubricant-cup	376,952	Jan. 24	1785	469	42	364
Hall John S., New York, N. Y. Valve-locking device	387,161	July 31	2718	713	44	556
Hall, John W., et al. (See Ballew, Richard J., assignor.)						
Hall, John W., London, county of Middlesex, England. Velocipede	391,895	Oct. 30	2410	652	45	503
Hall, Leonard H., Erie, Pa. Portable steam-boiler	389,073	Sept. 4	387	101	44	1147
Hall, Lizzie F., administratrix. (See Hall, Daniel C.)						
Hall, Martin E., U. S. Navy. Auto-mobile torpedo	387,353	Aug. 7	227	59, 60	44	615
Hall, O. Clifford, assignor to Sheldon Axle Company, Wilkes-Barre, Pa. Chuck	376,650	Jan. 17	1331	349	42	269
Hall, Osborn B., Malden, Mass. Sprinkler	395,225	Dec. 25	2344	600	45	1547
Hall, Samuel G., Cohoes, N. Y. Circular-knitting machine	384,621	June 19	1168	{ 308 } 309	43	1359



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hall Steam Pump Company. (See Greenwood, Michael, assignor.)						
Hall, Thomas, Lawrence, Mass. Whirl for spinning spindles	394,265	Dec. 11	790	210	45	1231
Hall, Thurston G., Chicago, Ill., assignor to International Oil Gas Company of New York.						
Apparatus for the manufacture of gas	389,567	Sept. 18	1161	304	44	1307
Hall, William D., assignor to J. Foster & Co., Beloit, Wis. Scallop-turner	391,144	Oct. 16	1357	362	45	276
Hall, William H., Muskegon, Mich. Machine for grinding shingle-saws	379,108	Mar. 6	363	103	42	1034
Hall, William P., et al. (See Lerch, Solomon W., assignor.)						
Hall, William P., Piqua, Ohio. Railway tie	375,996	Jan. 3	368	99	42	75
Hall, Willis E., Altoona, Pa. Reversing-lever for engines	376,882	Jan. 21	1034	442	42	345
Hall & Wood Ballot Box Company. (See Wood, Richard G., assignor.)						
Hall, Zachary T., Philadelphia, Pa. Mug	385,179	June 26	2004	514	43	1532
Halladay Manufacturing Company, William H. (See Halladay, William H., assignor.)						
Halladay, William H., assignor to W. H. Halladay Manufacturing Company, Chicago, Ill. Saw-sharpening machine	381,775	Apr. 24	2200	576	43	464
Hallas, James G., Waterbury, Conn., assignor to S. E. May, New York, N. Y. Lamp	381,009	Apr. 10	1071	284	43	216
Hallett, Amos, Pittsburg, Pa. Plaiting attachment for sewing-machines	375,744	Jan. 3	36	11	42	10
Hallidie, Andrew S., San Francisco, Cal. Wire-rope-making machine	381,365	Apr. 17	1601	429	43	329
Halloek, Daniel Y., Southold, N. Y. Potato digger	376,086	Jan. 10	567	136	42	108
Halloek, David, Philadelphia, Pa. Receptacle for containing liquids	392,320	Nov. 6	223	57	45	637
Halloek, John K. (See Blickensderfer and Halloek.)						
Halloek, John K. (See Spaulding, Elijah F., assignor.)						
Hallowell, Albert, assignor of two-thirds to J. C. Hoyt, W. E. Potter, and G. C. Bassett, Lowell, Mass. Hose-nozzle	378,308	Feb. 21	1151	380	42	794
Hallowell, Albert, assignor of two-thirds to J. C. Hoyt, G. C. Bassett, and W. E. Potter, Lowell, Mass. Beer-cooler	394,920	Dec. 18	1857	480	45	1448
Hallowell, Albert, Lowell, Mass., assignor to Hallowell Brass Company, Portland, Me. Apparatus for cooling beer	394,921	Dec. 18	1860	481	45	1449
Hallowell Brass Company. (See Hallowell, Albert, assignor.)						
Hallowes, James M., New York, N. Y. Car-axle box	383,738	May 29	2760	727	43	1078
Halls, Thomas E., assignor of one-half to D. R. Ennis, Indianapolis, Ind. Car-coupling	379,781	Mar. 20	1350	360	42	1238
Halpin, Joseph P., Wyandotte, Mich. Shear-blade for power-shears	376,087	Jan. 10	509	136	42	109
Halsey, William S., Bridgeport, Conn. Machine for cutting the threads on bolts	380,887	Apr. 10	880	236	43	180
Halteman, Jacob. (See Rein, Burnard, assignor.)						
Halter, Leander. (See Blue and Halter.)						
Halvorsen, Halvor. (See Halvorsen, Lars, assignor.)						
Halvorsen, Lars, Laurvig, Norway, assignor to H. Halvorsen, Paris, France. Clock striking mechanism	377,558	Feb. 7	313	80	42	555
Ham, George W. (See Strang, Lew K., assignor.)						
Ham Manufacturing Company, C. T. (See Bergener, Charles, assignor.)						
Ham Manufacturing Company, C. T. (See Orphy, John W., assignor.)						
Hamaker, David L., Chambersburg, Pa. Bolting reel	384,520	June 12	1021	266	43	1323
Hambay, James T., Pittsburg, Pa. Hoisting-tackle	385,856	July 10	783	208	44	159
Hambay, James T., Wilkensburg, Pa. Coupling for signal-rods	393,557	Nov. 27	2030	531	45	1015
Hamblen, Rodney F. (See Hooper and Hamblen.)						
Hambleton, Francis H., Baltimore, Md. Gas-pressure-governing apparatus	380,565	Apr. 3	391	112	43	80
Hambler, Robert E., et al. (See Newsom and Oxley, assignors.)						
Hamblin, Silvanus and S. M., assignors to R. S. Douglass, Plymouth, and H. Sawyer, Boston, Mass. Loom picking mechanism	381,022	June 19	1175	310	43	1360
Hamblin, Stephen M. (See Hamblin, Silvanus and S. M.)						
Hamblin, Stephen M., Plymouth, Mass. Picker-stick for looms	382,645	May 8	1163	299	43	742
Hamblin, Stephen M., Plymouth, Mass. Let-off mechanism for looms	390,962	Oct. 9	1071	283	45	216
Hamblin, Stephen M., Plymouth, Mass., assignor to Old Colony Machine Company, of Massachusetts. Let-off mechanism for looms	592,512	Nov. 6	492	123	45	688
Hambrecht, Heinrich F., assignor to A. F. Richter, Hamburg, Germany. Detachable button or stud	383,052	May 15	1759	451	43	868
Hambrecht, Heinrich F., assignor to A. F. Richter, Hamburg, Germany. Button	390,855	Oct. 9	917	242	45	186
Hamburgh, Ephraim, Detroit, Mich. Wash-board	387,354	Aug. 7	229	60	44	616
Hamburg, Bertrand P., and E. Ketterer, Frankfort-on-the-Main, Germany. Automatic exhibiting apparatus	393,898	Dec. 4	241	66, 67	45	1119
Hamburger, Manes, Washington, D. C. Necktie-fastener	392,330	Nov. 6	224	58	45	637
Hamel, Joseph F., Pittsburg, Pa. Wire-nail machine	389,300	Sept. 11	775	196	44	1227
Hamill, John A. C., Racine, Wis. Stenciling-machine	394,690	Dec. 18	1457	381	45	1370
Hamilton, Benjamin F., Lawrence, Mass. Elevated railway structure	376,986	Jan. 21	1828	481	42	371
Hamilton, Charles K., Jr., et al. (See Patten, Jefferson, assignor.)						
Hamilton, Clarence J. (See Pinckney and Hamilton.)						
Hamilton, Clarence J., assignor of one-half to C. A. Pinckney, Plymouth, Mich. Air-gun	390,297	Oct. 2	133	38	45	30
Hamilton, Edgar B., Cleveland, Ohio. Tool for removing buttons	379,460	Mar. 13	870	245	42	1137
Hamilton, Edgar B., Cleveland, Mass. Nail and washer feeder for button-machines	389,648	Sept. 18	1302	341	41	1334
Hamilton, Edward M. and J. Q. Russell's Place, Ohio. Car-coupling	384,840	June 19	1502	391	43	1423
Hamilton, Emory M., New York, N. Y. Telegraph-instrument	379,040	Mar. 6	290	84	42	1021
Hamilton, Emory M., New York, N. Y. Telegraph-sounder	379,061	Mar. 6	292	84	42	1021
Hamilton, Emory M., New York, N. Y. Pole-changer	379,062	Mar. 6	292	85	42	1021
Hamilton, Emory M., New York, N. Y. Telegraph-key	379,063	Mar. 6	294	85	42	1021
Hamilton, Emory M., New York, N. Y. Telegraph-sounder	379,064	Mar. 6	294	85	42	1021
Hamilton, George E., Harper, Ohio. Fence-post	391,266	Dec. 11	791	210	45	1231
Hamilton, Isaac, Denning, N. Y. Machine for making ladles	376,377	Jan. 10	917	240	42	185
Hamilton, John Q. (See Hamilton, Edward M. and J. Q.)						
Hamilton, Jonathan R., assignor of one-half to L. R. Palmer, Minneapolis, Minn. Apparatus for cooling or warming the rectum or vagina	380,626	Apr. 3	477	135	43	97
Hamilton, Joseph B., Springfield, Mass. Electro-magnetic separator	381,035	June 5	285	81	43	1176
Hamilton, Lemmon, Arnold & Co. (See Frazier, George C., assignor.)						
Hamilton, Milton A., Detroit, Mich. Woven fabric and package made therefrom	379,219	Mar. 13	521	146	42	1070
Hamilton, Samuel P. (See Greene, Robert W., assignor.)						
Hamilton, Solomon W. (See Weaver, Joseph H., assignor.)						
Hamilton, William, Allegheny, Pa. Coffin-fastener	395,226	Dec. 25	2346	601	45	1547
Hamilton, William R., U. S. Army. Tent	379,274	Mar. 13	593	163	42	1083
Hamlet, David B., Bristol, Ind. Wagon and carriage lifter	382,700	May 15	1251	327	43	768
Hamlin, George B., Providence, R. I., assignor of one-half to W. J. and W. O. Innis, Oil City, Pa. Vehicle-spring	390,669	Oct. 9	652	175	45	133
Hamlin, George B., Providence, R. I., assignor of one-half to W. J. and W. O. Innis, Oil City, Pa. Vehicle-spring attachment	390,856	Oct. 9	918	242	45	186

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hamlin, Mary J., Bartramville, Ohio. Clamp for fruit-cans.....	384,361	June 12	786	205	43	1278
Hamm, Jacob M., Pittsburg, Pa. Device for ringing fare-registers.....	387,355	Aug. 7	229	60	44	616
Hamm, Jordan, May, Tex. Windmill.....	386,466	July 24	1682	443	41	355
Hammarlund, Henning, Chicago, Ill. Watch.....	388,036	Aug. 21	1274	346	44	834
Hammelrath, John M. (See Schumpe, Friedrich, assignor.)						
Hammer, Thorvald F. (See Lindner and Hammer.)						
Hammer, Thorvald F., Branford, Conn. Machine for tapping pipe-elbows.....	382,606	May 8	1109	285	43	731
Hammerstein, Oscar, assignor to G. and A. Falk, New York, N. Y., and Universal Cigar Rolling Machine Company, Jersey City, N. J. Machine for cutting cigar-wrappers.....	390,167	Sept. 25	2078	551	44	1496
Hammerstein, Oscar, New York, N. Y., assignor to Universal Cigar Rolling Machine Company, Jersey City, N. J. Cigar-rolling machine.....	395,227	Dec. 25	2348	601	45	1548
Hammett, Hiram G., Troy, N. Y. Packing for balanced valves.....	382,300	May 8	633	161	43	640
Hammond, Andrew H., Worcester, Mass. Fan-tremolo for reed-organs.....	392,331	Nov. 6	225	58	45	637
Hammond, C. Newton, Canton, assignor of two-thirds to I. N. Beardslee, East Canton, Pa. Adjustable business-sign and indicator.....	389,074	Sept. 4	388	101	44	1147
Hammond, Daniel S., Jr., Brooklyn, N. Y. Satchel.....	394,487	Dec. 11	1107	288	45	1291
Hammond, Frank. (See King and Hammond.)						
Hammond, George F., Cleveland, Ohio. Hoisting and conveying apparatus.....	386,430	July 17	1618	425	44	334
Hammond, George W., Boston, Mass. Apparatus for causticizing soda, &c.....	381,996	May 1	167	43	43	545
Hammond, Henry, Charlton, Mass. Fruit-picker.....	382,764	May 15	1330	349	43	763
Hammond, M. Burdette, Bridgeport, assignor to I. Newman & Sons, New Haven, Conn. Bustle.....	378,134	Feb. 21	1191	311	42	746
Hammond, Mark W., Chicago, Ill. Wire-lath fastener and stiffener.....	389,885	Sept. 25	1660	440	44	1410
Hammond, Robert, et al. (See Needham, Arthur J., H. C., and W. C., assignors.)						
Hammond, Thomas D., assignor of one-half to E. J. Keller, Syracuse, N. Y. Carpet-fastener.....	385,554	July 3	330	85	44	66
Hammond, Thomas D., assignor of one-half to E. J. Keller, Syracuse, N. Y. Machine for forming corners of coffins or caskets.....	392,118	Oct. 30	2757	749	45	571
Hammond, William E., and J. G. Merriam, assignors to E. Miller & Company, Meriden, Conn. Lamp-standard.....	388,195	Aug. 21	1552	413	41	884
Hammond, Winthrop, trustee. (See Tuck and Smith, assignors.)						
Hammons, Charles, Sheldon, Ill. Washing-machine.....	394,646	Dec. 18	1382	361	45	1355
Hampton, Robert I., Athens, Ga. Railway-ticket.....	380,566	Apr. 3	394	112 113	43	81
Hampton, Thomas, and J. Facer, Barrow-in-Furness, county of Lancaster, England, assignors of one-third to P. S. Justice & Co., Philadelphia, Pa., and London, England. Mold for casting ingots.....	380,321	Apr. 3	20	6	43	6
Hance, William A. (See McDonald, Charles H., assignor.)						
Hance, Joseph, Baltimore, Md. Gas-burner for heating purposes.....	391,606	Oct. 23	1990	536	45	409
Hancock Inspirator Company. (See Randall, Charles E., assignor.)						
Hancock, Milton T., assignor to Hancock Plov Company, Little Rock, Ark. Sulky-plov.....	379,892	Mar. 20	1548	408	42	1275
Hancock Plov Company. (See Hancock, Milton T., assignor.)						
Hand, Ekins, assignor of two-thirds to P. E. Rivard and G. A. Sabey, Rochester, N. Y. Hydrant.....	377,357	Jan. 31	2376	686	42	483
Hand Power Test Machine Company. (See Devantery, Joseph, assignor.)						
Hand Power Test Machine Company. (See Martel, Adalard F., assignor.)						
Hand Power Test Machine Company. (See Mosser, Ferdinand, assignor.)						
Handley, Thomas, Willimantic, Conn. Thread-unwinder.....	385,857	July 10	784	208	44	160
Hanes, George W. (See Rand, Jefferson C., assignor.)						
Haney, Elijah, Grand Rapids, Mich. School-desk or other furniture.....	389,507	Sept. 18	1526	404	44	1378
Haney, John Q. A. (See Mitzel and Haney.)						
Hanford, Clarence C., Medford, Mass. Making malt liquors.....	382,155	May 1	406	106	43	588
Hanford, Clarence C., Medford, Mass. Apparatus for cooling liquids.....	382,156	May 1	407	106	43	588
Hänisch, Emil, and M. Schroeder, Hamborn, Prussia, Germany. Obtaining sulphurous acid.....	376,883	Jan. 24	1695	443	42	345
Hänisch, Emil, and M. Schroeder, Hamborn, Prussia, Germany. Producing sulphuric anhydride.....	384,841	June 19	1503	391	43	1424
Hankin, William, Sr., Brooklyn, N. Y. Bucksaw-brace.....	380,567	Apr. 3	395	113	43	81
Hanks, Austin J., Wilmington, Ohio. Wheel.....	384,759	June 19	1372	359	43	1399
Hanley, Edwin K. (See Gongware and Hanley.)						
Hanley, James F., Charleston, S. C. Mechanical movement.....	376,303	Jan. 10	812	214 215	42	165
Hanley, James F., Charleston, S. C. Mechanical movement.....	392,332	Nov. 6	227	58	45	637
Hanley, William, Chicago, Ill. Overshoe.....	376,378	Jan. 10	918	241	42	185
Hanlin, Thomas H., Pittsburg, Pa. Churn-dasher.....	385,351	July 3	17	6	44	6
Hanlon, Joseph P. A., Somerville, assignor of one-seventh to C. A. David, Lynn, Mass. Screw.....	379,200	Mar. 6	479	135	42	1057
Hanly, Thomas F., assignor to F. A. Behan, New Orleans, La. Passenger-register.....	384,572	June 12	1095	287 288	43	1337
Hannore, Hiram M., Camden, N. J. Fire-kindler.....	381,237	Apr. 17	1423	382	43	292
Hannore, Hiram M., Camden, N. J. Non-heat-conducting fabric.....	386,981	July 31	2455	645	44	509
Hanua, John. (See Sharood, William H., assignor.)						
Hannah, Joseph E. (See Davies, William, assignor.)						
Hannahs, Fred. C., assignor of one-half to J. A. Jackson, Kenosha, Wis. Crib.....	388,130	Aug. 21	1452	389	41	866
Hannahs, Fred. C., assignor of one-half to J. A. Jackson, Kenosha, Wis. Folding head-piece for cots.....	388,131	Aug. 21	1454	390	44	866
Hannahs, James M., Chicago, Ill. Elevated railway.....	377,153	Jan. 31	2071	544	42	427
Hannahs, James M., Chicago, Ill. Elevated railway. (Reissue).....	10,961	Oct. 2	613	163	45	124
Hannan, James. (See Harrington and Hannan.)						
Hannay, James B., Glasgow, county of Lanark, Scotland. Furnace for heating wheel-tires.....	385,925	July 10	884	234	44	181
Hannay, James B., Cove Castle, Loch Long, county of Dumbarton, Scotland. Spray lamp or burner for lighting or heating.....	391,706	Oct. 23	2128	575	45	437
Hannig, Paul, Gloversville, N. Y. Ornamenting leather.....	385,926	July 10	885	234	44	181
Hanower, Morris, Fort Lee, N. J., assignor to Eagle Pencil Company, New York, N. Y. Compass attachment for pencils.....	376,379	Jan. 10	919	241	42	185
Hanrahan, Joseph F., Ottawa, Ontario, Canada. Refrigerator-car.....	392,204	Nov. 6	39	10	45	602
Hanrahan, Joseph F., Ottawa, Ontario, Canada. Refrigerator-building.....	392,917	Nov. 13	1086	282	45	812
Hanrez, Prosper, Brussels, Belgium. Steam-boiler.....	384,972	June 26	1685	438	43	1467
Hansberger, Henry, Millersport, Ohio. Holdback.....	378,505	Feb. 28	1744	460	42	860
Hansbury, Harry B., Philadelphia, Pa. Vignetting-screen.....	393,642	Nov. 27	2159	565	45	1041
Hanscom, Albert H., Winterport, Me. Bridle-bit.....	376,088	Jan. 10	510	137	42	109
Hanscom, John F., Boston, Mass. Apparatus for taking up the slack in steering-ropes of vessels.....	379,461	Mar. 13	871	235	42	1138
Hanscom, William W., San Francisco, Cal. Steam-actuated valve.....	380,888	Apr. 10	887	237 238	43	183

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Hausehman, H. J., <i>et al.</i> (See Cook, Gustave, assignor.)						
Hansen, Alfred M., Fulton, Ill. Facing for walls of buildings	382,359	May 8	728	183	43	657
Hansen, Andrew, assignor of one-third to C. P. Jorgensen, Racine, Wis. Brake-lock	381,010	Apr. 10	1072	284	43	216
Hanson, Fred J. (See Woodard, William H., assignor.)						
Hansen, Harald M., Chicago, Ill. Chimney-cap	390,857	Oct. 9	919	242	45	186
Hansen, Henry R., assignor of one-half to J. G. Hansen, Jersey City, N. J. Badge	390,593	Oct. 2	552	146	45	111
Hansen, Julius G. (See Hansen, Henry R., assignor.)						
Hansen, Peder, Chicago, Ill. Tank-supply-regulating valve	382,301	May 8	634	161	43	640
Hansen, Sigvart, Böhn, assignor to C. Christophersen, Christiania, Norway. Horseshoe-nail machine	382,646	May 8	1463	300 301	43	742
Hanson, Dempsey B., Austin, Pa., assignor of one-half to E. P. Allis, Milwaukee, Wis. Band-saw mill	390,227	Oct. 2	51	14	45	11
Hanson Elevator Safety Lock Company. (See Hanson and Bullock, assignors.)						
Hanson, Freeman, Hollis, assignor of one-half to E. Ponce, Portland, Me. Washing-machine	393,702	Nov. 27	2249	590	45	1058
Hanson, Henry, Boston, Mass. Anti-friction bearing	386,315	July 17	1450	384	44	296
Hanson, Joseph. (See Cleveland and Hanson.)						
Hanson, Olaus. (See Johnson and Hanson.)						
Hanson, Paul, St. Paul, Minn. Grain-binder	377,069	Jan. 31	1951	513	42	404
Hanson, Paul, St. Paul, Minn. Cord-tyer for grain-binders	377,828	Feb. 14	747	189 190	42	652
Hanson, Paul, St. Paul, Minn. Grain-binder	379,953	Mar. 27	1635	435 436	42	1302
Hansen, William F. (See Bullock and Hanson.)						
Hanson, William F., and W. F. Bullock, Lynn, Mass., assignors to Hanson Elevator Safety Lock Company, Portland, Me. Automatic stop for elevators	375,745	Jan. 3	37	11	42	10
Hartey, Alexander, Steubenville, Ohio. Sole for boots or shoes	386,778	July 24	2120	557	44	436
Hapgood Plow Company. (See Black, Joseph P., assignor.)						
Hapgood Plow Company. (See Neff, Joseph B., assignor.)						
Harasin, Matthew, <i>et al.</i> (See Odorizzi, Joseph, assignor.)						
Harbaugh, Frank P., Chambersburg, Pa. Book-holder	390,363	Oct. 2	236	63	45	49
Harbert, William S., <i>et al.</i> (See Jewell, Crews, assignor.)						
Harbison, James, Schenectady, N. Y. Harness-bracket	381,776	Apr. 24	2202	576	43	464
Harcourt, Stillwell, assignor to himself and J. E. Hall, Chicago, Ill. Piano-action	376,577	Jan. 17	1065	279	42	219
Harcourt, Stillwell R., assignor to W. W. Kimball Company, Chicago, Ill. Piano-action	381,129	Apr. 17	1272	340	43	264
Harcourt, Stillwell R., assignor to W. W. Kimball Company, Chicago, Ill. Piano-forte action	384,254	June 12	623	168	43	1250
Hard, Josiah A., assignor of one-half to H. L. Prentice, Denver, Colo. Nut-lock	384,204	June 5	540	148	43	1236
Hardaway, Benjamin F., Fort D. A. Russell, Wyo. Ter. Parallel-ruler	385,512	July 3	269	69	44	55
Hardeman, Samuel. (See Page and Hardeman.)						
Harden, Albert, East Bridgewater, Mass., assignor of one-half to S. A. West, St. Louis, Mo. Shank-brnishing device	384,573	June 12	1096	288	43	1337
Harden, Edward W. (See Weir, Partington, Goldsmith, and Harden.)						
Harden, George, Detroit, Mich. Truck for moving buildings	389,568	Sept. 18	1162	305	44	1307
Harden, George T., and E. S. Grant; said Harden assignor to J. S. Boggess, Middleport, Ohio. Nail-plate feeder	388,673	Aug. 28	2253	604 605	44	1025
Harden, William H., assignor of one-half to I. B. Hopson and W. C. McCall, Quitman, Ga. Animal-trap	388,196	Aug. 21	1554	413	44	884
Harden, William I. F., Hartford, Kans. Fence	388,132	Aug. 21	1454	390	44	806
Hardenbergh, Charles M., Minneapolis, Minn. Dust-collector	385,263	June 26	2138	545	43	1560
Hardenstein, A. O. (See Swafford and Burns, assignors.)						
Harder, Charles N. (See Sagendorph, Longley L., assignor.)						
Harder, Frank P., <i>et al.</i> (See Burns and Buckman, assignors.)						
Harder, Frank P., <i>et al.</i> (See Rice, Henry, assignor.)						
Hardie, James G., Jr., Canton, N. Y. Mailing-machine	378,309	Feb. 21	1456	380	42	794
Hardie, Robert, Rome, N. Y. Steam-brake	375,933	Jan. 3	283	76	42	59
Hardin, Charles H., Shelby, N. C. Box	391,145	Oct. 16	1358	363	45	276
Hardin, P. W., <i>et al.</i> (See Rothechild, Joseph, assignor.)						
Hardin, William E., Monterey, Ky. Spoke-socket	377,893	Feb. 14	837	214	42	669
Harding, August, Oakland, Cal. Speed-changer	376,150	Jan. 10	607	163	42	127
Harding, August, Oakland, Cal. Electric-arc lamp	380,435	Apr. 3	186	51, 52	43	38
Harding, August, Oakland, Cal. Dynamo-electric machine	385,458	July 3	188	49	44	37
Harding, Edgar, <i>et al.</i> (See Adams, Charles W., assignor.)						
Harding, Thomas, Detroit, Mich. Spring-gun	379,782	Mar. 20	1352	360	42	1239
Hardinge, Harry W., Leadville, Colo. Electric tele-thermoscope	382,976	May 15	1617	423	43	841
Hardsoeg, Martin, Ottumwa, Iowa. Twisting angers	392,119	Oct. 30	2759	749	45	572
Hardwick, Harry, Philadelphia, Pa. Carpet fabric	382,157	May 1	409	107	43	589
Hardwicke, James K., and J. J. Redmon, Marshall, N. C. Apparatus for coloring tobacco	382,084	May 1	316	83	43	571
Hardy, Charles, Nashua, N. H. Bobbin	385,667	July 3	498	128	44	96
Hardy, Charles M. (See Seuthorpe, Walter J., assignor.)						
Hardy, Dexter D., Lake View, assignor of one-fourth to M. E. Dayton, Chicago, Ill. Railway traction device	386,779	July 24	2121	557	44	447
Hardy, Frederick, Birmingham, Ala. Fastener for harness	393,153	Nov. 20	1423	371	45	885
Hardy, George H., and R. A. Baldwin, Manchester, N. H. Exhibitor for shirts, &c	392,797	Nov. 13	923	236	45	779
Hardy, John J., assignor to himself, L. W. Hardy, Lake View, J. A. Yale, J. E. Young, and D. L. Hough, Chicago, Ill. Universal table for drills	380,322	Apr. 3	23	6	43	7
Hardy, John W., Shelbyville, Mo. Railway-track	381,130	Apr. 17	1273	341	43	265
Hardy, Lewis W., <i>et al.</i> (See Hardy, John J., assignor.)						
Hardy, Moses F., Remsen, N. Y. Invalid-bedstead	382,872	May 15	1472	386	43	813
Hardy, Perry D., Northampton, Ohio. Hay-rake	394,647	Dec. 18	1384	361 362	45	1356
Hare, Robert W., and R. Sproul, assignors to Sproul Vehicle Manufacturing Company, (limited), Pittsburg, Pa. Shaft attachment for vehicles	379,462	Mar. 13	872	235	42	1138
Harford, John H., and W. W. Reeves, Cincinnati, Ohio. Snapper for inhaling devices	390,475	Oct. 2	392	100	45	81
Hargin, John R., assignor of one-half to O. A. Glazebrook, Elizabeth, N. J. Air-mattress	388,037	Aug. 21	1280	346 347	44	834
Hargrave, Samuel, Sr., Pumena, Ill. Saw-set	377,853	Feb. 14	778	199	42	658
Hargreaves, Laycock, Accrington, county of Lancaster, England. Yielding grate for cotton-openers	379,065	Mar. 6	295	85, 86	42	1022
Hargreaves, William, Philadelphia, Pa. Device for extinguishing fires in theaters and other buildings	386,199	July 17	1266	338	44	263
Harrison, William B., New York, N. Y. Shoe for ladders to prevent accidents from slipping, &c	385,806	July 10	709	184	44	146
Harker, John T., Camden, N. J., assignor to S. Thackara, Philadelphia, Pa. Ice-creeper	390,594	Oct. 2	554	146	45	112
Harkins, Charles H., St. Louis, Mo. Automatic valve for water-tanks	379,159	Mar. 6	424	120	42	1046

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Harkins, Charles H., St. Louis, Mo. Water-closet valve.	380,257	Mar. 27	2065	553	42	1388
Harkins, Charles H., St. Louis, Mo. Water-closet valve.	391,318	Oct. 16	1595	423	45	321
Harkins, Daniel, Hudson, Mass. Handle attachment for files and similar tools.	388,197	Aug. 21	1555	413	44	885
Harkins, Daniel, assignor to L. D. Apsley and J. H. Coffin, Hudson, Mass. Machine for making figured gossamer rubber goods.	378,247	Feb. 21	1363	358	42	778
Harkins, James S., assignor to J. Merritt, Minneapolis, Minn. Spring-doubletree.	387,298	Aug. 7	155	41	44	601
Harkins, Thomas B., Bristol, Pa. Molding-machine.	387,716	Aug. 14	794	204	44	730
Harkness, William, Fishkill, assignor to Scovill Manufacturing Company, New York, N. Y. Finder for photographic cameras.	385,513	July 3	271	69	44	55
Harkness, William H., and F. E. Fessenden, Concordia, Kans. Clasp for scissors.	390,228	Oct. 2	52	14	45	14
Harkom, John W., Richmond, Quebec, Canada. Railway-crossing signal.	392,798	Nov. 13	924	237	45	779
Harles, William, St. Louis, Mo. Fire-lighter.	384,842	June 19	1504	391	43	1424
Harley, Cornelius O., Leeds, Mass. Reversible screw-eyes.	377,611	Feb. 7	391	99	42	570
Harley, John, assignor to one-half to J. F. Murphy, Detroit, Mich. Chair-bottom.	393,758	Dec. 4	37	11	45	1079
Harlow, Charles F., Boston, Mass. Wax-thread sewing-machine.	378,929	Mar. 6	96	28	42	925
Harlow, Cushing C., Brockton, assignor, by mesne assignments, to E. G. Carleton, Chelsea, Mass. Key-fastener.	393,302	Nov. 20	1639	432	45	928
Harlow, John R., assignor to Brinkerhoff Company, Auburn, N. Y. Trolling-spoon book.	378,678	Feb. 28	1995	527	42	909
Harman, Franklin F., Honey Creek, Ind. Corn-planter.	394,176	Dec. 11	642	172	45	1204
Harman, Stephen S., New York, N. Y. Marking-brush.	391,694	Oct. 30	2512	680	45	523
Harnian, William, Oak Park, Ill. Bridge.	383,880	June 5	42	14, 15	43	1129
Harmel, Albert, Val des Bois, Marne, France. Apparatus for dyeing wool.	391,043	Oct. 16	1220	323	45	251
Harmel, Albert, assignor to Société Harmel Frères, Val-des-Bois, near Warmeriville, France. Apparatus for dyeing.	382,977	May 15	1619	423	43	841
Harmon, Charles H., assignor to himself and W. H. Reed, Lebanon, Ore. Oven attachment.	381,470	Apr. 17	1764	471	43	359
Harmon, Eleazer, Baltimore, Md. Alarm-bolt for doors.	384,760	June 19	1373	359	43	1399
Harmon, Eleazer, Baltimore, Md. Alarm-bolt.	384,761	June 19	1374	360	43	1399
Harmon, Legrand B., Carysville, and J. N. Nutt, Sidney, Ohio. Fence-post.	380,627	Apr. 3	478	135	41	97
Harmon, Stephen D., and J. M. Terrell, Spring Hills, Ohio. Fence-post.	379,109	Mar. 6	365	104	42	1024
Harmony, William P., Sidney, Ohio. Type-case stand.	383,292	May 22	2114	558	43	946
Harms, Charles F., Hoboken, N. J. Electric letter-box.	394,558	Nov. 27	2031	532	45	1015
Harness, Cornelius B., London, England. Electric belt.	380,568	Apr. 3	396	113	43	81
Harnsberger, Jacob A., Crayon, Ohio. Fence.	389,649	Sept. 18	1303	341	44	1332
Harper, Albertus V., Tower Hill, Ill. Fence-machine.	382,526	May 8	981	247	43	705
Harper, Edward H. (See Gibbs and Harper.)						
Harper, Joseph H., et al. (See Elliott, Robert C., assignor.)						
Harper, R. M. (See McMillion, Hiram S., assignor.)						
Harper, Robert H. (See Melsom and Harper.)						
Harper, Stephen C., Fairville, Mo. Corn-husker.	394,177	Dec. 11	644	173	45	1204
Harper, Thomas, Brooklyn, N. Y. Machine for polishing sheet metal.	392,799	Nov. 13	925	237	45	779
Harper, William H., J. M. Boyd, and A. C. Shelton, Pine Log, Ga. Cotton-chopper.	378,443	Feb. 28	1658	435	42	842
Harpam, Julius C., Lincoln, Nebr. Rosette attachment for bridles.	383,122	May 22	1868	458	43	899
Harpst, Edgar S., Tyler, Tex. Fruit coring and halving machine.	393,154	Nov. 20	1424	372	45	855
Harrall, Joseph J., assignor to D. Shields and L. H. Williams, Pittsburg, Pa. Joint for railway-rails.	389,465	Sept. 11	1008	270	44	1272
Harrigao, Cornelius, Rome, N. Y. Spring-vehicle.	380,032	Mar. 27	1756	471	42	1325
Harrigan, Dennis, Somerville, Mass. Letter-box.	384,154	June 5	464	127	43	1210
Harrigan, John, Brooklyn, N. Y. Drag-saw.	390,364	Oct. 2	237	63	45	49
Harrigan, M. Thaddeus, Wollaston, assignor to J. W. Brooks, trustee, Cambridge, Mass. Rotary cutter.	386,538	July 24	1790	473	44	374
Harrington, Allan C., Richmond, Va. Fountain-brush for manilage and other liquids.	379,463	Mar. 13	873	235	42	1138
Harrington, Daniel, and M. A. Keane, New Brunswick, N. J. Combined tie, chair, and fish-plate.	381,238	Apr. 17	1424	353	43	292
Harrington, Herbert E., Walden, Vt. Water-heater.	393,900	Dec. 4	248	67	45	1119
Harrington, John, Coventry, county of Warwick, England, assignor to W. H. Durfee, Providence, R. I. Tubular resonator.	389,841	Sept. 18	1573	417	44	1387
Harrington, Mark W., Ann Arbor, Mich. Book-support for shelves.	388,674	Aug. 28	2257	605	44	1026
Harrington, Patrick S., Cheyenne, Wyo. Terr., assignor to Cheyenne Manufacturing Company, of Wyoming. Whip.	382,258	May 1	561	141	43	617
Harrington, Randall A., Providence, R. I. Inclined railway and water-tobogganing apparatus.	384,843	June 19	1506	391	43	1424
Harrington & Richardson Arms Company. (See Caldwell, Homer M., assignor.)						
Harrington, Samuel H., Columbus, Ohio. Device for extinguishing fires and preventing the escape of steam in railway-cars.	381,924	May 1	35	10	43	521
Harrington, Samuel H., and E. Grafstrom, Columbus, Ohio. Device for extinguishing fires in railway-cars.	381,923	May 1	33	10	43	521
Harrington, Samuel H., assignor, by mesne assignments, to Consolidated Coupling Company, Columbus, Ohio. Car-coupling.	376,713	Jan. 17	1425	374	42	287
Harrington, Samuel H., and J. Hannan, assignors, by mesne assignments, to Consolidated Coupling Company, Columbus, Ohio. Car-coupling.	376,714	Jan. 17	1426	375	42	287
Harris, Alfred E., London, England. Suspending overhead electric wires.	388,487	Aug. 28	1988	534	44	976
Harris, Azariah B., Springfield, Mass. Ventilating railway-cars.	388,865	Sept. 4	92	24	44	1090
Harris, Benjamin. (See Krause and Harris.)						
Harris, Benjamin G. (See Fairman, Simon, assignor.)						
Harris, Bradner L., Detroit, Mich., assignor to one-half to J. D. Lehmer, Cincinnati, Ohio. Grip for cable-railway cars.	375,997	Jan. 3	370	99	42	75
Harris, Bradner L., Detroit, Mich., assignor to three-fourths to J. D. Lehmer, Cincinnati, Ohio, and F. H. Ellis, St. Louis, Mo. Grip for cable-railway cars.	394,539	Dec. 11	1191	310	45	1306
Harris Button Hole Attachment Company. (See Williams, Henry J., assignor.)						
Harris, Carleton C., Rochester, N. Y. Fabric-turfing implement.	381,997	May 1	170	41	43	545
Harris, Charles B. (See Stillman, Thomas B., assignor.)						
Harris, Charles D., Cicero, Ind. Automatic feed-regulator for gas-burners.	393,008	Nov. 20	1227	319	45	846
Harris, Charles R., Williamsport, Pa. Buckle.	376,193	Jan. 10	663	177	42	137
Harris, Charles R., Williamsport, Pa. Lamp-burner.	379,110	Mar. 6	366	104	42	1034
Harris, Elmore A., Norwich, Conn. Breech-loading fire-arm.	394,691	Dec. 18	1459	311	45	1371
Harris, Enoch, Evansville, Ind. Saw-tooth.	381,011	Apr. 10	1073	285	43	217
Harris, Ernest A., Mechanic Falls, Me. Machine for cutting tooth-picks.	375,812	Jan. 3	121	35	42	28
Harris, Fradelshon. (See Greengard and Harris.)						
Harris, George F., New York, N. Y. Laying railway-track.	381,366	Apr. 17	1606	429	43	329

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Harris, George W., South Bend, Ind. Spring for side-bar vehicles	393,759	Dec. 4	38	12	45	1079
Harris, Henry, Reading, Pa. Machine for making nuts	375,746	Jan. 3	39	11, 12	42	11
Harris, Henry C., Higginsville, Mo. Knee-shoe	395,228	Dec. 25	2350	602	47	1548
Harris, Isaac A. (See Hoke and Harris.)						
Harris, Jabez G., assignor to Harris & Jones, Providence, R. I. Graining plates for surface-printing	392,556	Nov. 6	554	140	45	701
Harris, James, Columbia, Mo. Fence	382,806	May 15	1390	365	43	795
Harris, James C. (See Burton, Augustus G., assignor.)						
Harris, John H., et al. (See Class, William F., assignor.)						
Harris & Jones. (See Harris, Jabez G., assignor.)						
Harris, Lafayette, Three Forks, assignor to N. J. Isdell, Pony, Mont. Ter. Waiter or salver for tables	389,466	Sept. 11	1010	270	44	1272
Harris, Lander S., Detroit, Mich. Regulation of electric motors	391,319	Oct. 16	1397	423	45	322
Harris, Levi O., Cadillac, Mich. Saw-swaging device	391,570	Dec. 18	1259	329	45	1311
Harris, Lorenzo H., Aurora, Ill. Car-coupling	383,729	May 29	2760	728	43	1078
Harris, Morris C., San José, Cal. Printer's rule-case	382,038	May 1	247	63, 64	43	539
Harris, Nathan, Boston, Mass. Machine for unwinding, drawing off, and cutting cloth	386,068	July 10	1072	286 287	44	219
Harris, Nelson E., Orange, Mass. Hydraulic motor	390,077	Sept. 25	1949	517 518	44	1469
Harris, Noah, assignor of one-half to H. W. Porter and C. M. Griffith, Vincennes, Ind. Axle-washer	382,259	May 1	562	142	43	617
Harris, Norman C., Poultney, Vt. Hoisting and traversing apparatus	393,643	Nov. 27	2161	566	45	1041
Harris, Oliver H. (See Tracy, Dwight, assignor.)						
Harris, Orrin C., Newport, N. Y. Convertible chair	375,934	Jan. 3	284	76	42	59
Harris, Philander A., Paterson, N. J. Electric bell-pull	390,778	Oct. 9	809	215	45	167
Harris, Rozell, Hackensack, N. J. Wagon-jack	382,807	May 15	1391	365	43	795
Harris, Thaddeus W., New York, N. Y. Conduit for electric or cable railways	394,648	Dec. 18	1385	362	45	1356
Harris, William M., and A. B. Smith, Mansfield, Ohio; and Smith assignor to said Harris. Detachable pipe-coupling	386,881	July 31	2307	607	44	479
Harris, William R., Greenville, assignor to W. L. Denning, Salem, Ohio. Fluid-pressure motor	376,821	Jan. 24	1504	420	42	328
Harris, William S., Bardwell, Ky. Singletree	386,707	July 24	2017	532	44	418
Harris, William S., Wauseon, Ohio. Tidy-holder	393,703	Nov. 27	2250	590	45	1058
Harris, William S., Knoxville, Tenn. Grate-blower	394,359	Dec. 11	935	245 246	45	1260
Harrison, Aaron E. (See Harrison, Henry H., assignor.)						
Harrison, Arthur. (See Evans and Harrison.)						
Harrison, Arthur, Barrow-in-Furness, county of Lancaster, assignor to W. F. Richie, London, England. Apparatus for moving bodies of metal into and out of furnaces	395,135	Dec. 25	2187	563	45	1520
Harrison, Arthur W., Washington, D. C., assignor to I. Bradley, New Haven, Conn., A. H. Floeckher, and S. A. Terry, Washington, D. C. Pocket head-rest	394,649	Dec. 18	1387	362	45	1357
Harrison, Benjamin M., Lincoln, Neb. Ironing-table	387,299	Aug. 7	156	41, 42	44	601
Harrison, Harry O., Lima, Ohio. Thill-coupling	395,229	Dec. 25	2350	602	45	1548
Harrison, Henry H., assignor to A. E. Harrison, New York, N. Y. Toilet-paper cutter	390,018	Sept. 25	1847	490	44	1448
Harrison, James P., Danville, Va. Door-spring	376,435	Jan. 17	1007	264	42	209
Harrison, James P., Danville, Va. Screen	376,436	Jan. 17	1008	264	42	209
Harrison John, Winchester, county of Hants, England. Crank for velocipedes	381,547	Apr. 24	1884	497	43	401
Harrison, John G., 11 Noel Road, Edgbaston, England. Manufacture of axles for vehicles	384,521	June 12	1092	266 267	43	1323
Harrison, John O. (See Harrison, William D., assignor.)						
Harrison, Jonathan W., Ypsilanti, assignor of one-half to C. R. Miller, Adrian, Mich. Coal-mining machine	391,707	Oct. 23	2130	575	45	437
Harrison, Joseph, Milwaukee, Wis. Molder's flask	375,925	Jan. 3	285	77	42	59
Harrison Lee S., Peoria, Ill., assignor of one-half to I. S. Milliken, Hamilton, Ohio. Preparing cattle-food	389,507	Sept. 11	1066	173 174	44	1282
Harrison, Thomas B., assignor to Harrison Typewriter Company, Anderson, Ind. Typewriter machine	394,178	Dec. 11	645	174	45	1204
Harrison, Thomas W., Topeka, Kans. Bag-lock	384,688	June 19	1271	333	43	1379
Harrison Typewriter Company. (See Harrison, Thomas B., assignor.)						
Harrison, William D., Pine Bluff, Ark., assignor of one-fourth to J. O. Harrison. Box lid	385,305	June 26	2211	567	43	1573
Harrison, William E. (See Crowell and Harrison.)						
Harrison, William G., Weston, Va. Pilot for locomotives	375,747	Jan. 3	41	12	42	11
Harrison William H. Jr., New York, N. Y. Necktie	387,251	Aug. 7	46	10	44	580
Harrison, Williamson R., Canton, Ohio. Carrier for fodder-cutters and thrashing-machines	389,467	Sept. 11	1011	270 271	44	1272
Harrold, Mahlon, Denver, Colo. Double-acting suction and force pump	380,886	Sept. 25	1661	440	44	1410
Harrop, Charles, Birmingham, county of Warwick, England. Varnishing metal	392,029	Oct. 30	2604	445	45	542
Harry, August, Los Angeles, Cal. Coffee-pot	386,817	July 31	2209	582	44	462
Harry, Hugh W., Fort Worth, Tex. Metallic shingle	380,109	Mar. 27	1868	497	42	1347
Harsen, William N., Detroit, Mich. Device for setting, gagging, &c., the teeth of saws	387,875	Aug. 14	1013	264	44	774
Hart, Albert J., Brooklyn, assignor to A. King & Co., New York, N. Y. Thread-unwinder for sewing-machines	376,524	Jan. 17	1135	297	42	232
Hart, Alfred A., New York, N. Y., assignor to himself, A. C. Rowe, Orange, N. J., and G. C. Leavenworth, Louisville, Ky. Making photographic pictures	385,838	July 10	785	209	44	160
Hart, Anselm G., Chicago, Ill. Cigar-vending apparatus	376,802	Jan. 24	1573	481	42	372
Hart, Arthur H. (See Hart, Hubert C., assignor.)	381,239	Apr. 17	1425	383	43	292
Hart, Charles L., assignor to E. W. Bliss Company, Brooklyn, N. Y. Clutch	394,976	Dec. 25	1945	501 502	45	1474
Hart, Clarence R., Sioux City, Iowa. Cuff-holder	390,476	Oct. 2	393	100	45	81
Hart Cycle Company. (See Hart, Harrie B., assignor.)						
Hart Emery Wheel Company. (See Rogers, Samuel C., assignor.) (Reissue.)						
Hart, Harrie B., assignor to Hart Cycle Company, Philadelphia, Pa. Velocipede	385,620	July 3	436	112	44	85
Hart, Hubert C., Unionville, Conn. Caster-frame	383,525	May 29	2475	653	43	1018
Hart, Hubert C., Unionville, Conn. Knife or fork	386,200	July 17	1266	338	44	263
Hart, Hubert C., Unionville, Conn. Table knife or fork	388,970	Sept. 4	243	64	44	1118
Hart, Hubert C., Unionville, Conn., assignor, by mesne assignments, to A. H. Hart, New York, N. Y. Boot or shoe heel	376,987	Jan. 24	1829	481	42	372
Hart, Hubert C., Unionville, Conn., assignor, by mesne assignments, to A. H. Hart, New York, N. Y. Boot or shoe heel fastening	376,988	Jan. 24	1830	481	42	372
Hart, John G., New York, N. Y. Shoe-lace fastener	392,333	Nov. 6	228	59	45	637
Hart, John Q., Sulphur Springs, Ind. Platform adjustment for harvesting-machines	391,845	Oct. 30	2340	634 635	45	489



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hart, John W. (See Martin and Hart.)						
Hart, Maurice J., New Orleans, La. Support for electric conductors	377,894	Feb. 14	838	{ 214 215 }	42	669
Hart, Richard G., Quincy, Mo. Wagon-body	388,675	Aug. 28	2258	605	44	1026
Hart, Russell A., Battle Creek, Mich. Signature-press	394,977	Dec. 25	1950	502	45	1475
Hart, Thomas J., Detroit, Mich., assignor to E. G. Felthousen and C. A. Sherwood, Buffalo, N. Y. Lubricator	382,978	May 15	1023	424	43	842
Hart, Walter, East Orange, N. J. Logarithmic sliding scale	387,070	July 31	2579	679	44	533
Hart, William H., assignor to Stanley Works, New Britain, Conn. Making hinge-leaves	389,508	Sept. 11	1067	283	44	1282
Hart, William H., and T. Corscaden, assignors to Stanley Works, New Britain, Conn. Sheet-metal hinge	377,104	Jan. 31	2012	527	42	414
Hart, William H., Brooklyn, and J. T. Goodfellow, Troy, N. Y., assignors to W. H. Johnston, Philadelphia, Pa. System of electrical distribution	380,757	Apr. 10	677	{ 188 189 }	43	145
Harter, Frederick A., Chicago, Ill. Table-leaf support	376,594	Jan. 17	1929	323	42	251
Harter, Frederick O., and C. A. Parker, Ithaca, N. Y. Type-writer cabinet	390,298	Oct. 2	134	38	45	30
Harter, Joseph V., Denver, Ill. Seed-planter	376,089	Jan. 10	511	137	42	109
Hartford, Arthur J., assignor to himself and E. N. Dickerson, Jr., New York, N. Y. Metallic railway-tie	388,277	Aug. 21	1678	449	44	911
Hartford Novelty Company. (See Dart, Lewis, assignor.)						
Harthan, S. Emerson, Worcester, Mass. Apparatus for treating sewage	390,168	Sept. 25	2079	554	44	1496
Harthan, Warren P., Worcester, Mass. Shaking-grate	389,220	Sept. 11	632	{ 162 163 }	44	1199
Hartig, Henry, Brooklyn, N. Y. Gas-engine	391,528	Oct. 23	1886	506	45	387
Hartley, Charles J., Decatur, Ill. Automatic grain-scale	379,954	Mar. 27	1637	456	42	1302
Hartley, Charles J., assignor to J. K. Warren and B. K. Durfee, Decatur, Ill. Elevator and weighing attachment for thrashers	377,358	Jan. 31	2377	687	42	483
Hartley, John W., Stoke-on-Trent, county of Stafford, England. Variable expansive and reversing motion for oscillating-cylinder engines	388,558	Aug. 28	2081	500	44	993
Hartley, Marcellus. (See Savage, Arthur W., assignor.)						
Hartley, Sylvester F., assignor to St. Lawrence Manufacturing Company, Gouverneur, N. Y. Land-roller	380,033	Mar. 27	1758	471	42	1325
Hartley, Sylvester F., assignor to Gouverneur Machine Company, Gouverneur, N. Y. Land-roller	380,283	Mar. 27	2099	561	42	1394
Hartman, Charles R., Vincennes, Ind. Spring attachment for agricultural implements	386,962	July 31	2456	645	44	510
Hartman, John, Jr., Philadelphia, Pa. Sash-holder	381,131	Apr. 17	1274	341	43	265
Hartman, John, Jr., Philadelphia, Pa. Cable railway	389,887	Sept. 25	1663	440	44	1411
Hartman, Samuel M., Reading, Pa. Trace-eye protector	383,526	May 29	2476	634	43	1019
Hartman Steel Company. (See McCool, William A., assignor.)						
Hartman, William M., Denver, Colo. Combined concentrator and amalgamator	382,701	May 15	1251	327	43	768
Hartman, Zachary T., assignor of one-half to P. Wunderle, Philadelphia, Pa. Candy-dropping machine	380,108	Mar. 27	1866	{ 496 497 536 538 }	42	1347
Hartman, Zachary T., assignor of one-half to Philip Wunderle, Philadelphia, Pa. Machine for manufacturing and printing articles of confectionery	391,607	Oct. 23	1991	{ 537 538 }	45	410
Hartmann, Hermann L. P. C., Bay Ridge, N. Y. Freight-car	393,229	Nov. 20	1533	401	45	908
Hartness, James, assignor to Union Hardware Company, Torrington, Conn. Clutch for wheels and axles	378,957	Mar. 6	134	39	42	992
Hartness, James, assignor to Union Hardware Company, Torrington, Conn. Lock	384,441	June 12	895	234	43	1300
Hartness, James, assignor to Union Hardware Company, Torrington, Conn. Cleaner for gun-barrels	388,133	Aug. 21	1455	390	44	866
Hartness, James, Torrington, Conn., and J. J. Tower, Brooklyn, N. Y.; said Hartness assignor to said Tower. Carpenter's plane	392,425	Nov. 6	369	91	45	663
Hartshorn, Stewart, Short Hills, N. J. Attaching window-shades to rollers	391,044	Oct. 16	1223	325	45	251
Hartson, Thomas D. (See Rariden, Francis M., assignor.)						
Hartung, Louis C., and W. A. Haussner, Stillwater, Minn. Ice-cutting machine	390,365	Oct. 2	237	63, 64	45	50
Hartwell, David S., Marseilles, Ohio. Fence	380,034	Mar. 27	1760	471	42	1325
Hartwell, George H., Cambridgeport, Mass. Extension-casel	391,608	Oct. 23	1993	538	45	410
Hartwell, Newton W., Louisville, Ky. Coin-released height-measuring machine	387,717	Aug. 14	795	204	44	731
Hartwell, Newton W., Louisville, Ky. Telephone-support	387,718	Aug. 14	797	205	44	731
Hartz, Henry V., Cleveland, Ohio. Snatch-block	387,071	July 31	2581	679	44	533
Harvey, Alfred, et al. (See Shoemaker, George W., assignor.)						
Harvey, Francis H., assignor of one-half to J. S. Pearce, Baton Rouge, La. Nut-lock	393,303	Nov. 20	1640	432	45	928
Harvey, George H., assignor to A. C. Ellis, Pittsburg, Pa. Preserve-jar fastening	376,953	Jan. 24	1786	469	42	364
Harvey, George H., assignor to A. C. Ellis, Pittsburg, Pa. Fruit-jar	388,488	Aug. 28	1989	534	44	976
Harvey, George S., Hawkinsville, Ga. Combined collar and hane	391,708	Oct. 23	2132	576	45	438
Harvey, Hayward A., Orange, N. J. Wire screw-nail	377,452	Feb. 7	158	36	42	525
Harvey, Hayward A., Orange, N. J. Rolled-headed wood-screw and making the same	377,453	Feb. 7	158	37	42	525
Harvey, Hayward A., Orange, N. J. Machine for making washers	379,393	Mar. 13	765	207	42	1117
Harvey, Hayward A., Orange, N. J. Screw-swaging machine	383,949	June 5	158	46, 47	43	1151
Harvey, Hayward A., Orange, N. J. Wide-range yielding washer	385,621	July 3	438	113	44	85
Harvey, Hayward A., Orange, N. J., assignor to Harvey Steel Company, of New Jersey. Treating low steel	376,194	Jan. 10	664		42	138
Harvey, Isaac, Sr., Daguer Mines, Pa. Air-brake	378,365	Feb. 21	1536	401	42	811
Harvey, James A. (See Owen and Harvey.)						
Harvey, John. (See Jackson and Harvey.)						
Harvey, Patrick, Chicago, Ill. Siphon-closet flushing and regulating device	376,090	Jan. 10	512	137	42	109
Harvey Steel Company. (See Harvey, Hayward A., assignor.)						
Harvey, Thomas W., Orange, N. J. Portable photographic developing-box	385,264	June 26	2139	545	43	1560
Harvey, Wirt B., Memphis, Tenn. Secondary electric clock	377,895	Feb. 14	839	215	42	670
Harwood, Alphonzo A., McKeesport, Pa. Oil-furnace	383,123	May 22	1869	{ 488 489 }	43	899
Harwood, Henry L., and L. B. White, assignors to S. R. White & Bro., Norfolk, Va. Harrow-tooth	377,359	Jan. 31	2379	688	42	483
Harwood, Herbert J., Littleton, Mass. Projectile for fire-arms	375,936	Jan. 3	287	77	42	59
Harwood, Herbert J., Littleton, assignor to Harwood Manufacturing Company, Boston, Mass. Folding chair or settee	379,066	Mar. 6	296	86	42	1022
Harwood, Herbert J., Littleton, assignor to Harwood Manufacturing Company, Boston, Mass. Folding chair	381,367	Apr. 17	1608	430	43	330
Harwood, Herbert J., Littleton, assignor to Harwood Manufacturing Company, Boston, Mass. Folding chair or settee	391,965	Oct. 30	2513	680	45	524
Harwood Manufacturing Company. (See Harwood, Herbert J., assignor.)						
Hasbrouck, Cornelius J., assignor to S. P. Hasbrouck, New York, N. Y. Paper box	391,743	Oct. 23	2174	587	45	446
Hasbrouck, Oscar, Jr., Modena, N. Y. Horse-tail tie	376,151	Jan. 10	609	164	42	128

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Hasbrouck, Sarah P. (See Hasbrouck, Cornelius J., assignor.)						
Haseltine, James E. (See Spicer, Andrew J., assignor.)						
Haselton, Daniel B., Charleston, S. C. Cotton-gin	383,223	May 22	2006	526	43	927
Haselton, Daniel B., Charleston, S. C. Cotton-gin	395,230	Dec. 25	2351	602	45	1548
Haskell, Benjamin C., Boston, assignor to S. N. Tresnon, Rockport, Mass. Last-standard.	385,514	July 3	271	69	44	55
Haskell, Edward F., et al. (See Taber, Loyal C., assignor.)						
Haskell, Eugene E., Forestville, N. Y. Ship's log	384,362	June 12	787	205	43	1278
Haskell, Frank, Westbrook, Me. Machine for splitting warps	381,998	May 1	171	44, 45	43	545
Haskell, Frank, Westbrook, Me. Machine for drying warps, &c	390,963	Oct. 9	1073	{ 284 285 }	45	216
Haskell, George W., et al. (See Haskell, William H., assignor.)						
Haskell, Henry J., et al. (See Haskell, William H., assignor.)						
Haskell, William H., assignor to himself, G. W. and H. J. Haskell, Philadelphia, Pa. Thill-coupling	387,414	Aug. 7	314	80	44	633
Haskins, Charles H., New York, N. Y. Electric gas-lighter	393,304	Nov. 20	1640	433	45	928
Haskins, Charles H., Milwaukee, Wis., assignor to Western Electric Company, Chicago, Ill. Lock-out box and shunt-circuit for telephone-exchanges	378,679	Feb. 28	1997	528	42	909
Haskins, William B., Osceola, assignor of one-half to R. W. Friend, Pecan Point, Ark. Shoulder-pad	378,394	Feb. 21	1571	412	42	818
Haskins, William E., Sparland, Ill. Watering-trough for cattle	383,124	May 22	1871	489	43	900
Hasslam, William, Philadelphia, Pa. Automatic fan	391,245	Oct. 16	1496	397	45	304
Hass, Theodore M., New York, N. Y. Album-clasp	382,302	May 8	636	162	43	640
Hassenkamp, Ernst, Elberfeld, Germany, assignor, by mesne assignments, to E. N. Dickerson, Jr., New York, N. Y. Production of blue-red azo dye-stuff by the action of tetrazo-ditolyl salts on beta-naphthylamine monosulpho-acid	381,132	Apr. 17	1275	.....	43	265
Hassenkamp, Ernst, Elberfeld, Prussia, Germany, assignor, by mesne assignments, to E. N. Dickerson, Jr., New York, N. Y. Producing blue-red coloring-matter	381,471	Apr. 17	1765	.....	43	359
Hasslacher, Jacob, et al. (See Rumpf, Gustav, assignor.)						
Hasting, W. R., et al. (See Carroll, Samuel C., assignor.)						
Hastings, Fred J., assignor of one-half to J. Goodrich, Jr., Haverhill, Mass. Button-boot.	386,069	July 10	1073	287	44	220
Hat Wire Company. (See Newman, Samuel T., assignor.)						
Hatch, Charles A., et al. (See Taber, Loyal C., assignor.)						
Hatch, Eugene. (See Carroll, Henry W., assignor.)						
Hatch, Horace N., Boston, Mass. Slove	377,454	Feb. 7	160	37	42	525
Hatch, Isaac C., Santa Cruz, Cal. Cement	385,859	July 10	786	.....	44	160
Hatch, James H., San Francisco, Cal. Rubber-dam clamp	376,437	Jan. 17	1009	265	42	209
Hatch, Jerome B., Dallas, and W. N. Stroud, Waxahatchie, Tex. Wheel	391,045	Oct. 16	1224	325	45	252
Hatch, Jesse W., Rochester, N. Y. Lasting boots and shoes	378,444	Feb. 28	1660	436	42	842
Hatch, Jesse W., Rochester, N. Y. Manufacturing boots and shoes	378,445	Feb. 28	1660	436	42	842
Hatch, Jesse W., Rochester, N. Y. Lasting-machine	378,446	Feb. 28	1662	{ 436 437 }	42	843
Hatch, Jesse W., and J. Pitcher, Rochester, N. Y. Lasting-machine	378,506	Feb. 28	1745	460	42	860
Hatch, John, San Francisco, Cal. Prospecting-dredge	392,120	Oct. 30	2760	749	45	572
Hatch, Jonathan, South Windham, and J. H. George, Norwich, Conn. Caster	395,136	Dec. 25	2188	563	45	1521
Hatch, Moses E. (See Waters, Benjamin E., assignor.)						
Hatch, Stephen D., New York, N. Y. Construction and decoration of buildings	376,380	Jan. 10	920	241	42	185
Hatch, Stephen D., New York, N. Y. Fire-proof structure	376,381	Jan. 10	921	242	42	185
Hatcher, Charles L., et al. (See Davidson, William J., assignor.)						
Hatcher, Edmund N. (See Davidson, Joseph F., assignor.)						
Hatcher, Judson N., Americus, Mo. Gate	381,694	Apr. 24	2090	547	43	443
Hatcher, Richard M., St. Bethlehem, Tenn. Feeding device for sewing-machines	381,778	Apr. 24	2203	577	43	465
Hatcher, Robert E., et al. (See Davidson, William J., assignor.)						
Hatfield, George W., Texarkana, Ark., assignor to W. T. Forbes, Atlanta, Ga. Oil-press box	376,438	Jan. 17	1010	265	42	209
Hathaway, Henry E., Merrill, Wis. Clamp	382,508	May 15	1392	365	43	796
Hathaway, Philip. (See Cleeve and Parker, assignors.)						
Hathaway, Russell, and E. G. Panll, Fairhaven, Mass., assignors to Applegate Boot and Shoe Lasting Company, Portland, Me. Lasting-machine	393,760	Dec. 4	39	12	45	1079
Hathorn, Henry W., Clear Lake, Iowa. Felt boot	384,155	June 5	464	128	43	1210
Hatt, Samuel, Montreal, Quebec, Canada. Car-axle lubricator	377,754	Feb. 14	609	157	42	624
Hatten, William T. (See Rodgers and Hatten.)						
Hattersley, Alfred, Fort Wayne, Ind. Pop safety-valve	383,125	May 22	1871	489	43	900
Hattersley, Richard L., and J. Hill, Keighley, county of York, England. Loom	383,465	May 29	2374	{ 631 632 633 }	43	1000
Hattersley, Richard L., and J. Hill, Keighley, county of York, England. Weft-stop mechanism for looms	390,779	Oct. 9	811	215	45	167
Hauck, Edward J., Brooklyn, N. Y. Box or receptacle	384,156	June 5	465	128	43	1210
Haugh, Henry T., and W. S. Zickfoss, Wayne, Iowa. Nut-lock	375,813	Jan. 3	122	35	42	29
Haugh, John T., Essa, Simcoe county, Ontario, Canada. Car-coupling	386,818	July 31	2210	582	44	462
Haughtey, Michael, St. Louis, Mo. Interfering device for horses	379,644	Mar. 20	1150	304	42	1198
Haughton, James D., and W. J. Alexander, Monroe Co., near Egypt, Miss. Baling-press	379,645	Mar. 20	1151	304	42	1198
Hank, Charles D., et al. (See Cooke, Ernest W., assignor.)						
Haupt, Frederick, Woodbury, N. J. Sash-holder	393,368	Nov. 27	1744	461	45	957
Haupt, Lewis M., Philadelphia, Pa. Dike or breakwater	380,569	Apr. 3	397	{ 113 114 }	43	81
Hansch, Gustavus, Topeka, Kans. Weed-cutter	386,246	July 17	1357	357	44	279
Hanser, John A., Montgomery, Ala., assignor of one-half to J. A. Yancey, Richmond, Va. Saw-mill carriage	391,046	Oct. 16	1225	325	45	252
Hanser, Paul, Sr., and R. H. Depew, St. Paul, Minn. Malt-turning apparatus	386,467	July 24	1683	443	44	355
Hanser, Paul, Sr., and R. H. Depew, St. Paul, Minn. Malt-turning apparatus	390,299	Oct. 2	136	39	45	31
Hausman, Athanasius, Louisville, Ky. Watering-stand	380,570	Apr. 3	400	114	43	82
Hausmann, Carl. (See Wertz and Hausmann.)						
Hauss, David J., Cincinnati, Ohio. Core for the armatures of dynamos	394,978	Dec. 25	1952	503	45	1475
Hauss, George, Decatur, Ill. Hair-crimper	381,133	Apr. 17	1275	344	43	265
Hausner, William A. (See Hartung and Hausner.)						
Haut, Gustav, Perham, Minn. Brick-machine	394,979	Dec. 25	1953	503	45	1476
Haven, George F., and S. H. Post, Newark, N. J. Belt-pulley	379,111	Mar. 6	367	104	42	1034
Havens, Edwin S. (See Story, William R., assignor.)						
Havens, William, Chicago, Ill. Wire stretcher or clamp	384,255	June 12	623	168	43	1250
Havens, William R., Denver, Colo., assignor to Eclipse Wind Engine Company, Beloit, Wis. Friction-clutch. (Reissue)	10,926	May 1	609	154	43	625
Haviland, George E., Raisin, Mich. Drag-brake for vehicles	389,301	Sept. 11	777	197	44	1237
Hawes, Elisha, Sacramento, Cal. Can-opener and sheet-metal cutter	384,973	June 26	1687	438	43	1467

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Hawes, Elisha, Sacramento City, Cal. Machine for making sheet-metal lathing .....	383,866	Sept. 4	94	25	44	1090
Hawes, John, Urbana, Mo. Neck-yoke .....	391,846	Oct. 30	2343	635	45	489
Hawkes, Edward E. (See Zerr, John, assignor.) .....						
Hawkes, Leander W., Old Orchard, Me. Last .....	389,468	Sept. 11	1013	271	44	1273
Hawkes, Moses A., <i>et al.</i> (See Goodrich, Joseph, assignor.) .....						
Hawkes, Obed C., Birmingham, county of Warwick, England. Machinery for beveling the edges of plates of glass .....	378,680	Feb. 28	1999	528 } 529 }	42	909
Hawkey, John V., Greensburg, Pa. Self-lubricating vehicle-hub .....	376,152	Jan. 10	610	164	42	128
Hawkins, Adolphus, Salem, W. Va. Combined ironing-table, wash-bench, and step and extension ladder .....	393,369	Nov. 27	1745	462	45	957
Hawkins, Colin M. (See Wilson and Hawkins.) .....						
Hawkins, Franklin P., Plano, Ala. Steam-engine .....	380,110	Mar. 27	1869	497	42	1347
Hawkins, Guy, <i>et al.</i> (See Hawkins, Joseph B., assignor.) .....						
Hawkins, John T., Taunton, Mass. Automatic temperature-regulator .....	378,248	Feb. 21	1364	359	42	778
Hawkins, John T., Taunton, Mass. Tinking apparatus for printing-machines .....	382,979	May 15	1623	434	43	842
Hawkins, John T., Taunton, Mass. Lithographic-printing machine .....	385,800	July 10	787	209	44	160
Hawkins, John T., Taunton, Mass. Feed-guide for printing-machines .....	388,038	Aug. 21	1222	347	44	835
Hawkins, John T., Taunton, Mass. Sheet-delivery mechanism for printing-machines .....	389,650	Sept. 18	1305	342	44	1332
Hawkins, John T., Taunton, Mass. Sheet-delivery apparatus for printing-machines .....	393,978	Dec. 4	358	96	45	1140
Hawkins, John T., Taunton, Mass. Sheet-delivery mechanism for printing-presses .....	395,231	Dec. 25	2354	603	45	1549
Hawkins, Joseph B., assignor to J. S. Glasgow and G. Hawkins, Minneapolis, Minn. Hydrant .....	387,590	Aug. 7	604	157	44	687
Hawkins, Lorenzo D., Stoneham, and J. C. Paige, Boston, Mass., assignors to Combination Power Punch and Eyeletting Machine Company, Portland, Me. Eyeletting-machine .....	381,157	June 5	465 } 128 } 129 }	43	1210	
Hawkins, Nehemiah, Brooklyn, N. Y. Binder. (Reissue) .....	10,903	Feb. 21	1609	422	42	825
Hawkins, William B., New York, N. Y. Device for cooling ales and similar liquids .....	387,785	Aug. 14	882	228	44	748
Hawkrige, Samuel, Hoboken, N. J. Stop-cock .....	383,356	May 22	2198	581	43	962
Hawkrige, Samuel, Hoboken, N. J. Lightning flash-signal .....	390,123	Sept. 25	2013	537	44	1482
Hawks, James D. (See Dailey, Asa G., assignor.) .....						
Hawley, Alfred A., Kennebunk, Mo. Felted foot-wear .....	379,220	Mar. 13	523	147	42	1071
Hawley, Alfred A., Kennebunk, Me. Steam-box used in making felt or felted articles .....	381,012	Apr. 10	1074	285	43	217
Hawley, Charles P., New York, N. Y. Portable cleat .....	376,595	Jan. 17	1230	324	42	251
Hawley, Charles P., New York, N. Y. Combined scissors and file .....	376,596	Jan. 17	1231	324	42	251
Hawley, Charles P., New York, N. Y. Railway-tie .....	379,574	Mar. 20	1049	279	42	1179
Hawley, Charles P., New York, N. Y. Combined wood and metal railway-tie .....	379,575	Mar. 20	1051	279	42	1179
Hawley, Charles P., New York, N. Y. Metallic railway-tie .....	379,576	Mar. 20	1052	279	42	1179
Hawley, Eli J., Manchester, Vt. Method of and apparatus for feeding chilled shot in stone-sawing machines .....	381,999	May 1	173	45	43	546
Hawley, George E. (See Hawley, Robert C. and G. E.) .....						
Hawley, Joseph R., Hartford, Conn. Projectile .....	384,574	June 12	1097	288	43	1337
Hawley, Joseph R., Hartford, Conn., and H. P. Hurst, Summit, Miss. Projectile .....	388,413	Aug. 28	1887	504	44	955
Hawley, Melville C. (See Kearney and Hawley.) .....						
Hawley, Oscar M., Church's Corners, Mich. Gate-hinge .....	378,199	Feb. 21	1281	339	42	764
Hawley, Robert C. and G. E., South Bend, Ind. Apparatus for heating grain .....	394,267	Dec. 11	792	210	45	1231
Hawley, William D., Syracuse, N. Y. Clamp .....	376,304	Jan. 10	813	215	42	165
Hawn, Socrates A., assignor of one-half to R. A. Weaver, Hickory, N. C. Wheel .....	389,169	Sept. 11	1014	271	44	1273
Haworth, George D., Decatur, Ill. Corn-planter .....	380,889	Apr. 10	889	238	43	182
Haws, Andrew J., <i>et al.</i> (See Haws, William H., assignor.) .....						
Haws, James M., <i>et al.</i> (See Haws, William H., assignor.) .....						
Haws, William H., assignor of three-fourths to J. M. Haws, J. W. Flynn, Washington, and A. J. Haws, Johnstown, Pa. Nut-lock .....	377,714	Feb. 7	545	139	42	597
Hawthorn, John, New Mills, county of Chester, and S. Moorhouse, Staleybridge, county of Lancaster, England. Stop-valve .....	382,469	May 8	896	229	43	688
Hawthorne, Samuel R., Middlebury, Vt. Roofing .....	386,316	July 17	1451	384	44	297
Hax, C. Friedrich, Kempen, Bavaria, Germany. Automatic saw-filing machine .....	393,901	Dec. 4	251	67, 68	45	1120
Haxton Steam Heater Company. (See Haxton, William E., assignor.) .....						
Haxton, William E., assignor to Haxton Steam Heater Company, Kewanee, Ill. Boiler .....	381,240	Apr. 17	1426	383	43	293
Hay, Abraham T., Burlington, Iowa. Stack-furnace for reducing ores .....	390,964	Oct. 9	1075	285	45	217
Hay, Edwin L., Lilly, Ill. Hay-loader .....	381,779	Apr. 24	2205	577 } 578 }	43	465
Hay, Frank, Brooklyn, Mich. Post-anchor .....	377,070	Jan. 31	1956	514	42	404
Hay, Peter D., Detroit, Mich., assignor to Michigan Lubricator Company. Oil .....	384,762	June 19	1376	360	43	1399
Hay, William S. (See Joy, Frank L., assignor.) .....						
Hayden, Edward S., Waterbury, Conn. Electrolyzing copper .....	377,487	Feb. 7	206	50	42	535
Hayden, Henry A., New York, N. Y. Portfolio for maps, periodicals, &c .....	390,366	Oct. 2	239	64	45	50
Hayden, Hiram W., Waterbury, Conn., assignor to Holmes, Booth & Haydens, New York, N. Y. Metal tube .....	388,867	Sept. 4	95	25	44	1091
Hayden, Hiram W., assignor to Holmes, Booth & Haydens, Waterbury, Conn. Lamp-extinguisher .....	390,078	Sept. 25	1951	518	44	1469
Hayden, Hiram W., assignor to Holmes, Booth & Haydens, Waterbury, Conn. Lamp-burner .....	390,079	Sept. 25	1952	519	44	1469
Hayden, James T., assignor to Crane Bros. Manufacturing Company, Chicago, Ill. Collapsing tap .....	378,310	Feb. 21	1458	380 } 176 }	42	795
Hayden, Marshall, New Milford, Pa. Heating and ventilating stove .....	390,670	Oct. 9	653 } 175 }	45	138	
Hayden, Marshall, New Milford, Pa. Heating-stove .....	394,360	Dec. 11	936	246	45	1260
Hayden, Norman L., <i>et al.</i> (See Desmond, John, assignor.) .....						
Hayden, Randolph, Haddam, Conn. Try-square .....	392,426	Nov. 6	371	91	45	664
Hayden, Randolph, Haddam, Conn. Carpenter's bevel .....	392,427	Nov. 6	372	92	45	664
Hayden Saddlery Hardware Company, P. (See Pinkerman, James, assignor.) .....						
Hayden, Thomas, Port Hope, Ontario, Canada. Plow .....	394,071	Dec. 4	490	131	45	1165
Hayden, William B., Columbus, Ohio. Wear-plate for harness-hooks .....	388,676	Aug. 28	2259	605	44	1026
Hayden, William H., Jr., Columbus, Ohio. Combined back-hand buckle and trace-carrier .....	389,808	Sept. 18	1528	404	44	1379
Hayes, Andrew W., <i>et al.</i> (See Shaw, Edwin H., assignor.) .....						
Hayes, Charles C., Penn Yan, N. Y. Road-cart .....	391,246	Oct. 16	1497	397	45	304
Hayes, David S., Chicago, Ill. Dry closet .....	391,966	Oct. 30	2514	680	45	524
Hayes, Eugenio K., Galva, Ill. Corn-planter .....	384,363	June 12	788 } 207 }	43	1278	
Hayes, George, New York, N. Y. Bar for skylights, conservatories, &c .....	385,352	July 3	18	6	44	6
Hayes, George, New York, N. Y. Measuring-vessel .....	388,677	Aug. 28	2260	606	44	1026
Hayes, George H., and H. K. Nash, De Ruyter, N. Y. Folding wash-bench .....	391,247	Oct. 16	1497	398	45	304
Hayes, Hammond V., Cambridge, Mass. Telephone-transmitter .....	377,612	Feb. 7	393	99	42	570
Hayes, Hammond V., Cambridge, Mass. Electrical-measurement apparatus .....	381,780	Apr. 24	2207	578	43	465
Hayes, Hammond V., Cambridge, Mass. Hotel telephone system .....	395,137	Dec. 25	2129	564	45	1527

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Cr.	Vol.	Page.
Hayes, Isaac, Philadelphia, Pa. Apparatus for vaporizing and burning non-explosive oils for heating purposes.....	394,179	Dec. 11	651	175	45	1205
Hayes, John B., Detroit, Me. Snow-plow.....	384,522	June 12	1024	267	43	1323
Hayes, John J., Green Point, N. Y. Machinery for cutting logs.....	384,763	June 19	1377	361	43	1400
Hayes, John J., Brooklyn, N. Y. Apparatus for evaporating and condensing liquids.....	389,075	Sept. 4	390	102	44	1147
Hayes, John W., Portsmouth, N. H., assignor of two-thirds to W. B. Brooks, Erie, Pa. Metallic packing for stuffing-boxes.....	387,591	Aug. 7	605	157	41	688
Hayman, George W., Dushore, Pa. Fastening attachment for buckles.....	394,072	Dec. 4	491	131	45	1165
Hayna, Cleementina J. M., St. Louis, Mo. Steam-boiler.....	381,368	Apr. 17	1608	430	43	330
Hayna, Cleementina J. M., St. Louis, Mo. Grate-bar.....	394,114	Dec. 4	551	117	45	1176
Hayna, Cleementina J. M., St. Louis, Mo. Grate-bar.....	394,115	Dec. 4	552	148	45	1176
Haynes, Andre S., Rome, N. Y. Plane.....	384,844	June 19	1507	392	43	1124
Haynes, Cornelius E., assignor to A. L. Wood, trustee, Boston, Mass. Machine for making paper leather-board.....	377,071	Jan. 31	1957	514	42	404
Haynes, Cornelius E., assignor to A. L. Wood, trustee, Boston, Mass. Compound for making paper leather-board, &c.....	377,072	Jan. 31	1958	.....	42	404
Haynes, Cornelius E., assignor to E. J. Howard and A. E. Allen, Boston, Mass. Machine for waxing paper.....	394,268	Dec. 11	792	210 211	45	1231
Haynes, Ervin W., Franklin Falls, N. H. Damper-regulator.....	383,950	June 5	161	48	43	1151
Haynes, Gideon, Jr., Hingham, Mass., assignor to Pope Manufacturing Company, Portland, Me. Handle-bar for velocipedes.....	392,557	Nov. 6	555	140	45	701
Haynes, Nelson B., Chicago, Ill. Traveling display-stand.....	385,755	July 10	642	166	44	123
Haynes, Thomas, Kansas City, Mo., assignor of one-half to R. T. Coombs, New York, N. Y. Faucet.....	387,162	July 31	2719	713	41	556
Hays, James D., Mount Morris, Ill. Swing.....	382,303	May 8	637	162	43	641
Hays, James T. and T. C., Emmitsburg, Md. Milk-cooler.....	377,675	Feb. 7	488	126	42	587
Hays, Thomas A. (See Gorrell and Hays.)						
Hays, Thomas C. (See Hays, James T. and T. C.)						
Haythorn, William, Chicago, Ill. Straining device for steam-traps.....	379,160	Mar. 6	425	120	42	1016
Hazard, G. S., et al. (See Hughes, Thomas, assignor.)						
Hazard, Jonathan I., Georgetown, S. C. Oil-distributing device for sea-going vessels.....	380,111	Mar. 27	1870	498	42	1348
Hazel, William M., New York, N. Y. Button-fastener.....	380,112	Mar. 27	1871	498	42	1348
Hazell, Joseph W., Baltimore, Md. Coin-operated induction-coil.....	385,927	July 10	886	235	44	181
Hazleton, Fred S., and C. Leach, Norton, Kans. Wrench.....	377,755	Feb. 11	610	157	42	624
Hazleton, Ivory, Boston, assignor of one-half to L. Saltonstall, Newton, Mass. Car coupling.....	378,311	Feb. 21	1460	381	42	795
Hazlett, Francis. (See Donovan, Hazlett, and Johnston.)						
Hazlewood, James A., Clifton, Tex. Sulky-cultivator.....	386,583	July 24	1849	489	44	385
Heacock, Howard P., Missoula, Mont. Ter. Saw-mill.....	395,051	Dec. 25	2045	523	45	1493
Head, Frederick A., Rock Island, Ill. Wheel-plow.....	391,047	Oct. 16	1227	325 326	45	252
Head, Joseph, York, Pa. Tan-vat.....	380,890	Apr. 10	890	238	43	182
Head, Leon F., Germantown, Pa. Plastic compound.....	382,607	May 8	1113	.....	43	732
Headley, Elwood, Jersey City, N. J., assignor of one-half to W. G. Horton, Brooklyn, N. Y. Toy registering savings-bank.....	379,534	Mar. 13	978	263	42	1158
Headley, Elwood, Jersey City, N. J., and W. G. Horton, Brooklyn, N. Y. Coin receptacle and register.....	384,523	June 12	1025	267 268	43	1323
Headly, Willard L. (See Moock and Headly.)						
Headly, John F. (See Patterson and Headly.)						
Headly, John F., and J. H. Patterson, assignors to National Cash Register Company, Dayton, Ohio. Cash indicator and recorder.....	382,647	May 8	1167	301 302	43	743
Headly, John F., and J. H. Patterson, assignors to National Cash Register Company, Dayton, Ohio. Cash register and indicator.....	384,158	June 5	469	129 130	43	1211
Headly, John F., and J. H. Patterson, assignors to National Cash Register Company, Dayton, Ohio. Cash indicator and register.....	386,401	July 17	1562	414 415	41	319
Heald, David, et al. (See Talbot, Sylvanus J., assignor.)						
Heald, Edwin W., Wilmington, Del. Electric railway.....	385,928	July 10	889	235 236	44	182
Heald, Leander S., Barre, Mass. Tedder.....	386,921	July 31	2369	622	44	492
Healey, Thomas M., Cumberland, Md. Syringe.....	381,622	Apr. 24	1993	523	43	423
Healy, Byron J., Kalamazoo, Mich. Two-wheeled vehicle.....	378,447	Feb. 28	1665	437	42	843
Healy, Patrick J., et al. (See Moffat, George D., assignor.)						
Heap, William, and J. T. Braund, assignors to Heap's Patent Earth Closet Company, Muskegon, Mich. Piano or other stool.....	392,800	Nov. 13	928	237 238	45	780
Heap's Patent Earth Closet Company. (See Heap and Braund, assignors.)						
Heard, Herbert C., Bute Villa, Roath, Cardiff, Wales. Lace-fastening.....	380,113	Mar. 27	1872	498	42	1348
Heard, William H., assignor of one-half to M. J. McHenry, Jacksonville, Ark. Garden-plow.....	385,051	June 26	1825	468	43	1495
Hearn, Orin D., Lebanon, Tenn. Fence.....	378,312	Feb. 21	1461	381	42	795
Hearn, William J., New York, N. Y. Pump.....	376,382	Jan. 10	923	242	42	185
Heartley, George W. (See Warner, Daniel, assignor.)						
Heath, Able G., assignor to R. M. Wauzer, Hamilton, Ontario, Canada. Kerosene-lamp.....	389,569	Sept. 18	1163	305	44	1307
Heath, Alfred R. (See Rariden, Francis M., assignor.)						
Heath, Alfred R., Covington, Ind. Car-coupling.....	392,801	Nov. 13	930	238	45	780
Heath, George A., Geneva, Fla. Oil-carrying shell.....	379,161	Mar. 6	426	120 121 122	42	1047
Heath, George S., Hartford, Conn. Speed-indicator.....	378,836	Feb. 28	2234	594 595 596	42	955
Heath, James S., and E. C. Waters, Brantford, Ontario, Canada. Compound structural bar.....	378,003	Feb. 14	999	261	42	702
Heath, John, Jancsville, Wis. Steam-engine valve.....	388,414	Aug. 28	1888	501	41	955
Heath, Watson A., Binghamton, assignor of two-thirds to F. L. Goodenough and R. N. Randall, Windsor, N. Y. Whip-button-rolling machine.....	382,230	May 1	515	132	43	608
Heathcock, Walter, assignor of one-half to J. Henderson, West Point, Miss. Dumping-car.....	393,009	Nov. 20	1229	319	45	846
Heatley, John, Pittsburg, Pa. Furnace-stack.....	393,332	Nov. 20	1682	445	45	938
Heaton, Abner B., et al. (See Criswell, Robert D., assignor.)						
Heaton, Benton, and P. Hohmann, Humansville, Mo. Rope-cutter.....	378,004	Feb. 14	999	261	42	702
Heaton Button Fastener Company. (See Dick, Joseph C. F., assignor.)						
Heaton, Lorenzo D., assignor of one-half to A. W. Burroughs, Victoria, Tex. Insect-poison distributor.....	395,272	Dec. 25	2408	617	45	1560
Heaton, Warren, assignor of one-half to J. C. Alexander, Neosho, Mo. Post-hole digger.....	387,640	Aug. 14	676	175	44	708
Heaton, William, Newman, Ill. Draining lands, &c.....	390,780	Oct. 9	812	216	45	167
Heaton, William N., Des Moines, Iowa. Heating and ventilating buildings.....	387,681	Aug. 14	738	.....	44	721
Hebbard, Franklin, assignor to R. H. McCutcheon & Co., New York, N. Y. Book for holding playing-cards.....	393,432	Nov. 27	1832	482	45	974

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hebbard, George H., Sherburne, assignor of one-half to N. A. Bundy, Oxford, N. Y. Spring for rockers.....	380,891	Apr. 10	891	239	43	183
Hebblethwaite, John H., Rock Falls, Ill. Combined hammer, wrench, and staple-puller.....	389,384	Sept. 11	892	232	44	1250
Hebden, Richard G., and W. Thorpe, El Paso, Ill. Dust-pan.....	390,781	Oct. 9	814	216	45	167
Heberer, Adam, Alameda, Cal. Filter-press.....	381,369	Apr. 17	1609	430	43	330
Heberer, Adam, Alameda, Cal. Hydrocarbon-burner for furnaces.....	384,524	June 12	1027	268	43	1324
Heberling, Thomas H., Springfield, and A. Bernauer, Chicago, Ill. Fence-making machine.....	377,756	Feb. 14	611	157 158 159	42	624
Hebert, Hubert, Lake Linden, Mich. Store-service apparatus.....	388,559	Aug. 28	2083	561	44	993
Heck, Louis, Newark, N. J. Automatic gas-light extinguisher.....	381,370	Apr. 17	1611	431	43	330
Heckert, William. (See Scribner and Heckert.)						
Heckert, William. (See Taylor and Heckert.)						
Heckert, William, Yonkers, N. Y., assignor to B. Butterworth, trustee, Cincinnati, Ohio. Cable conduit and truck.....	382,810	May 15	1393	366	43	796
Heckert, William, Yonkers, N. Y., assignor to B. Butterworth, trustee, Cincinnati, Ohio. Driving machinery for cable roads.....	383,466	May 29	2381	633 634	43	1002
Heckert, William, Yonkers, N. Y., assignor to B. Butterworth, trustee, Cincinnati, Ohio. Chain-grip for cable roads.....	384,689	June 19	1272	333	43	1379
Hecox, Charles, assignor of two-thirds to H. Bartlett and J. H. Whitmore, Midland, Mich. Clamping-collar for attaching hose.....	386,882	July 31	2308	607	44	480
Hedderwick, Percy D., Acton, county of Middlesex, England. Brake for velocipedes.....	393,230	Nov. 20	1534	402	45	908
Hedge, George P., Carthage, Mo. Automatic stop for elevators.....	386,743	July 24	2068	545	44	427
Hedger, Harry D., Boston, Mass. Velocipede-handle.....	379,955	Mar. 27	1638	436	42	1303
Hedges, Marcus, Murrietta, Cal. Lifting-jack.....	383,293	May 22	2115	558	43	946
Hedges, Samuel P., Greenport, N. Y. Steam-boiler.....	388,198	Aug. 21	1556	413 414	44	885
Heenan, Richard H., Manchester, county of Lancaster, England. Rotary engine.....	394,922	Dec. 18	1862	481	45	1449
Heerbrandt, Gustav. (See Daul, Anthony, assignor.)						
Heeson, William H., Baltimore, Md. Furnace-grate.....	378,005	Feb. 14	1000	261	42	702
Heeson, William H., Baltimore, Md. Smoke-consuming furnace.....	378,006	Feb. 14	1001	262	42	702
Heffener, Henry W., York, Pa. Cigar-box catch.....	388,868	Sept. 4	96	25	44	1091
Heffernan, Edward E., Toronto, Ontario, Canada. Watch-case.....	384,623	June 19	1176	310	43	1360
Heffernan, Thomas D., assignor of one-half to H. J. Parke, Pontiac, Mich. Automatic bell-ringer.....	393,830	Dec. 4	139	38	45	1099
Heffner, George, Louisville, Ky. Nut-lock.....	377,613	Feb. 7	395	100	42	570
Heffner, George W., assignor of one-half to C. Whealan, Dayton, Ohio. Driving-belt.....	393,902	Dec. 4	252	68	45	1120
Heffner, William E., Huntingdon, Pa. Car-door fastener.....	394,571	Dec. 18	1260	329	45	1334
Hefner, John M., Marietta, Tex. Hoe.....	394,692	Dec. 18	1460	381	45	1371
Heghorn, Marselius, assignor to F. Voss, Chicago, Ill. Device for securing wire lathing to wooden joists and studs of buildings.....	383,951	June 5	162	48	43	1151
Heghorn, Marselius, assignor to F. Voss, Chicago, Ill. Device for securing wire lathing to the wooden joists and studs of buildings.....	383,952	June 5	163	48	43	1151
Hegele, Baltasar, San José, Cal. Bottle-stopper.....	391,709	Oct. 23	2133	576	45	438
Hegeman, W. A. Ogden. (See Chadsey, William R., assignor.)						
Heiberger, August. (See Montgomery and Heiberger.)						
Heidel, Gustavos, assignor to National Self Heating Sad Iron Company, St. Louis, Mo. Self-heating sad-iron.....	379,867	Mar. 20	1513	398	42	1269
Heidenheimer, Charles, <i>et al.</i> (See Gross, Magnus, assignor.)						
Heidenheimer, Louis, <i>et al.</i> (See Gross, Magnus, assignor.)						
Heidinger, Quito B. (See Timlin and Heidinger.)						
Heidmann, Gottlieb, E. Höttinges, and C. Egen, assignors to Heidmann & Höttinges, Barmen, Prussia, Germany. Machine for manufacturing buttons.....	383,881	June 5	45	15	43	1130
Heidmann & Höttinges. (See Heidmann, Höttinges, and Egen, assignors.)						
Heilbrunn Söhne. (See Fleck, Bernhard, assignor.)						
Heilman, Daniel H., <i>et al.</i> (See Friend, Samuel, assignor.)						
Hein, Charles J. P., St. Louis, Mo. Hose-bridge.....	386,008	July 10	990	264	44	202
Hein, Hermann, Ober Döbling, near Vienna, Austria-Hungary. Stove.....	393,231	Nov. 20	1535	402	45	908
Heinmann, Salomon, New York, N. Y. Globe for electric lamps.....	393,704	Nov. 27	2251	590	45	1058
Heimann, Salomon, New York, assignor of two-thirds to F. L. Pommer, Stapleton, and A. E. Hachfield, Brooklyn, N. Y. Treating peat.....	378,395	Feb. 21	1572		42	818
Heimann, Salomon, New York, N. Y., assignor of eleven-twentieths to I. H. Brown, Plainfield, N. J. Non-conducting composition.....	393,644	Nov. 27	2164		45	1042
Heimlich, John, assignor of one-half to E. Thierwechter, Oak Harbor, Ohio. Car starter and brake.....	380,681	Apr. 10	574	157	43	124
Heine, August, Silver Creek, N. Y. Middlings-purifier.....	382,873	May 15	1474	387	43	813
Heine, Herman, Milwaukee, Wis. Cirenlar-knitting machine.....	390,965	Oct. 9	1077	285 286	45	217
Heine, Herman, assignor to H. G. Underwood, Milwaukee, Wis. Clothes-drier.....	382,422	May 8	815	208	43	674
Heinecke, Martin, Carlinville, Ill. Straw-stacker.....	384,974	June 26	1688	438 439	43	1467
Heineman, Solomon E., Detroit, Mich. Capsule-filler.....	395,138	Dec. 25	2192	564	45	1521
Heinemann, Adolph, Hagen, Germany. Device for bathing the head.....	379,646	Mar. 20	1152	305	42	1198
Heinemann, Theodore P., assignor of one-half to F. T. Roots, Connersville, Ind. Sign-advertising-card, &c.....	386,780	July 24	2124	558	44	437
Heinemann, Theodore P., assignor of one-half to F. T. Roots, Connersville, Ind. Sign or advertising-card.....	386,883	July 31	2309	608	44	480
Heinig, Frederick E., and S. Leidigh, Louisville, Ky. Cork-retainer.....	378,007	Feb. 14	1003	262	42	703
Heinke, Horst, New York, N. Y. Ink-blotter.....	379,067	Mar. 6	297	86	42	1022
Heinold, Samuel L. (See Ralya and Heinold.)						
Heintz, Fritiof. (See Schlachter and Heintz.)						
Heinz, Adam, <i>et al.</i> (See Stark, Michael J., assignor.)						
Heinzelman, Otto, assignor of one-third to J. E. Thomas, Belleville, Ill. Side-bar vehicle.....	377,382	Feb. 7	25	8	42	499
Heinzelmann, William. (See Maerner, Henry, assignor.)						
Heise, John L., Union, Ohio. Weather-protector for carriages.....	377,105	Jan. 31	2013	528	42	414
Heisel, Henry, assignor of one-half to C. P. Gregory, Stillwater, Minn. Chimney-cowl.....	387,682	Aug. 14	740	189	44	721
Heiser, William, Buffalo, N. Y. Man-hole cover.....	390,595	Oct. 2	555	147	45	112
Heisler, Charles, St. Louis, Mo. Regulator for dynamo-electric machines.....	379,956	Mar. 27	1639	437	42	1303
Heisler, Charles, St. Louis, Mo. Incandescent-electric-lamp holder and cut-out.....	380,114	Mar. 27	1874	498	42	1348
Heisler, Charles, St. Louis, Mo. Alternating-current dynamo-electric machine.....	380,115	Mar. 27	1876	499	42	1349
Heisler, Charles, St. Louis, Mo. Incandescent electric-lamp holder and cut-out.....	380,202	Mar. 27	1992	533	42	1372
Heisler, Charles, St. Louis, Mo. System of incandescent lighting.....	392,513	Nov. 6	493	124	45	688
Heisler, Charles, St. Louis, Mo. Cut-out for electric lamps.....	394,180	Dec. 11	652	175	45	1205
Heister, William C., Springfield, Ohio. Hydrocarbon-oil burner.....	392,802	Nov. 13	931	238	45	781



## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Heitling, Ludwig E., Berlin, Germany. Paper-file.....	390,596	Oct. 2	556	147	45	112
Heitman, Fred M. (See Cromer and Gavin, assignors.)						
Heitman, Fred M. (See Gavin and Cromer, assignors.)						
Heitmann, Henry, New Rochelle, N. Y. Motor.....	395,232	Dec. 25	2356	603	45	1549
Heitzman, Charles J., New York, N. Y. Express-call.....	381,472	Apr. 17	1766	{ 471 472 }	{ 43	360
Held, Minnie E. (See Whinery, David A., assignor.)						
Helfenberger, William, G. W. and C. M. Kiler, Indianapolis, Ind. Fence-post.....	394,854	Dec. 18	1740	451	45	1427
Helland, Hans, and F. Matzow, Houston, Tex. Station-indicator.....	391,529	Oct. 23	1888	507	45	388
Hellenberg, Adolph, New York, N. Y. Necktie-fastener.....	381,036	June 5	289	81	43	1176
Hellenbrand, Charles W., Salem, Oreg. Receptacle and heater for tea, coffee, milk, &c.....	383,572	May 29	2536	670	43	1031
Heller, Cyrus, Williamsport, Pa. Toy picture.....	390,966	Oct. 9	1079	286	45	217
Heller, Eli G., Hastings, Nebr. Letter-box.....	391,710	Oct. 23	2133	576	45	438
Heller, Frederick, and I. G. Hooper, Newark, N. J.; said Hooper assignor to said Heller. Machine for forming balls, &c., from plastic material.....	379,068	Mar. 6	298	87, 88	42	1022
Heller, Gottlieb, Dillon, Kans. Mill-feed.....	381,371	Apr. 17	1612	431	43	331
Heller, Louis, Warrenton, Tex. Cotton chopper and cultivator.....	378,958	Mar. 6	135	39, 40	42	993
Helm, Albert J., Winstonsborough, Tex. Back-band.....	376,091	Jan. 10	514	137	42	110
Helm, Harrison, Godwin, Tenn. Remedy for scrofula.....	379,651	Sept. 18	1309		41	1333
Helm, John, Omaha, Nebr., assignor to L. Helm, St. Louis, Mo. Car-coupling.....	385,929	July 10	892	236	44	183
Helm, John, Omaha, Nebr., assignor to L. Helm, St. Louis, Mo. Grip-gear for cable street-railways.....	385,930	July 10	893	237	44	183
Helm, John, Omaha, Nebr., assignor to L. Helm, St. Louis, Mo. Grip-gear for cable street-railways.....	394,555	Dec. 18	1742	{ 451 452 }	{ 45	1427
Helm, Louis. (See Helm, John, assignor.)						
Helm, Nathan B. (See Hunt, Helm, and Ferris.)						
Helmer, Melchert F., Mechanicsville, Iowa. Car-stove.....	385,555	July 3	331	86	44	67
Helmer, Philip, Clinton, Iowa. Electro-magnetic dental hammer and plugger. (Reissue). 10,940	10,940	June 26	2257	578	43	1581
Helms, Allen W., Aylesworth, Ind. Bridle-bit.....	389,609	Sept. 18	1529	405	44	1379
Helms, Charles H., Poughkeepsie, N. Y., assignor to G. H. P. Flagg, trustee, Boston, Mass. Lasting-tool.....	382,874	May 15	1476	387	43	813
Helton, Douglas E., Ogden, Ill. Gate.....	390,124	Sept. 25	2014	537	44	1483
Heltsley, James M., Clifty, Ky. Churn.....	393,069	Nov. 20	1309	341	45	863
Heltsley, William D., Greenville, Ky. Animal-trap.....	386,009	July 10	992	264	44	203
Heltzle, Julius, St. Louis, Mo. Stop and waste cock.....	389,652	Sept. 18	1310	342	44	1333
Helvey, George H., assignor to Hooven, Owens & Rentschler Company, Hamilton, Ohio. Journal-bearing.....	380,035	Mar. 27	1761	472	42	1326
Helwitz, Ellis S., Watertown, assignor of one-half to D. W. Crosby, Boston, Mass. Ventilated garment.....	385,306	June 26	2212	567	43	1573
Hemann, Bernard, Belleville, Ill. Cut-nail machine.....	386,317	July 17	1453	384	44	297
Hemann, Egbert W., and E. C. Thayer, Areluis, Mich. Vehicle-wrench.....	393,903	Dec. 4	254	69	45	1120
Hemingway, Frederick B., assignor to Hemingway & Kelly, Clinton, Iowa. Device employed in the manufacture of spring-bottoms of lounges and other articles of furniture.....	380,323	Apr. 3	24	7	43	7
Hemingway, Frederick B., assignor to Hemingway & Kelly, Clinton, Iowa. Bed-lounge.....	387,513	Aug. 7	467	123	44	664
Hemingway & Kelly. (See Hemingway, Frederick B., assignor.)						
Hemmenway Company, E. S. (See Hemmenway and Stratton, assignors.)						
Hemmenway, Eugene S., Boston, and G. F. Stratton, Malden, Mass., assignors to E. S. Hemmenway Company, Portland, Me. Pillow-sham holder.....	378,396	Feb. 21	1573	412	42	818
Hemming, Benjamin, New Haven, Conn. Fire-arm.....	377,854	Feb. 14	780	199	42	658
Hempel, Alwin, Dresden, Saxony, Germany. Magnetic cleaning apparatus.....	390,229	Oct. 2	53	15	45	14
Hemphill, James. (See Fawell and Hemphill.)						
Hemphill, James, Pittsburg, Pa. Apparatus for welding tubes.....	384,975	June 26	1689	439	43	1468
Hemphill, James, Pittsburg, Pa. Mold.....	384,976	June 26	1691	439	43	1468
Hemsath, Augustus, Zehner, assignor of one-half to A. J. Ziegler, Hazleton, Pa. Rotary engine.....	379,112	Mar. 6	367	105	42	1035
Hen, Leon, and R. Weinmann, Brussels, Belgium. Electric igniting apparatus.....	382,231	May 1	516	132	43	608
Henarie, D. V. B., et al. (See Leak, Crapo, assignor.)						
Henchoz, Auguste and F., Locle, Switzerland. Stop-watch.....	392,729	Nov. 13	818	208	45	758
Henchoz, Fritz. (See Henchoz, Auguste and F.)						
Hendershot, Jonathan, Evelyn, W. Va. Car-coupling.....	376,244	Jan. 10	736	196	42	151
Henderson, Albert H. (See Ries, Elias E., assignor.)						
Henderson, Albert H. (See Ries and Henderson.)						
Henderson, Andrew M., and J. W. Martin, Fort Collins, Colo. Spark-arrester.....	372,507	Feb. 28	1746	461	42	861
Henderson, Benjamin L. (See Stier, Josephus, assignor.)						
Henderson, Cavan, assignor of one-half to J. W. Horne, Boston, Mass. Combination-lock.....	387,300	Aug. 7	157	42	44	601
Henderson, David, Brockton, Mass. Animal-trap.....	392,674	Nov. 13	731	186	45	740
Henderson, George, Sioux City, Iowa. Mechanical movement.....	389,509	Sept. 11	1068	283	44	1282
Henderson, Henry A. (See Thompson, John W., assignor.)						
Henderson, Henry T., Keokuk, Iowa. Washing-machine.....	385,622	July 3	439	113	44	85
Henderson, Hugh C., assignor of one-half to N. M. Bell, San Francisco, Cal. Shingle.....	380,203	Mar. 27	1995	534	42	1372
Henderson, James. (See Horne and Henderson.)						
Henderson, James L., Bloomington, Ind. Corn-planter.....	380,571	Apr. 3	401	114	43	82
Henderson, James P. (See Mandel and Henderson.)						
Henderson, John. (See Heathcock, Walter, assignor.)						
Henderson, John, Fontanelle, Iowa. Hog-trap.....	387,301	Aug. 7	158	42	44	601
Henderson, John G., Keokuk, Iowa. Roll-paper holder and cutter.....	391,609	Oct. 23	1994	538	45	410
Henderson, William G. (See Patrick, Adie.)						
Henderson, William G., administrator. (See Fox, Adam.)						
Hendey, Arthur, Denver, Colo., assignor to C. Wahl, Milwaukee, Wis., and L. Wahl, Chicago, Ill. Ore-washer.....	382,423	May 8	815	{ 208 209 }	{ 43	674
Hendrick, William H., Ottawa, Kans. Shutter-worker.....	385,459	July 3	189	50	44	38
Hendrick, William L. (See Ufford and Hendrick.)						
Hendrick, William L., assignor of one-half to E. C. Scales, Boston, Mass. Music-rack for band instruments.....	394,856	Dec. 18	1743	452	45	1427
Hendricks, Kate, Shelbyville, Ind. Bustle.....	386,744	July 24	2070	545	44	427
Hendrickson, Henry, Breckenridge, Mo. Combined cane and camp-stool.....	389,810	Sept. 18	1330	405	41	1379
Hendrickson, James S., Olmsted, Ohio. Sawing apparatus.....	388,039	Aug. 21	1285	348	44	835
Hendrickson, James S., Olmsted, Ohio. Harness.....	388,040	Aug. 21	1286	348	44	835
Hendrickson, Joseph G., et al. (See Clamer, Francis J., assignor.)						
Hendryx, Andrew B., New Haven, Conn. Fishing-reel.....	385,031	July 10	895	237	44	183
Hendryx, Frank H. (See Greene and Hendryx.)						
Hendy, Joshua. (See Martin, John H., assignor.)						
Hendy, Joshua, San Francisco, and O. M. Loveridge, Weaverville, Cal.; said Loveridge assignor to said Hendy. Hydraulic mining apparatus.....	393,559	Nov. 27	2032	532	45	1015

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Henius, Max W., Bridgeport, Conn. Corset-clasp.....	385,710	July 10	567	147	44	118
Henizer, Nicholas, Randolph, assignor of one-half to H. Reitenour, Union City, Ind. End-gate.....	381,070	Apr. 10	1172	311	43	236
Henkle, Edward A. (See Fowler and Henkle.)						
Henley, Micajah C., Richmond, Ind. Machine for boring, drilling, driving, and withdrawing screws, &c. (Reissue).....	10,892	Jan. 3	461	124	42	93
Henley, Micajah C., Richmond, Ind. Machine for boring, drilling, &c.....	383,730	May 29	2761	728	43	1078
Henn, Eduard, Jersey City, N. J. Fuel composition.....	378,249	Feb. 21	1366		42	778
Henn, Eduard, Jersey City, N. J. Heating-stove.....	382,158	May 1	411	107	43	589
Henn, Eduard, Jersey City, N. J. Car-heater.....	385,932	July 10	896	238	44	1-3
Hennefer Maschinenfabrik, C. Renthel & Reisert. (See Reisert, Michael E., assignor.)						
Hennemeier, Louis, Jr., Jersey City, N. J., assignor to S. E. May, New York, N. Y. Co-coanut compound.....	391,530	Oct. 23	1890		45	388
Hennessy, James F., Winona, Minn. Axle-setting machine.....	375,937	Jan. 3	287	77	42	59
Hennessy, James F., assignor to himself, H. M. Kinney, and Winona Wagon Company, Winona, Minn. Sleigh-knee.....	379,394	Mar. 13	767	207	42	1117
Hennig, Ernst A. P., Dresden, Saxony, Germany. Medicine-measuring bottle.....	391,967	Oct. 30	2515	681	45	524
Henning, William B., Waterloo, Ind. Railway-tie.....	376,884	Jan. 24	1696	443	42	340
Henninger, Frederick A., assignor of one-half to J. T. Fyfer, Columbia, Mo. Frame for spectacles or eyeglasses.....	385,307	June 26	2213	568	43	1574
Henninger, Frederick A., assignor of one-half to J. T. Fyfer, Columbia, Mo. Sash-fastener.....	385,668	July 3	499	129	44	97
Henrichson, Henry J., Cincinnati, Ohio. Scale-pan.....	384,256	June 12	625	168	43	1250
Henriksen, Bernhardt E., San Francisco, Cal. Bridge for fire-hose.....	380,036	Mar. 27	1762	472	42	1326
Henrikson, Carl P., Prentiss Bay, Mich. Cut-off for steam-engines.....	391,320	Oct. 16	1599	{ 423 424 }	{ 45 45 }	322
Henry, Charles A., Monticello, assignor to W. A. Overing and A. Reichart, Sandy Spring, Iowa. Hay-loader.....	384,205	June 5	540	148	43	1326
Henry, Dennis B., Indian Bayou, La. Self-adjusting clevis.....	394,923	Dec. 18	1863	482	45	1449
Henry, Fred H., Wakefield, Mass., assignor to Wakefield Rattan Company, of Massachusetts. Car-seat.....	378,546	Feb. 28	1801	476	42	872
Henry, Hiram F., Gowanda, N. Y. Folding chair.....	380,484	Apr. 3	258	71	43	53
Henry, Hiram F., Gowanda, N. Y. Bicycle.....	393,904	Dec. 4	255	69	45	1120
Henry, Jacob B., Boston, Mass. Inhaler.....	380,720	Apr. 10	627	172	43	131
Henry, James F., assignor of one-half to W. W. Whitman, Little Falls, N. Y. Machine for making slivers for the production of clouded yarn.....	384,624	June 19	1177	310	43	1300
Henry, James F., assignor of one-half to W. W. Whitman, Little Falls, N. Y. Making slivers for the production of clouded yarn.....	384,690	June 19	1274	334	43	1379
Henry, John, Ardock, Dak. Ter. Automatic grain-meter.....	386,745	July 24	2071	546	41	427
Henry, John, assignor of two-thirds to J. G. Neilson and W. T. Shepard, Ardock, Dak. Ter. Automatic grain-weigher.....	383,126	May 22	1873	489	43	960
Henry, Peter, New York, N. Y. Watch-case pendant.....	378,959	Mar. 6	137	40	42	993
Henry, Samuel E., Huntingdon, Pa. Freight-car-door holder.....	394,924	Dec. 18	1864	482	45	1450
Henry, Sidney, Chicago, Ill., assignor to United States Arc Gas Company, of New Jersey. Gas-burner.....	385,669	July 3	501	129	44	97
Henry, Simon, Brooklyn, N. Y. Mold for measuring and partly shaping cigar-fillers.....	382,608	May 8	1114	286	43	732
Henry, Thomas J., New York, N. Y. Dental foil.....	382,085	May 1	317	83	43	572
Hensel, George S., et al. (See Forrest, William W., assignor.)						
Hensel, Martin, et al. (See Clarke, George H., assignor.)						
Henshall, Samuel, Philadelphia, Pa. Knitting-machine.....	386,819	July 31	2212	{ 582 583 }	{ 44 44 }	462
Henshall, Samuel, Philadelphia, Pa. Circular-knitting machine.....	386,820	July 31	2215	{ 583 584 }	{ 44 44 }	463
Henshall Samuel, Philadelphia, Pa. Knitting-machine.....	386,821	July 31	2217	{ 584 585 }	{ 44 44 }	463
Henshall, Samuel, Philadelphia, Pa. Knitting stockings.....	388,678	Aug. 28	2261	606	44	1026
Henshaw, Charles E., assignor to A. J. Perkins, Medford, Wis. Purifier.....	391,366	Oct. 16	1662	440	45	334
Hensil, Martin, et al. (See Robinson and Watt, assignors.)						
Hent, Reuben W., San Francisco, Cal. Roller-bearing.....	387,356	Aug. 7	230	60	41	616
Hent, Reuben W., San Francisco, Cal. Roller-bearing.....	389,653	Sept. 18	1311	343	41	1333
Hent, Reuben W., San Francisco, Cal. Roller-bearing.....	394,269	Dec. 11	793	211	45	1232
Hent, Reuben W., San Francisco, Cal. Roller-bearing.....	394,769	Dec. 18	1593	417	45	1400
Hent, Reuben W., San Francisco, Cal. Roller-bearing.....	395,052	Dec. 25	2046	528	45	1494
Hentzell, Benjamin F., San Francisco, Cal. Chimney.....	376,478	Jan. 17	1066	279	42	219
Henze, Henry C., Brooklyn, N. Y. Safety-pin.....	382,232	May 1	518	133	43	608
Henzie, John J., Jr., Deep River, Iowa. Neck-yoke coupling.....	391,048	Oct. 16	1228	326	45	252
Hepp, Valentine, Portland, Oreg. Machine for making cement pipes.....	387,641	Aug. 14	676	175	44	708
Heppard, Elwood P., Jr., Woodbury, N. J. Cable-grip.....	376,885	Jan. 24	1697	443	42	346
Heppding, Gottfried, New York, N. Y. Diamond-setting.....	393,232	Nov. 20	1338	403	45	909
Herberg, Olaf. (See Herberg, Tollef and O.)						
Herberg, Tollef and O., Hendrum, Minn. Self-expanding drill-blade.....	384,625	June 19	1178	310	43	1300
Herbertz, Friedrich A. (See Sabler, Carl, assignor.)						
Herboldsheimer, John B., assignor to Gibson, Parish & Company, Chicago, Ill. Oil-can.....	391,049	Oct. 16	1228	327	45	252
Herbrand Co. (See Bardsall and Thompson, assignors.)						
Herendeen, Almanzon, Putnam, Conn. Chimney-top.....	386,010	July 10	993	264	44	203
Herendeen, Edward W., Geneva, N. Y. Harrow.....	382,304	May 8	638	162	43	641
Hering, Carl, Philadelphia, Pa. Coupling for joining electric wires.....	379,321	Mar. 13	523	147	42	1071
Herman, Emile J., St. Louis, Mo. Screw-cutting die.....	377,614	Feb. 7	396	100	42	570
Herman, Emile J., assignor to Safety Hatch Door Company, St. Louis, Mo. Elevator-lock.....	382,980	May 15	1624	424	43	842
Herman, Fredrick, Redfield, Dak. Ter. Track-laying apparatus.....	395,053	Dec. 25	2050	529	45	1495
Hernance, Robert, Easton, N. Y. Tubular lantern.....	379,868	Mar. 20	1514	398	42	1269
Hermann, Carl J., Bielefeld, Westphalia, Prussia, Germany. Vise.....	382,360	May 8	728	{ 183 184 }	{ 43 43 }	657
Hermann, Carl J., Bielefeld, Prussia, Germany. Vise.....	391,321	Oct. 16	1601	424	45	323
Hermann, Henry, Jersey City, N. J. Machine for labeling cans.....	391,968	Oct. 30	2515	681	45	524
Hermann, Henry, assignor to B. T. Babbitt, Jersey City, N. J. Apparatus for filling cans.....	376,195	Jan. 10	667	177	42	138
Hermans, John, Chicago, Ill. Boat propelling and steering apparatus.....	379,014	Mar. 6	223	60	42	1009
Hermite, Eugène, Paris, France. Bleaching.....	382,159	May 1	412	{ 107 108 }	{ 43 43 }	589
Hermite, Eugene, and C. F. Cooper, assignors of one-third to E. J. Paterson, Pownall Road, Dalston, county of Middlesex, England. Apparatus for bleaching by electrolysis.....	378,681	Feb. 28	2001	529	42	910
Hermite, Eugene, and C. F. Cooper, assignors of one-third to E. J. Paterson, Pownall Road, Dalston, county of Middlesex, England. Apparatus for electrolysis.....	381,372	Apr. 17	1613	431	43	331
Hermite, Eugene, and C. F. Cooper, assignors of one-third to E. J. Paterson, Dalston, county of Middlesex, England. Apparatus for electric bleaching.....	379,465	Mar. 13	875	236	42	1139

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Hernandez, Melquiades, Waltham, Mass. Tuning-key	381,442	June 12	897	234	43	1300
Hernndon, George P., Birmingham, Ala. Automatic cut-off for water-pipes	392,803	Nov. 13	933	239	45	781
Hernndon, George P., assignor, by mesne assignments, to J. C. Brown and E. H. Bond, Washington, D. C. Paper-file	381,159	June 5	472	130	43	1212
Hernndon, Thomas H., Birmingham, Ala. Weighing-scale	389,076	Sept. 4	391	102	41	1148
Hero Fruit Jar Company. (See Perry, Frank W., assignor.)						
Héroult, Paul, Lauffen-Uhwiesen, Switzerland. Preparing aluminium-bronze and other alloys	387,876	Aug. 14	1014	264	41	774
Heroy, James H. and W. W., New York, N. Y. Machine for grinding and beveling plate-glass	394,980	Dec. 25	1954	503 504	45	1476
Heroy, William W. (See Heroy, James H. and W. W.)						
Herrers, Henry, Newark, N. J. Tucking-pad for hand-stamps	390,858	Oct. 9	920	243	45	187
Herr, August W., Chicago, Ill. Heater	386,127	July 17	1168	311	44	243
Herr, Christian K. (See Lehman, Simon S., assignor.)						
Herr, Henry C., Williamsville, N. Y. Belt-fastener	382,305	May 8	638	162	43	611
Herr, John K., and J. G. Dulcbohn, Elizabethtown, Pa. Stove-truck	382,361	May 8	730	181	43	637
Herron, Christian, Laupen, Switzerland, assignor to himself and A. Debarry, San Francisco, Cal. Drill-plow	383,224	May 22	2007	527	43	927
Herron, William W., Comroe, Tex. Ox-yoke	375,814	Jan. 3	123	35	42	29
Herrick, C. R., et al. (See Bennett, Calvin H., assignor.)						
Herrick, Edward. (See Smith, Thomas J., assignor.)						
Herrick, Frank A., Jackson, Mich. Rack for agricultural tools	383,527	May 29	2177	654	43	1019
Herrick, Frank J., assignor to H. C. Noble, New Britain, Conn. Heel-protector	382,260	May 1	563	142	43	617
Herrick, Frank J., New Britain, assignor of one-half to W. E. Simonds, Hartford, Conn. Statuette	378,682	Feb. 28	2002	529	42	910
Herrick, Frank J., New Britain, assignor of one-half to W. E. Simonds, Hartford, Conn. Door-button	382,086	May 1	318	83	43	572
Herrick, Frank J., New Britain, assignor of one-half to W. E. Simonds, Hartford, Conn. Door-check	383,809	May 29	2903	766	43	1105
Herring, Charles, Geneva, Ind. Flood-fence	387,072	July 31	2582	679	44	533
Herrington, Ephraim, Mount Vernon, Ga. Horse-breaking vehicle	378,837	Feb. 28	2237	596	42	955
Herrington, Ephraim, Mount Vernon, assignor of one-half to M. M. Bush, Towns, Ga. Insect-trap	378,788	Feb. 28	2140	565	42	936
Herrington, Ephraim, Mount Vernon, assignor of one-half to M. M. Bush, Towns, Ga. Animal-trap	378,789	Feb. 28	2140	566	42	936
Herrington, Ephraim, Mount Vernon, assignor of one-half to M. M. Bush, Towns, Ga. Live-bait animal-trap	378,790	Feb. 28	2141	566	42	936
Herrington, Ephraim, Mount Vernon, assignor of one-half to M. M. Bush, Towns, Ga. Corn-sheller	380,389	Apr. 3	125	37	43	27
Herrington, Ephraim, Mount Vernon, assignor of one-half to M. M. Bush, Towns, Ga. Washing-machine	386,539	July 24	1791	473	44	374
Herrington, George H., New York, N. Y. Recording speech	392,953	Nov. 13	1138	296	45	824
Herrington, Henry D., Tishoke, N. Y. Polato sorter or grader	385,114	June 26	1916	489	43	1545
Herrinton, Edward E. (See Smith and Herrinton.)						
Herrinton, Edward E., assignor of one-half to I. C. Smith, Grand Rapids, Mich. Folding bed	380,258	Mar. 27	2066	553	42	1328
Herrmann, Ernest, and L. P. Cohen, Paris, France. Furnace	385,623	July 3	440	113 114	41	86
Herrmann, Clara, Detroit, Mich. Embroidery-frame	389,811	Sept. 18	1531	405	44	1379
Herron, Francis J., and E. M. Hugentobler, New York, N. Y. Fuel-cartridge	379,697	Mar. 20	1228	327	42	1211
Herschel, Clemens, Holyoke, Mass. Apparatus for measuring the quantity of water flowing through a pipe	381,373	Apr. 17	1614	431	43	331
Herschel, Clemens, Holyoke, Mass. Apparatus for indicating and recording pressure or differences of pressure	387,877	Aug. 14	1016	264	41	774
Hersey, Ira, New York, and M. K. Conley, Brooklyn, assignors to W. Bell, New York, N. Y. Treatment of ore	378,588	Feb. 28	1864	492	42	884
Hersey Meter Company. (See Tilden, James A., assignor.)						
Hersey, Samuel S., Auburn, Me. Furnace	392,804	Nov. 13	934	239	45	7-1
Hersey, Walter H. (See Kimball and Hersey.)						
Hershey, Martin E., Harrisburg, Pa. Traction-engine	375,815	Jan. 3	123	36	42	29
Hershey, Martin E., Harrisburg, Pa. Steam-boiler setting	392,428	Nov. 6	372	92	45	661
Hertz, Jacob, London, England. Papeterie	376,954	Jan. 24	1787	469 470	42	364
Hertzler, John F. (See Gourley, Winery, and Hertzler.)						
Herzberg, Martin, assignor to Farbenfabriken, vormals Fr. Bayer & Company, Elberfeld, Germany. Manufacture of dye-stuffs	384,315	June 12	710	.....	43	1266
Herzberg, Martin, assignor to Farbenfabriken, vormals Fr. Bayer & Company, Elberfeld, Germany. Manufacture of dye-stuffs	384,316	June 12	711	.....	43	1266
Hesellon, George W., et al. (See Dennis, Benjamin F., assignor.)						
Heslin, Thomas, Watertown, N. Y. Stop for the carriages of screw-cutting lathes	387,514	Aug. 7	468	123	41	674
Hess & Bro., Jeremiah S. (See Koplin, Abraham B., assignor.)						
Hess, Charles A., et al. (See Clarke, Francis E., assignor.)						
Hess, David, Longley, Ohio. Boring post-boles	392,918	Nov. 13	1088	282	45	812
Hess, Elmer J., Cincinnati, Ohio. Die for forming spring-head clips	389,570	Sept. 18	1164	395 306	44	1307
Hess, George A., Maquoketa, Iowa. Boot-drier	386,746	July 24	2073	546	41	428
Hess, Gustavus, Monroeville, Ohio. Stove-truck	378,135	Feb. 21	1192	311	42	716
Hess, William, Monroeville, Ohio. Metal-seamer	395,139	Dec. 25	2194	564	45	1522
Hess, William A., Putney, N. Y. Fruit-basket	387,073	July 31	2583	680	41	533
Hesse, Frederick G., Oakland, Cal. Hydraulic step	385,460	July 3	190	50	41	38
Hesseltine, Herbert E., Casenovia, assignor of one-half to S. F. Stevens, Grand Rapids, Mich. File for letters	394,981	Dec. 25	1956	504	45	1476
Hessler, Jacob, assignor to W. W. Kimball Company, Chicago, Ill. Manual compuler for organs	388,489	Aug. 28	1990	534	41	976
Hessler, Jacob, assignor to W. W. Kimball Company, Chicago, Ill. Reed-organ	388,490	Aug. 28	1991	535	41	976
Heston, William, Mount Union, Ohio. Jar-fastener	377,676	Feb. 7	490	126	42	588
Heston, William, Alliance, Ohio. Car-brake	391,470	Oct. 23	1812	485	45	371
Heston, William, and J. M. Akers, Alliance, Ohio. Bottle-stopper	387,232	Aug. 7	47	11	41	581
Hetherington, John, Jr., Hayward, Cal. Trousers or overalls	381,624	Apr. 21	1995	523 524	43	423
Hetherington, John M., Manchester, county of Lancaster, England. Carding-engine	381,781	Apr. 24	2210	578	43	466
Hetherington, John M., Manchester, county of Lancaster, England. Carding-engine	388,679	Aug. 28	2262	606	41	1027
Hett, Henry, New York, N. Y. Fastener for wagon-pauncs	380,798	Apr. 10	747	205	43	157
Heuer, Edouard, Bienne, Switzerland. Stop-watch	377,896	Feb. 14	841	215	42	670
Heuer, Edouard, Bienne, Switzerland. Stop-watch	377,897	Feb. 14	843	215	42	670
Heumann, Lebrecht, Cologne, Prussia, Germany. Dress-protector	393,979	Dec. 4	361	97	45	1140

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Heusch, Edmund F. (See Bex and Heusch.)						
Hensch, Hugo, Aix-la-Chapelle, Prussia, Germany. Apparatus for preparing needle-blanks.	391,847	Oct. 30	2343	636	45	490
Heverly, James M., assignor of one-fourth to J. D. Spangle, Coalport, Pa. Railway signal-lantern	392,429	Nov. 6	374	92	45	604
Hevner, Samuel, deceased; P. B. Johnson, Baltimore, Md., administrator. Straightening walls	377,940	Feb. 14	909	234	42	685
Hewett, Charles E., Brandon, assignor of one-half to W. M. Stearns, West Rutland, Vt. Hanger for saw-frames	389,470	Sept. 11	1015	271	44	1273
Hewett, Ernest M., Newton, assignor to D. W. Crosby, trustee, Boston, Mass. Electric battery	385,308	June 26	2214	568	43	1574
Hewett, Ernest M., Newton, assignor to D. W. Crosby, trustee, Boston, Mass. Amalgamating zinc	385,309	June 26	2215		43	1574
Hewett, Ernest M., assignor to H. G. Farr, Boston, Mass. Galvanic battery	387,642	Aug. 14	680	176	44	709
Hewett, Ernest M., assignor to H. G. Farr, Boston, Mass. Galvanic battery	387,643	Aug. 14	681	176	44	710
Hewett, Ernest M., Newton, assignor to J. L. Little, Jr., Brookline, Mass. Porous cup for galvanic batteries	390,597	Oct. 2	556	147	45	112
Hewett, Reginald W., Birmingham, county of Warwick, England. Smoke-consuming furnace	376,822	Jan. 24	1605	420 421	42	329
Hewey, James H., Viroqua, assignor of one-half to H. P. Proctor, Vernon County, Wis. Axle-lubricator	388,359	Aug. 21	1811	482	44	935
Hewins, Edmund H., Boston, Mass. Device for gearing engine-shafts directly to the driven machine	388,415	Aug. 28	1890	505	44	955
Hewitt, Hamilton W. (See Huffman, Orlando, assignor.)						
Hewitt, Charles and W. W., Swanscombe, county of Kent, England. Machine for making casks	377,304	Jan. 31	2294	606 607	42	469
Hewitt, Herbert H., Chicago, Ill. Journal-bearing	392,268	Nov. 6	183	33	45	620
Hewitt, John, <i>et al.</i> (See Ponnay, Richard, assignor.)						
Hewitt, Leslie, assignor of one-half to Pratt & Letchworth, Buffalo, N. Y. Harness attachment	389,471	Sept. 11	1016	272	44	1273
Hewitt, William, Chambersburg, N. J. Telegraph-wire	379,535	Mar. 13	980	264	42	1159
Hewitt, William, Chambersburg, assignor to Trenton Iron Company, Trenton, N. J. Wire bale-tie	381,071	Apr. 10	1172	312	43	236
Hewitt, William, assignor to Trenton Iron Company, Trenton, N. J. Machine for making wire rope	390,967	Oct. 9	1081	286 287	45	218
Hewitt, William, assignor to Trenton Iron Company, Trenton, N. J. Machine for making wire rope	390,968	Oct. 9	1087	287 288 289	45	218
Hewitt, William W. (See Hewitt, Charles and W. W.)						
Hewke, Theodore S. (See Ten Broeck, Van Rensselaer, assignor.)						
Hewlett, Henry N., Oscoda, Mich. Lubricator	377,253	Jan. 31	2215	585	42	455
Hewlett, Henry N., Oscoda, Mich. Lubricator	377,254	Jan. 31	2216	586	42	455
Hewlett, William E., Merrick, N. Y. Dumping-wagon	387,415	Aug. 7	315	81	44	633
Hewson, Robert, San Francisco, Cal. Rotary vapor-engine	382,424	May 8	817	209	43	674
Hexamer, Charles J., Philadelphia, Pa. Automatic electric valve	376,651	Jan. 17	1331	350	42	269
Hexamer, Charles J., assignor to Philadelphia Time Telegraph Company, Philadelphia, Pa. Electric clock-synchronizing system	387,974	Aug. 14	1177	319 320	44	806
Hey, George W. (See Laass and Hey.)						
Heydrick, William H. H., Philadelphia, Pa. Mowing and reaping machine	386,318	July 17	1454	384	44	297
Heyl, Henry R., Philadelphia, Pa. Combined stapling and folding machine	389,147	Sept. 4	524	133	44	1169
Heyl, Henry R., Philadelphia, Pa. Stapling-machine	389,148	Sept. 4	528	134	44	1170
Heysinger, Isaac W., Philadelphia, Pa. Electric railway, power, and lighting appliance	385,413	July 3	113	32, 33	44	24
Heysinger, Isaac W., Philadelphia, Pa. Electric incandescent lamp and attachments	389,888	Sept. 25	1664	441	44	1411
Heysinger, Isaac W., Philadelphia, Pa. Electric railway	391,792	Oct. 30	2250	612 613	45	471
Heysinger, Isaac W., Philadelphia, Pa. Motor-car for electric railways	391,793	Oct. 30	2260	613	45	473
Heysinger, Isaac W., assignor to Philadelphia Novelty Manufacturing Company, Philadelphia, Pa. Hair-crimper. (R-issine)	10,936	June 5	576	157	43	1233
Heywood, Benjamin, New York, N. Y. Electric railway	392,863	Nov. 13	1016	260	45	799
Heywood Brothers & Co. (See Buckman, Benjamin J., assignor.)						
Heywood Brothers & Co. (See Taft and Jones, assignors.)						
Heywood, Gardner A. and J. D., Gordon, Nebr. Hand corn-planter	393,645	Nov. 27	2165	566	45	1042
Heywood, John D. (See Heywood, Gardner A. and J. D.)						
Heywood, John G., Worcester, Mass. Apparatus for treating sewage	392,605	Nov. 13	637	160	45	723
Heywood, John G., Worcester, Mass. Apparatus for purifying sewage	392,606	Nov. 13	640	160	45	724
Heywood, John G., Worcester, Mass. Apparatus for treating sewage	392,607	Nov. 13	642	160	45	724
Heywood, John J., Fall River, Mass. Driving band for spindles	377,937	Feb. 14	904	232	42	684
Hiatt, Charles C., Martinsville, Ohio. Barrel-swing	393,705	Nov. 27	2251	591	45	1059
Hiatt, Elwood E., assignor of one-half to R. E. Vanzant, Noblesville, Ind. Building walls	378,838	Feb. 28	2238	596	42	955
Hiatt, Thomas, Leesburg, Fla. Automatic fruit-assorter	381,241	Apr. 17	1427	383 384	43	293
Hiatt, Thomas, Leesburg, Fla. Orange sizer and separator	391,711	Oct. 23	2134	576 577	45	438
Hibbard, Angus S., New York, N. Y., assignor to American Bell Telephone Company, Boston, Mass. Protecting device for electrical appliance	377,073	Jan. 31	1958	514	42	404
Hibberd, Charles J., Annapolis, Md. Block and tackle	379,113	Mar. 6	370	105	42	1035
Hibbert, Thomas, Cochran, Ind. Weather-strip	385,711	July 10	570	148	44	118
Hibbs, James E., <i>et al.</i> (See Penoyer, Hiram, assignor.)						
Hibschman, August. (See Earnest and Hibschman.)						
Hichborn, Philip, U. S. Navy. Life-buoy	388,971	Sept. 4	243	65	44	1118
Hickey, Lawrence J., <i>et al.</i> (See Allen, Walter J., assignor.)						
Hickey, Timothy J., Pittsburg, Pa., assignor of one-half to A. Aymond, St. Charles, Mo. Car-door	393,155	Nov. 20	1425	372	45	886
Hickies, William W. (See Williamson and Hickies.)						
Hickley, Arthur S., assignor to Jenney Electric Company, Indianapolis, Ind. Apparatus for supplying liquids in gas-generators	380,584	July 24	1850	489	44	385
Hickman, Archibald, Jefferson, Pa. Lifting-jack	386,201	July 17	1267	339	44	263
Hickman, Elijah, Red Bluff, Cal. Running-gear	381,695	Apr. 24	2091	547	43	443
Hickok, Edwin H., deceased, New York, N. Y.; M. H. Hickok administratrix. Lamp-burner	386,822	July 31	2221	585	44	464
Hickok, Mary H., administratrix. (See Hickok, Edwin H.)						
Hicks, Charles, assignor to E. B. Preston, Chicago, Ill. Turn-table extension-ladder truck	383,731	May 29	2764	728	43	1079
Hicks, Daniel B., assignor of one-half to E. J. Evans, Pittsburg, Pa. Reversing mechanism for rolling-mills	380,259	Mar. 27	2067	553	42	1388

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Hicks, Edward L. (See Hicks, George D., assignor.)						
Hicks, Edward S., <i>et al.</i> (See Gordon, Lorenzo D., assignor.)						
Hicks, Frank, assignor of one-half to E. Dwyer, Buffalo, N. Y. Indicator for street cars	380,799	Apr. 10	748	205	43	157
Hicks, George D., assignor of one-half to E. L. Hicks, Sioux City, Iowa. Interest-calculating device	379,536	Mar. 13	981	264	42	1159
Hicks, John B., and F. C. Brooksbank, Cleveland, Ohio. Split pulley	385,742	July 10	571		44	118
Hicks, Norman P. (See Hill, Warren, assignor.)						
Hicks, Oliver H., Chicago, Ill. Paper receptacle	381,134	Apr. 17	1276	341	43	265
Hicks, Oliver H., Chicago, Ill. Paper receptacle	381,135	Apr. 17	1277	342	43	265
Hicks, Oliver H., assignor to Chicago Manila Paper Works, Chicago, Ill. Paper receptacle. (Reissue)	10,929	May 15	1820	476	43	879
Hicks, Thomas H., Detroit, Mich. Dynamo-electric machine	389,812	Sept. 18	1532	406	44	1379
Hicks, Walter E., Brooklyn, N. Y. Centrifugal gun	393,107	Nov. 20	1359	351	45	872
Hickson, James, Bangor, Me. Moroccan slipper	377,757	Feb. 14	615	159	42	625
Hicox, George W., Flat Rock, Mich. Smith's forge	392,153	Oct. 30	2811	763	45	581
Hiers, John, assignor of one-half to J. N. Huston, Comersville, Ind. Machine for cutting locks in hoops	391,610	Oct. 23	1994	539	45	410
Higbio, Moses S., South Amboy, N. J., and A. W. Dougherty, Brooklyn, N. Y. Asphalt compound and making the same	387,357	Aug. 7	233		44	617
Higbio, Moses S., South Amboy, N. J., and A. W. Dougherty, Brooklyn, N. Y. Bitumen compound and making the same	387,358	Aug. 7	234		44	617
Higdon, John C. (See Fischer, Frederick G., assignor.)						
Higgins, Charles J., Hallowell, Me. Tubular lantern	392,430	Nov. 6	375	93	45	665
Higgins, Charles J., Hallowell, Me. Lantern-holder	392,431	Nov. 6	377	93	45	665
Higgins, Clinton D. (See Cockfield and Higgins.)						
Higgins, Edward E., and J. James, assignors to Standard Electric Company of Vermont, St. Johnsbury, Vt. Electric-arc lamp	377,615	Feb. 7	397	100	42	571
Higgins, Frank, assignor of one-half to J. J. Freeman, Wellsville, N. Y. Road-cart	389,842	Sept. 18	1574	417	44	1387
Higgins, Frank W. (See Bishop, Jason S., assignor.)						
Higgins, James, and J. Sullivan, Grand Rapids, Mich. Felly-clip	386,983	July 31	2458	646	44	510
Higgins, James, and J. Sullivan, Grand Rapids, Mich. Fence	392,334	Nov. 6	228	59	45	638
Higgins, John H., Charleston, Me. Convertible harrow and cultivator	393,108	Nov. 20	1361	355	45	873
Higgins, John H., Charleston, Me. Harrow	393,156	Nov. 20	1426	372	45	886
Higgins, Joseph C., assignor of one-half to F. B. Kilmer, New Brunswick, N. J. Poison-bottle indicator	383,394	May 22	2260	601	43	972
Higgins, Mason A., Sugar Grove, Ill. Bottom bar for window-shades	388,041	Aug. 21	1287	348	44	836
Higgins, Milton P., Worcester, Mass. Stone-dressing tool	378,313	Feb. 21	1461	381	42	795
Higgins, Oliver, and A. J. Wheeler, Napoleon, Ohio. Metallic butter-package	389,746	Sept. 18	1445	378	44	1361
Higgins, Werner C., Norwich, Conn. Furnace-damper regulator	379,395	Mar. 13	769	208	42	1117
Higgins, William H., Forest City, Pa. Scaffold-bracket	393,560	Nov. 27	2033	532	45	1016
Higginson, Andrew, Liverpool, county of Lancaster, England. Transmitting power	376,353	Jan. 10	924	242	42	186
Higham, Daniel, Philadelphia, Pa. Engine-governing device	395,233	Dec. 25	2357	603	45	1549
Higham, Daniel, assignor to Higham Electric Motor Company, Philadelphia, Pa. Regulation of electric motors	377,255	Jan. 31	2217	586	42	455
Higham, Daniel, assignor to Higham Electric Motor Company, Philadelphia, Pa. Regulation of electric motors	379,466	Mar. 13	876	236	42	1139
Higham, Daniel, assignor to Higham Electric Motor Company, Philadelphia, Pa. Regulation of electric motors	379,467	Mar. 13	878	237	42	1139
Higham Electric Motor Company. (See Higham, Daniel, assignor.)						
Highfield, William E., Philadelphia, Pa. Whip-socket	391,611	Oct. 23	1995	539	45	410
Highland Slate Manufacturing Company. (See Manning, William, assignor.)						
Highley, Matthew, Jersey City, N. J., assignor to J. Glatz, Brooklyn, N. Y. Recovering glycerine from spent soap-lyes	392,919	Nov. 13	1089		45	813
Higley, Eben N., Somersworth, N. H. Machine for sawing and drilling railway-rails	389,149	Sept. 4	532	134	44	1170
Hilbert, John A., Carroll, Iowa. Corn harvesting and husking machine	385,861	July 10	788	209	44	160
Hild, Michael, Philadelphia, Pa. Rounding-jack for bat-brims	377,154	Jan. 31	2072	544	42	427
Hildebrandt, Fredrick, New York, N. Y. Petroleum cooking-stove	382,425	May 8	819	200	43	675
Hildesheim, Joseph, Alton, Iowa. Harrow	381,623	Apr. 24	1993	523	43	423
Hildreth, Francis, Clermont, N. J. Thill-coupling	390,019	Sept. 25	1848	490	44	1448
Hildreth, J. Homer. (See Price, Henry C., assignor.)						
Hildreth, William W., Decatur, Ind. Windmill	382,981	May 15	1025	425	43	842
Hildrup, William T., Sr., <i>et al.</i> (See Patton, William P., assignor.)						
Hile, John W., Valley Falls, Kans. Temperature-regulator for incubators	383,732	May 29	2765	728	43	1079
Hiler, George A., Grand Haven, Mich. Life-saving garment	382,306	May 8	639	163	43	641
Hill, Abram N. (See Jones, Daniel T., assignor.)						
Hill, Albert M., New Haven, Conn. Grinding-mill	395,140	Dec. 25	2195	564	45	1522
Hill, Alexander J., Rockford, Ill. Furnace	388,360	Aug. 21	1813	482	44	935
Hill, Alva T., <i>et al.</i> (See Eastwick, Arthur E., assignor.)						
Hill, Charles, Los Angeles, Cal. Permutation-lock	389,703	Sept. 18	1382	362	44	1348
Hill, Charles A. (See Carroll and Hill.)						
Hill, Charles E. (See Eastman, John A., assignor.)						
Hill, Charles G., Arnot Hill, county of Nottingham, England. Machine for manufacturing ruching	387,878	Aug. 14	1019	264	44	775
Hill, Charles S., <i>et al.</i> (See Leighton, Carleton F., assignor.)						
Hill, Christian C., assignor, by mesne assignments, to E. W. Blatchford, Chicago, Ill. Cartridge-loading machine	389,221	Sept. 11	631	163	44	1199
Hill, Christian C., assignor, by mesne assignments, to E. W. Blatchford, Chicago, Ill. Cartridge-loading machine	389,385	Sept. 11	893	232	44	1250
Hill, David H., Philadelphia, Pa. Circular-knitting machine	393,010	Nov. 20	1231	320	45	847
Hill, Donald, Storm Lake, Iowa. Flame-ign coupling	376,305	Jan. 10	814	215	42	165
Hill, Ebenezer, South Norwalk, Conn. Recoil-cushion for gun-carriages	378,314	Feb. 21	1462	382	42	796
Hill, Ebenezer, South Norwalk, Conn. Recoil-cushion for gun-carriages	379,783	Mar. 20	1353	360	42	1239
Hill, Ebenezer, South Norwalk, Conn. Valve for air-compressors	393,980	Dec. 4	362	97	45	1140
Hill, Edward. (See Blaine and Hill.)						
Hill, Elijah R. (See Hill, John R. and E. R.)						
Hill, Francis, Sandusky County, Ohio. Buggy-top	389,222	Sept. 11	645	165	44	1202



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Hill, Frederick M. (See Howard and Hill.)						
Hill, George P. (See Beckwith, Eugene K., assignor.)						
Hill, George P., and A. L. Washburn, Niantic, assignors of one-half to N. S. Perkins, New London, Conn. Coin-controlled weighing-scale	389,223	Sept. 11	646	{ 165 166 }	44	1202
Hill, George S., Lynn, assignor to J. Reece, Boston, Mass. Machine for finishing button-holes	376,245	Jan. 10	737	196	42	151
Hill, Henry. (See Mathews and Hill.)						
Hill, Henry T., Manchester, N. H. Electric signal	388,869	Sept. 4	97	26	44	1091
Hill, James. (See Hattersley and Hill.)						
Hill, James, Melbourne, Victoria. Apparatus for tilting casks	376,652	Jan. 17	1333	350	42	269
Hill, James, Arkansas City, Kans. Railway tie and joint	378,930	Mar. 6	100	29	42	986
Hill, James, Wilkes-Barré, Pa., assignor to I-X L Pump Company, Goshen, Ind. Step-ladder	377,616	Feb. 7	398	{ 100 101 }	42	571
Hill, James D., et al. (See Durrin, Warren A., assignor.)						
Hill, James W., St. Louis, Mo. Water-service apparatus	375,748	Jan. 3	41	12	42	12
Hill, John R. and E. R., New Albany, Miss. Bell-collar for cattle	384,037	June 5	290	81	43	1176
Hill, Jonathan, New York, N. Y. Twine-holder	383,573	May 29	2537	670	43	1031
Hill, Justin H., Chicago, Ill. Checkrein-book	385,115	June 26	1917	459	41	1515
Hill, Levi, Maucy, Pa. Fire-escape	388,491	Aug. 28	1991	555	41	976
Hill, Lyman L., Bridgeport, Conn. Wood-turning lathe	377,617	Feb. 7	399	101	42	571
Hill, Lysander. (See Dixon, Theron S. E., assignor.)						
Hill, McCord, and J. N. Rider, Walnut Grove, assignors of one-third to W. H. Williams, Springfield, Mo. Upright wire-and-picket-fence-making machine	381,548	Apr. 21	1884	497	43	401
Hill, Mortimer F., Belleville, Ill. Package-holder	391,896	Oct. 30	2411	652	45	503
Hill, Nelson H., assignor of one-half to L. M. Smith and G. W. Brabb, Romeo, Mich. Road-cart	390,598	Oct. 2	557	147	45	112
Hill, Richard W., Chicago, Ill., assignor to American Lead and Zinc Works. Gate for railway-crossings	384,160	June 5	474	{ 130 131 }	43	1213
Hill, Samuel, Ottawa, Ontario, Canada. Saw-swage	380,758	Apr. 10	686	190	43	146
Hill, Sylvester L., Boston, Mass. Transom-lifter	376,955	Jan. 24	1788	470	42	364
Hill, Thomas, et al. (See Biggin, Mary, assignor.)						
Hill, Thomas, assignor to Smith, Hill & Co., Quincy, Ill. Steam-pump	377,938	Feb. 14	906	{ 232 233 234 }	42	684
Hill, Thomas E., Rabway, N. J. Steam-muffler	384,364	June 12	793	207	43	1279
Hill, Wade H. (See Rheuban, Abram A., assignor.)						
Hill, Warren, Towanda, Pa. Paper-folding machine	379,698	Mar. 20	1229	327	42	1214
Hill, Warren, assignor of one-half to N. P. Hicks, Towanda, Pa. Center-draft mowing-machine	392,335	Nov. 6	229	59	45	638
Hill, Warren E. (See Rowland and Hill.)						
Hill, Warren E., et al. (See Rowland, Hill, and McLachlan.)						
Hill, Warren S., Boston, Mass. Regulator for electric generators	378,547	Feb. 28	1801	476	42	872
Hill, Warren S., Boston, Mass. Armature-core for dynamos	390,301	Oct. 2	138	39	45	31
Hill, Whitney & Co. (See Whitney, Christopher F., assignor.)						
Hill, Wilber F., Manchester, Conn. Means for operating paper-cutters	379,784	Mar. 20	1355	361	42	1239
Hill, William C. (See Arnold and Hill.)						
Hill, William T. (See Seiser, Hill, and Nuttall.)						
Hill, Wilson B., Lexington, Ohio. Shoe	384,845	June 19	1509	{ 392 393 }	43	1425
Hillard, James P., et al. (See Rackale, William, assignor.)						
Hillard, James P., Fall River, assignor of one-half to G. Draper & Sons, Hopedale, Mass. Tool for weaver's use	390,599	Oct. 2	558	118	45	112
Hille, Adolph, Hopkinsville, Ky. Screw-press	391,146	Oct. 16	1359	363	45	277
Hilleary, Richard W., and J. F. Poulton, Warrenton, Va. Oil-cloth exhibitor and stand	384,626	June 19	1179	311	43	1361
Hillebrand, Louis, assignor of one-half to D. Wolf, Philadelphia, Pa. Hinge	393,305	Nov. 20	1641	433	45	929
Hiller, Frederick, Jr., San Francisco, Cal. Heater for muffis, &c.	381,519	Apr. 24	1885	497	43	401
Hiller, Gustav, Zittau, Saxony, Germany. Metallic fastener	391,050	Oct. 16	1230	327	45	253
Hillier, Walter H., Nailsworth, England. Incubator	382,527	May 8	982	{ 247 248 }	43	705
Hillman, Jndson C., assignor of two-thirds to I. L. W. Reynolds, Hagaman's Mills, and C. B. Knox, Johnstown, N. Y. Woven felted boot	388,042	Aug. 21	1238	{ 348 349 }	41	836
Hills, Christian. (See Purviance and Hills.)						
Hills, George W. (See Fletcher, Elmer, assignor.)						
Hillsley, John T. (See Lilley, Henry, assignor.)						
Hilton, Frederick S., South Framingham, Mass. Hat-die	391,147	Oct. 16	1360	363	45	277
Hilton, James W., Brooklyn, N. Y. Pulverizing machine	393,905	Dec. 4	256	69	45	1121
Hilton, Joseph, Aurora, Dak. Ter., assignor of one-third to C. E. Sayre, Chicago, Ill. Veterinary surgical instrument	385,353	July 3	20	6	44	6
Himmel, Franz. (See Cruice and Himmel.)						
Himmele, Edward C., and A. H. Holt, Buffalo, N. Y. Bracket for window-sills, &c.	389,224	Sept. 11	647	166	44	1202
Himmer, Vitalis, New York, N. Y. Electric self-winding clock	391,969	Oct. 30	2517	{ 681 682 }	45	524
Hinchcliff, Henry C. (See Morley and Hinchcliff.)						
Hinchcliff, George. (See Dye, Horace L., assignor.)						
Hind, Henry C. (See Traut, Justus A., assignor.)						
Hindhaugh, William, Jr., Oswego, N. Y. Coating coffee	394,181	Dec. 11	655	176	45	1205
Hindle, Francis, et al. (See Pickering and Norton, assignors.)						
Hindle, James, et al. (See Pickering and Norton, assignors.)						
Hindley, Solomon K. (See Field and Hindley.)						
Hindley, Solomon K., Springfield, Mass. Magazine-gun	383,641	May 29	2632	696	43	1053
Hindley, Solomon K., Springfield, Mass. Magazine for fire-arms	384,161	June 5	475	131	43	1213
Hinds, Franklin P., Groton, Mass. Wire chain	392,558	Nov. 6	556	141	45	701
Hine, Frank A., Tenafly, N. J. Separator	381,374	Apr. 17	1617	432	43	331
Hine, L. G. (See Maltby, Philo, assignor.)						
Hine, William, Bethlehem, Conn. Thill-coupling	378,052	Feb. 14	1062	278	42	711
Hines, Cyrus C., et al., executors. (See Hines, Dauphin S.)						
Hines, Dauphin S., deceased, Brooklyn; M. L. and C. C. Hines, executors, and assignors to W. A. Perry, Bay Ridge, and C. C. Worthington, Irvington, N. Y. Pump	387,074	July 31	2584	680	44	531
Hines, Maria L., et al., executors. (See Hines, Dauphin S.)						
Hinkle, Andrew J., Ladoga, Ind. Gate	393,906	Dec. 4	257	70	45	1121
Hinkley, George M., assignor of one-half to E. P. Allis & Co., Milwaukee, Wis. Saw-mill carriage	378,683	Feb. 28	2003	{ 529 530 }	42	910
Hinks, Joseph, Birmingham, county of Warwick, England. Extinguisher mechanism for lamps	391,712	Oct. 23	2135	577	45	439

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.'s.	Vol.	Page.
Hinks & Son, James. (See Snelgrove, William, assignor.)						
Hinman, Frederick C., Friend, Nebr. Chuck for lathes	392,608	Nov. 13	643	161	45	724
Hinman, George B. (See Smith and Hinman.)						
Hinman, William M., Boston, Mass., assignor to Meteor Despatch Company, Portland, Me. Pneumatic cash-carrier apparatus	395,141	Dec. 25	2196	565	45	1522
Hinman, William M., Boston, Mass., assignor to Meteor Despatch Company, Portland, Me. Pneumatic cash-carrier apparatus	395,273	Dec. 25	2411	618	45	1561
Hinrichsen, Robert. (See Dunninghams, Gerhard, assignor.)						
Hinsdale, William R., Hoboken, N. J. Apparatus for breaking steel-ingot bars	384,816	June 19	1510	393	43	1425
Hinsdale, William R., Hoboken, N. J. Apparatus for severing ingot-bars	384,847	June 19	1512	394	43	1425
Hinson Car-Coupler Company. (See Hinson, J. A., assignor.)						
Hinson, James A., assignor to Hinson Standard Car Coupler Company, Des Moines, Iowa. Car-coupling	379,785	Mar. 20	1357	361	42	1340
Hinson, James A., assignor to Hinson Car-Coupler Company, Des Moines, Iowa. Car-coupling	389,510	Sept. 11	1069	281	41	1282
Hinson Standard Car Coupler Company. (See Hinson, James A., assignor.)						
Hinton, Joseph R. H., Baltimore, Md. Telephone-switch	378,250	Feb. 21	1366	359	42	778
Hinton, Joseph R. H., Baltimore, Md. Wall-case	389,747	Sept. 18	1446	378	41	1361
Hinton, Joseph R. H., assignor of one-half to Viaduct Manufacturing Company, Baltimore, Md. Apparatus for placing torpedoes on railway-tracks	388,199	Aug. 21	1557	414	41	885
Hipkins, Stephen, Jr., Martin's Ferry, Ohio. Reaming-tool	390,080	Sept. 25	1953	519	41	1170
Hipolite, Espriton, assignor of one-half to G. McDonald, Los Angeles, Cal. Door and window screen and means for securing wire-gauze in screen-frames	388,870	Sept. 4	100	26	41	1091
Hippenling, William, New York, N. Y., assignor to S. A. Ginn, Plainfield, N. J., and R. A. Donaldson, Brooklyn, N. Y. Machine for cutting blanks from tin	379,893	Mar. 20	1550	408	42	1275
Hipwell, Thomas, Allegheny, assignor to Pittsburgh Brass Company, (limited,) Pittsburgh, Pa. Fender and andiron	390,020	Sept. 25	1849	490	44	1449
Hird, Urbane B., Cleveland, Ohio. Curry-comb	381,550	Apr. 24	1885	498	43	401
Hire, David T., et al. (See Hoke and Harris, assignors.)						
Hirsch, Carl. (See Jonas and Hirsch.)						
Hirsch, Feodor, assignor to L. T. Samuel, New York, N. Y. Bag-punching machine	381,696	Apr. 24	2092	548	43	443
Hirsch, John G., Milwaukee, Wis. Cork-retainer	381,136	Apr. 17	1278	342	43	266
Hirsch, Louis. (See Goebel, Herman A., assignor.)						
Hirsch, Samuel. (See Groux, Emile, assignor.)						
Hirsching, Henry, assignor of one-half to A. Niedringhaus and F. Jungk, Salt Lake City, Utah Ter. Reduction of ores. (Reissue)	10,912	Mar. 20	1592	419	42	1284
Hirschl, Solomon, St. Louis, Mo. Tobacco-pipe	389,889	Sept. 25	1671	441	41	1412
Hirsh & Brother. (See Reichwein, Max, assignor.)						
Hirsh, Morris M. (See Mossop, William F., assignor.)						
Hirschheimer, Albert, and C. M. Mueller, La Crosse, Wis. Machine for crozing, chamfering, heweling, and trimming staves	389,571	Sept. 18	1165	306	41	1308
Hirschheimer, Albert, and C. M. Mueller, La Crosse, Wis. Machine for bending staves	391,794	Oct. 30	2264	613	45	474
Hirschheimer, Albert, and C. M. Mueller, La Crosse, Wis. Machine for jointing staves	392,432	Nov. 6	378	93	45	665
Hirt, Louis J. (See Watson and Hirt.)						
Hirtz, Richard. (See Jones, Edward C., assignor.)						
Hiscock, Joseph, H., Minneapolis, Minn. Folding bed	391,848	Oct. 30	2345	636	45	490
Hiscock, Lowell B., et al. (See Marshall, Moses J. S., assignor.)						
Hiser, Daniel B., assignor to Thomas Manufacturing Company, Springfield, Ohio. Lawn-mower reel	375,816	Jan. 3	124	36	42	29
Hisley, Frank, et al. (See Lines, Fred, assignor.)						
Hitchcock, Albert L., Pawtucket, R. I. Snap-hook	377,559	Feb. 7	315	80	42	555
Hitchcock, Charles, and E. M. Chapman, Holyoke, Mass. Bottle-stopper	394,182	Dec. 11	655	176	45	1205
Hitchcock, Charles A., Chicago, Ill., assignor to Adams & Westlake Company, of Illinois. Reclining-chair	389,926	Sept. 25	1724	456	41	1124
Hitchcock, Robert, Springfield, Mass. Vehicle-spring	380,390	Apr. 3	125	37	43	27
Hitchcock, Theron S., assignor to G. A. Waller, Seneca Falls, N. Y. Ice-dog	382,261	May 1	563	142	43	617
Hitteshew, Harvey B., Chicago, Ill. School-desk	390,859	Oct. 9	921	243	45	187
Hitt, Marcellus M., Laray, Va. Harness	388,560	Aug. 28	2085	561	44	994
Hittinger, Richard, Belmont, Mass. Transom-lifter	389,302	Sept. 11	777	197	44	1227
Hitzfeld, Fredrick G., assignor to M. E. Hitzfeld, Denver, Colo. Making shoe-makers' lasts	381,551	Apr. 24	1887		43	402
Hitzfeld, M. E. (See Hitzfeld, Fredrick G., assignor.)						
Hix Automatic Car Coupler Company. (See Hix, Oliver P., assignor.)						
Hix, Oliver P., assignor to Hix Automatic Car Coupler Company, Rockland, Me. Car-coupling	387,416	Aug. 7	317	81	44	633
Hixson, Ephraim, Trewhitt, Tenn. Plow	379,647	Mar. 20	1153	305	42	1199
Hladky, Frank J., Topeka, Kans. Steam-trap	377,305	Jan. 31	2296	607	42	470
Hoadley, Isaac N., assignor to Hoadley Packer Company, (limited,) Bradford, Pa. Packer for oil and gas wells	381,013	Apr. 10	1075	285	43	217
Hoadley Packer Company. (See Hoadley, Isaac N., assignor.)						
Hoadland, John B., assignor of one-half to E. F. Meacham, Nashville, Tenn. Track-clearer	381,072	Apr. 10	1174	312	43	236
Hobbie, Alonzo D., Bergen Point, N. J. Berth for cars, vessels, &c	381,162	June 5	477	{ 131 132 }	{ 43 43 }	{ 1213 1213 }
Hobbs, Clarence W., Lynn, Mass. Machine for staying the angles of paper boxes	379,162	Mar. 6	427	{ 120 121 }	{ 42 42 }	{ 1047 1047 }
Hobbs, Horatio. (See Gordon, Edward F., assignor.)						
Hobson, Amos H., Westminster, county of Middlesex, England. Separating gelatine from bones	394,982	Dec. 25	1957		45	1476
Hobson, Arthur E., assignor of one-half to I. J. Steane & Co., Hartford, Conn. Hydraulic shaping-press	381,242	Apr. 17	1429	384	43	293
Hobson, Arthur E., assignor of one-half to I. J. Steane & Co., Hartford, Conn. Hydraulic shaping-press. (Reissue)	10,934	May 29	2953	722	43	1111
Hobson, Samuel, Rockport, Ind. Portable fence	394,361	Dec. 11	938	247	45	1261
Hobson, William H., La Monte, Mo. Harrow-tooth and harrow attachment	376,801	Jan. 24	1571	412	42	324
Hobt, Albert, assignor to R. W. Goddard, trustee, Wellston, Ohio. Sweat-pad fastener	377,715	Feb. 7	546	140	42	577
Hochstahl, Conrad. (See Miller and Hochstahl.)						
Hockensmith, Franklin C., Irwin, Pa. Car-axle lubricator	394,362	Dec. 11	939	247	45	1261
Hocker, William L., Steelton, Pa. Truck	394,488	Dec. 11	1109	288	45	1291
Hockett, Pleasant, Stafford County, Kans. Mechanical motor	388,416	Aug. 28	1892	505	41	955
Hocking Valley Manufacturing Company. (See Kissner, Leonard, assignor.)						
Hodapp, John B., Mankato, Minn. Can-filling machine	391,795	Oct. 30	2266	614	45	475
Hodgdon, George N., Nashua, N. H. Rail-joint	385,116	June 26	1918	{ 489 490 }	{ 43 43 }	{ 1515 1515 }
Hodge, Chester A., Chicago, Ill. Barbed fence	392,433	Nov. 6	379	91	45	667

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hodgeman, Henry D., Baldwinsville, N. Y. Screw-propeller.....	390,367	Oct. 2	240	64	45	50
Hodges, Charles C., <i>et al.</i> (See Branden, Jeffries R., assignor.)						
Hodges, Charles C., <i>et al.</i> (See Ekstrom, Anton, assignor.)						
Hodges, Charles C., <i>et al.</i> (See Fish, John R., assignor.)						
Hodges, Charles C., <i>et al.</i> (See McCoy, Elijah, assignor.)						
Hodges, Henry C., <i>et al.</i> (See Branden, Jeffries R., assignor.)						
Hodges, Henry C., <i>et al.</i> (See Ekstrom, Anton, assignor.)						
Hodges, Henry C., <i>et al.</i> (See Fish, John R., assignor.)						
Hodges, Henry C., <i>et al.</i> (See McCoy, Elijah, assignor.)						
Hodges, Henry C., Detroit, Mich. Construction of cars, &c.....	375,998	Jan. 3	372	{ 99 100 }	{ 42 }	76
Hodges, Henry C., Detroit, Mich. Construction of roofs, &c.....	381,137	Apr. 17	1279	342	43	266
Hodges, Henry C., Detroit, Mich. Composite beam.....	385,624	July 3	442	114	44	86
Hodges, J. H. (See Crockett, Edward R., assignor.)						
Hodges, John R., and W. M. Davie, Portage, Wis. Lubricator.....	381,375	Apr. 17	1617	432	43	332
Hodges, John R., and W. M. Davie, Portage, Wis. Gage-cock.....	385,052	June 26	1826	468	43	1495
Hodgetts, Joseph H., Wallingford, Conn. Time-piece holder.....	391,531	Oct. 23	1891	508	45	388
Hodgins, John T., assignor of one-third to S. G. Hodgins, St. Louis, Mo. Cable-grip device.	386,585	July 24	1851	489	44	386
Hodgins, Samuel G. (See Hodgins, John T., assignor.)						
Hodgkins, Curtis H., Northeast Harbor, Me. Sash-fastener.....	392,030	Oct. 30	2605	708	45	542
Hodgman, Stillman A., assignor to Lobdell Car Wheel Company, Wilmington, Del. Calen- dering-rolls.....	387,879	Aug. 14	1020	268	44	775
Hodgman, Willis K. (See Huber and Hodgman.)						
Hodgson, Alexander, Cochranville, Pa. Combined coupling and brake.....	378,315	Feb. 21	1463	{ 382 383 330 331 }	{ 42 }	796
Hodgson, Isaac, Omaha, Nebr. Motor for street-cars.....	394,572	Dec. 18	1261		{ 45 }	1334
Hodgson, John G. (See Norton and Hodgson.)						
Hodgson, John G., assignor to E. Norton, Maywood, and O. W. Norton, Chicago, Ill. Can- heading machine.....	387,880	Aug. 14	1021	269	44	775
Hodgson, William B., and T. C. Safford, Lyon Mountain, N. Y. Ore-jigger.....	385,515	July 3	272	70	41	55
Hodgson, William H., Winona, Minn. Plow-standard.....	381,014	Apr. 10	1076	285	43	217
Hodskinson, J. Harrison, assignor of one-half to J. Hodskinson, Salem, Mass. Pegging-jack.	392,121	Oct. 30	2761	750	45	572
Hodskinson, Jabez. (See Hodskinson, J. Harrison, assignor.)						
Hodskinson, Jabez, Salem, assignor of one-half to C. F. Brown, Reading, Mass. Leather- scraping machine.....	382,262	May 1	564	{ 142 143 }	{ 43 }	617
Hodson, John. (See Sinclair and Hodson.)						
Hoduit, John. (See Parsons and Hodnit.)						
Hoe, Mary S., administratrix. (See Hoe and Weckerlin.)						
Hoe, Peter S., <i>et al.</i> (See Crowell, Luther C., assignor.)						
Hoe, Peter S., <i>et al.</i> (See Hoe and Weckerlin, assignors.)						
Hoe, Richard M., deceased, New York, and D. Weckerlin, Brooklyn, assignors to R. and P. S. Hoe, S. D. Tucker, and T. H. Mead, New York, N. Y.; M. S. Hoe executrix of said R. M. Hoe. Tinking apparatus for printing-machines.....	368,680	Aug. 28	2263	{ 606 607 }	{ 44 }	1027
Hoe, Robert, <i>et al.</i> (See Crowell, Luther C., assignor.)						
Hoe, Robert, <i>et al.</i> (See Hoe and Weckerlin, assignors.)						
Hoefer, Fred W., Freeport, Ill. Hand-truck.....	392,609	Nov. 13	644	161	45	724
Hoefer, Frederick W. (See Devore and Hoefer.)						
Hoefer, Frederick W., Florence, Ill. Whiffletree-clip.....	379,869	Mar. 20	1516	399	42	1269
Hoeffing, Charles E., London, county of Middlesex, England. Apparatus for synchroniz- ing clocks.....	390,230	Oct. 2	53	15	45	14
Hoelek, John, Chicago, Ill. Rapid tanning.....	389,150	Sept. 4	535		44	1171
Hoenigsberger, Arnold. (See McLachlan, John C., assignor.)						
Hoerder Bergwerks und Hüttenverein. (See Märklin, Adolf, assignor.)						
Hoerschelmann, Valentine, Brooklyn, N. Y. Switch for suspended railways.....	390,600	Oct. 2	558	148	45	113
Hoey, John, San Francisco, Cal. Bed-lounge.....	375,817	Jan. 3	125	37	42	29
Hoffman, Andrew E., Fort Wayne, Ind. Feed mechanism for saw-mill carriages.....	379,163	Mar. 6	428	121	42	1047
Hoffman, Anton B. (See Danforth, George E., assignor.)						
Hoffman, Charles D. (See Singleton and Hoffman.)						
Hoffman, Frederick W., New York, N. Y. Buckle.....	387,881	Aug. 14	1024	269	44	776
Hoffman, Henry, Jr., assignor to Norwalk Lock Company, South Norwalk, Conn. Manu- facture of butt-hinges.....	376,597	Jan. 17	1232	324	42	252
Hoffman, Horace J., Milwaukee, Wis. Filing case and drawer.....	382,575	May 15	1476	388	43	813
Hoffman, John W., Pullman, Ill. Electric annunciator.....	377,256	Jan. 31	2219	{ 586 587 }	{ 42 }	455
Hoffman, John W., Pullman, assignor to Pullman's Palace Car Company, Chicago, Ill. Me- chanical movement.....	392,610	Nov. 13	645	161	45	724
Hoffman, Joseph, Hoboken, N. J., assignor to G. A. Goldsmith, New York, N. Y. Rub- ber-holder for pencils.....	376,196	Jan. 10	668	177	42	138
Hoffman, Joseph, Hoboken, N. J., assignor to G. A. Goldsmith, New York, N. Y. Pro- peller-pencil.....	381,877	Apr. 24	2373	617	43	496
Hoffman, Joseph, Hoboken, N. J., assignor to G. A. Goldsmith, New York, N. Y. Eraser- holder for pencils.....	383,357	May 22	2200	581	43	962
Hoffman, Joseph G., Ste. Genevieve, Mo. Wrench.....	391,532	Oct. 23	1892	508	45	389
Hoffman, Josiah A., Addison, N. Y. Working-valve for pumps.....	388,871	Sept. 4	101	27	44	1092
Hoffman, Lanson, Hartford, Conn. Stilt.....	381,552	Apr. 24	1888	498	43	402
Hoffman Machine Company. (See Hoffman, William M., assignor.)						
Hoffman, Newton, Elizabeth, W. Va. Feed mechanism for carriages of saw-mills or other machines. (Reissue.).....	10,968	Nov. 27	2290	601	45	1066
Hoffman, Ross J., Binghamton, N. Y. Damper-regulator.....	392,514	Nov. 6	495	124	45	689
Hoffman, William H., New York, N. Y. Valve for steam-engines.....	380,037	Mar. 27	1763	472	42	1326
Hoffman, William M., Detroit, Mich., assignor to Hoffman Machine Company, of Michigan. Machine for staking, stretching, and softening leather.....	378,066	Feb. 14	1079	284	42	718
Hoffman, William M., assignor to Hoffman Machine Company, Detroit, Mich. Leather- staking machine.....	389,511	Sept. 11	1071	{ 284 285 }	{ 44 }	1283
Hoffmann, Carl. (See Von Heffner-Altenack and Hoffmann.)						
Hoffmann, Ernest G., Southgate, county of Middlesex, England. Automatic delivery-box.....	389,225	Sept. 11	648	{ 166 167 }	{ 44 }	1202
Hoffmann, Gustavus, Lebanon, Ill. Screw-key fastening for tool-handles.....	377,257	Jan. 31	2221	587	42	456
Hoffmann, Otto C., assignor to J. H. Romain, Chicago, Ill. Device for displaying advertis- ing-cards.....	380,391	Apr. 3	126	37, 38	43	27
Hoffmann, Robert. (See Puchta and Hoffmann.)						
Hoffner, George. (See Beatty and Hoffner.)						
Hofmann, Panajota W., assignor to Chemische Fabrik, vormals Hofmann & Schoetensack, Ludwigshafen-on-the-Rhine, Germany. Manufacturing salol.....	391,248	Oct. 16	1498		45	304

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Hofstatter, Adolph G., New York, N. Y. Piano-stool.....	377,856	Feb. 14	782	200	42	659
Hogan, George L., Olmstead, Ky. Electrical gas lighter and extinguisher.....	389,151	Sept. 4	536	135	44	1171
Hogan, George L., Olmstead, assignor to himself, B. T. Conway, and J. A. Kelly, Lebanon, Ky. Electric gas lighter and extinguisher.....	379,396	Mar. 13	770	208	42	1118
Hogan, John, St. Louis, Mo. Foot-rest for chairs.....	390,477	Oct. 2	395	101	45	81
Hogan, Martin J. (See Miller and Hogan.)						
Hogan, Martin J., et al. (See Lines, Fred, assignor.)						
Hogan, William J., Johnstown, Pa., assignor to Cambria Iron Company, of Pennsylvania. Manufacture of harrow-disks.....	383,882	June 5	47	15, 16	43	1130
Hogan, William J., Johnstown, Pa., assignor to Cambria Iron Company, of Pennsylvania. Machine for making disks for harrows.....	388,561	Aug. 28	2085	{ 561 562 }	{ 44 44 }	994
Hogel, Haseal A., and O. L. F. Browne, Syracuse, assignors to themselves and E. Belknap, Yonkers, N. Y. Apparatus for manufacturing salt.....	378,684	Feb. 28	2004	530	42	911
Hogg, George, Nowburg, N. Y. Machine for winding sewing-machine bobbins.....	392,336	Nov. 6	232	60	45	638
Hogg, William S., U. S. Navy. Ship's log.....	382,362	May 8	731	184	43	657
Hogsett, John E., Dayton, Ohio. Bustle.....	381,848	June 19	1515	394	43	1426
Hogsett, John E., Dayton, Ohio. Bustle.....	387,515	Aug. 7	469	{ 123 124 }	{ 44 44 }	664
Hogue, F. A., et al. (See Gerrell, John B., assignor.)						
Hogue, James B., et al. (See Carey, William, assignor.)						
Hogue, W. J., et al. (See Gerrell, John B., assignor.)						
Hohenschell, Walter B., Streator, Ill. Nut-lock.....	383,810	May 29	2903	766	43	1104
Hohenstein, Archie G., Brooklyn, N. Y., assignor to Hohenstein Manufacturing Company, Newark, N. J. Pressure-regulator.....	383,225	May 22	2009	528	43	928
Hohenstein, Archie G., Brooklyn, N. Y., assignor to Hohenstein Manufacturing Company, Newark, N. J. Automatic pressure-regulator and safety-valve.....	383,226	May 22	2010	528	43	928
Hohenstein Manufacturing Company. (See Hohenstein, Archie G., assignor.)						
Hohenstein, Sally, Pittsburg, Pa. Garment-supporter.....	391,713	Oct. 23	2136	578	45	439
Hohmann, Philip. (See Heaton and Hohmann.)						
Hohorst, Frederick, Brooklyn, N. Y. Sling and truck combined.....	379,870	Mar. 20	1516	399	42	1369
Hohsholt, Gustav, Watsonville, Cal. Advertising-clock.....	378,589	Feb. 28	1865	492	42	884
Hoit, Jacob R., Forest Home, Iowa. Sled-brake.....	376,197	Jan. 10	670	177	42	138
Hoit, Lora B., Worcester, Mass. Lifting-jack.....	390,671	Oct. 9	656	176	45	139
Hoke, Cyrus U., Reading, Pa. Medicated electric belt.....	385,556	July 3	333	86	44	67
Hoke Engraving Plate Company. (See Hoke, Joseph W., assignor.)						
Hoke, Joseph W., St. Louis, Mo., assignor to Hoke Engraving Plate Company, of Missouri. Relief-type production.....	388,361	Aug. 21	1814	483	44	935
Hoke, Lewis A., assignor of one-half to N. Stump, York, Pa. Letter-box.....	382,000	May 1	175	45	43	546
Hoke, Robley D., and I. A. Harris, assignors of one-half to C. N. Curtiss and D. T. Hine, Wessington, Dak. Ter. Mower.....	385,862	July 10	792	211	44	161
Holbert, J. W. (See Dwyer, John, assignor.)						
Holbrook, Benjamin, Chicago, Ill., assignor to Holbrook & Mann Sanitary Exhaust Ventilating Company. Ventilator.....	392,559	Nov. 6	557	141	45	701
Holbrook, Charles W., Windsor Locks, Conn. Tellurian.....	378,885	Mar. 6	41	11, 12	42	974
Holbrook, Charles W. F., Newark, N. J. Dental mandrel.....	376,653	Jan. 17	1334	350	42	269
Holbrook, Charles W. F., Newark, N. J. Dental abrading-disk.....	382,609	May 8	1115	226	43	732
Holbrook & Kane Company. (See Kittoe, Edmund F., assignor.)						
Holbrook & Mann Sanitary Exhaust Ventilating Company. (See Holbrook, Benjamin, assignor.)						
Holcomb Brothers & Co. (See Morton, William F., assignor.)						
Holcomb, George F., et al. (See Morton, William F., assignor.)						
Holcomb, H. Sherman, et al. (See Morton, William F., assignor.)						
Holcomb, Samuel C. (See Stubblefield and Holcomb.)						
Holden, Charles M., New Orleans, La. Milk-can.....	386,540	July 24	1792	473	41	374
Holden, Charlie N., and C. Rasmussen, South Englewood, Ill. Adjustable folding and convertible rocking-chair.....	389,572	Sept. 18	1167	{ 306 307 }	{ 41 41 }	1308
Holden, Edward S., San Francisco, Cal. Cable-railway crossing.....	376,153	Jan. 10	611	164	42	128
Holden, James L., Oxford, Me. Road planer and leveler.....	386,823	July 31	2222	585	44	464
Holden, John, Taunton, Mass. Supply-tank for water-closets.....	379,699	Mar. 20	1232	328	42	1215
Holden, Joseph B., Catskill, N. Y. Return-spring for chairs.....	376,886	Jan. 24	1609	443	42	346
Holder, Jacob F., et al. (See Greenawalt, Peter C., assignor.)						
Holdsworth, John W., assignor of one-half to R. Dodsworth, St. Louis, Mo. Alarm for elevators.....	381,015	Apr. 10	1077	286	43	218
Holdsworth, Nathan B., Spencerville, Ohio. Device for attaching overshoes.....	375,618	Jan. 3	136	37	42	30
Holl, Henry C., assignor of one-half to L. A. Stoner, New Berlin, Ohio. Glass monument.....	394,650	Dec. 18	1388	362	45	1357
Holland, Ed. (See Smith, Hiram B., assignor.)						
Holland, Ed. (See Smith and Homan, assignors.)						
Holland, James M., Mount Pleasant, Iowa. Ditcher and grader.....	383,574	May 29	2538	670	43	1031
Holland, John J., New Orleans, La. Bolt.....	389,504	Sept. 18	1384	362	44	1318
Holland, John N., Thorp's Spring, Tex. Grain measure and tally.....	387,302	Aug. 7	150	42	44	601
Hollie, Joseph, Brooklyn, N. Y. Machine for beveling the edges of glass plates.....	387,233	Aug. 7	48	11, 12	44	581
Holleman, Frederick A., Oisterwyk, Netherlands. Railway-brake.....	377,198	Jan. 31	2126	560	42	439
Hollenbeck Lock and Knob Company. (See Knowles, Elmer E., assignor.)						
Hollenberger, John A., assignor of one-half to J. R. McKee, Wichita, Kans. Harness-buckle.....	386,070	July 10	1071	287	44	220
Holler, Harry. (See Keene, Alvin F., assignor.)						
Holley, William A., and U. Mahin, Holland, Mich. Electro-magnetic grain-weighing scale.....	377,383	Feb. 7	26	8	42	500
Hollick, Thomas D., and W. E. Rickard, London, county of Middlesex, England. Apparatus for the transmission of power.....	381,138	Apr. 17	1280	{ 312 313 }	{ 43 43 }	266
Holliday, Isaac, San Francisco, Cal. Brace and bit.....	386,319	July 17	1455	385	44	297
Holliday, John S., Jr., et al. (See Thompson, John S., assignor.)						
Holliday, Robert A. (See Cooper, John W., assignor.)						
Holliday, Robert A., et al. (See Thompson, John S., assignor.)						
Holliday & Sons, Read. (See Holliday, Thomas, assignor.)						
Holliday, Thomas, assignor to himself and T. M. Murphy, Sanborn, Dak. Ter. Car-ro-placer and portable switch.....	377,155	Jan. 31	2072	544	42	428
Holliday, Thomas, assignor to R. Holliday & Sons, Huddersfield, county of York, England. Dyeing.....	386,247	July 17	1358	.....	44	279
Holliday, William A., Bagwell, Tex. Wagon-bed elevator.....	386,468	Sept. 24	1684	444	44	356
Hollidge, Isaac S., Washington, D. C. Book-holder.....	388,972	July 4	247	65	44	1119
Hollinger, James, New York, N. Y. Pipe-coupling for boilers.....	377,156	Jan. 31	2073	545	42	428
Hollinger, William H., Hiawatha, and J. W. Gillett, Woodbine, Kans. Grain-drill.....	386,128	July 17	1169	312	44	244
Hollings & Company, R. (See Rouse, John H., assignor.)						
Hollingsworth, Alfred, Union Valley, Kans. Corn-barvester.....	376,384	Jan. 10	926	{ 242 243 }	{ 42 42 }	186

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hollingsworth, Charles E., Minneapolis, Kans. Oven attachment.....	363,137	May 22	1874	490	43	900
Hollingsworth, Coleman, Wirt, Iowa. Feed-trough.....	355,756	July 10	642	166	44	133
Hollingsworth, William, and H. R. Travers, Baltimore, Md. Pea-sheller.....	390,125	Sept. 25	2015	537	44	1483
Hollis, Charles H., Boston, Mass. Can for printers' ink, &c.....	381,553	Apr. 24	1888	493	43	402
Hollis, Washington, Pembroke, Ky. Bracket for coffins.....	369,654	Sept. 18	1313	343	44	1334
Holloway, Charles T. (See Humphreys, Thomas H., assignor.)						
Holloway, George, Buffalo, N. Y. Child's carriage.....	393,233	Nov. 20	1539	403	45	909
Holloway, Henderson, Harrisonville, Mo. Gearing.....	380,721	Apr. 10	627	172	43	134
Holloway, Josephus F., New York, N. Y. Stone-channeling machine.....	352,528	May 8	984	248	43	706
Holloway, Lewis W. (See Dickerson, William M., assignor.)						
Holloway, William, Gilroy, Cal. Two-wheeled vehicle.....	393,234	Nov. 20	1511	403	45	909
Hollweg, Louis. (See Karriann, Julius, assignor.)						
Holly, Charles, Lockport, N. Y. Steam-engine.....	391,970	Oct. 30	2521	682	45	525
Holly, Charles, Lockport, N. Y. Lathe.....	392,337	Nov. 6	233	60, 61	45	638
Holly, Charles, Lockport, N. Y. Metal-planing machine.....	394,363	Dec. 11	940	247	45	1261
Holly, John I. (See Loughton, Joseph B., assignor.)						
Hollyday, Virginia M., Carroll, Md. Hat or bonnet holder for tables and wardrobes.....	381,016	Apr. 10	1079	286	43	218
Holm, Edward, Chicago, Ill. Furnace for heating soldering-coppers.....	381,782	Apr. 24	2211	578 579	43	466
Holman, Dudley M. (See Somes, Frank S., assignor.)						
Holman, Strange A., Chicago, Ill., assignor to S. A. Smith & Co., Brattleborough, Vt. At- tachment for baby-carriages, cribs, or cradles.....	381,878	Apr. 24	2375	617	43	496
Holmes, Booth & Haydens. (See Callan, James, assignor.)						
Holmes, Booth & Haydens. (See Hayden, Hiram W., assignor.)						
Holmes, Booth & Haydens. (See Jenkins, Nicholas, assignor.)						
Holmes, Britain. (See Holmes, Edward and B.)						
Holmes, Charles E., Haverhill, Mass. Floor-clamp.....	376,439	Jan. 17	1011	265	42	209
Holmes, Edward and B., Buffalo, N. Y. Fastener for burial-caskets.....	382,160	May 1	415	109	43	589
Holmes, Francis G. D., Phillipsburg, N. J. Breech-loading fire-arm.....	380,682	Apr. 10	575	153	43	125
Holmes, Henry E., Boston, Mass. Twist-drill.....	390,672	Oct. 9	457	176	45	139
Holmes, Henry H., Jersey City, N. J. Car-starter.....	380,260	Mar. 27	2069	553	42	1388
Holmes & Ide. (See Whited, Alvinze, assignor.)						
Holmes, James C., Durango, Tex. Brace for bedsteads.....	393,235	Nov. 20	1541	404	45	909
Holmes, James S., Buffalo, N. Y., assignor to F. Armstrong, Bridgeport, Conn. Envelope- cutter.....	388,872	Sept. 4	102	27	44	1092
Holmes, Joseph E., Washington, D. C. Apparatus for transporting and transferring gases or liquids under pressure.....	382,610	May 8	1115	286	43	732
Holmes, Joseph E., Washington, D. C., assignor to C. C. Carroll, Meadville, Pa. Crucible.....	382,087	May 1	318	83	43	572
Holmes, Joseph E., and L. N. Charles, Washington, D. C. Cable gripper and pick-up.....	391,471	Oct. 23	1813	485	45	372
Holmes, Joseph E., and L. N. Charles, assignors of one-third to B. R. Catlin, Washington, D. C. Cable gripper and pick-up.....	386,824	July 31	2223	536	44	461
Holmes, M. V. B. (See Sears, William N., assignor.)						
Holmes, Milo P., San Francisco, Cal. Vehicle-spring.....	383,512	Sept. 11	1073	285	44	1283
Holmes, Nathan L., Racine, Wis. Wagon-axle.....	380,892	Apr. 10	892	239	43	183
Holmes, Nathan L., Racine, Wis. Wagon-gear.....	380,893	Apr. 10	895	239 240	43	183
Holmes, Samuel T. (See Foote, Theodore M., assignor.)						
Holmes, Thomas J., Sioux City, Iowa. Shirt.....	394,270	Dec. 11	796	211	45	1232
Holmes, William C., Atlanta, Ga. Leveling-instrument.....	381,243	Apr. 17	1431	384	43	293
Holmes, William G., assignor of one-half to Detroit Steel and Spring Works, Detroit, Mich. Elliptic spring.....	381,925	May 1	38	10	43	532
Holmes, William H., assignor of one-half to J. E. Smith, Brooklyn, N. Y. Device for va- porizing and burning vaporized liquid hydrocarbons.....	392,031	Oct. 30	2606	709	45	542
Holmgren, Peter F., Brooklyn, N. Y., assignor to A. Craig, Newark, N. J. Metallic packing.....	385,011	July 10	994	265	44	203
Holt, Albert H. (See Himmele and Holt.)						
Holt, Edward W., Brooklyn, N. Y. Truss-pad.....	390,7-2	Oct. 9	845	216	45	168
Holt, Francis, Newark, N. J. Nurse's toilet-cabinet.....	380,038	Mar. 27	1765	473	42	1326
Holt, Frank P., Laconia, N. H. Device for adjusting the stitch-wheels of knitting-ma- chines.....	384,163	June 5	478	132	43	1213
Holt, H. A., et al. (See Burner, Allen C., assignor.)						
Holt, Hiland A., Nashua, N. H. Sash-fastener.....	385,461	July 3	102	50	44	38
Holt, James W., and A. McQuillan, Skowhegan, Me. Machine for burring and specking cloth.....	376,440	Jan. 17	1012	266	42	210
Holt, John P., Cleveland, Ohio. Anvil and vice attachment.....	394,857	Dec. 18	1744	452	45	1428
Holt, Noah W., Manchester, Mich. Separating-machine.....	384,950	June 19	1651	429 430	43	1152
Holt, Richard L., Oldham, county of Lancaster, assignor to J. Carter, Stalybridge, county of Chester, England. Nosing mechanism for self-acting spinning-mules, &c.....	380,485	Apr. 3	259	71, 72	43	53
Holt, Thomas P., assignor to G. W. & F. Smith Iron Company, Boston, Mass. Fire-escape.....	378,316	Feb. 21	1465	388	42	796
Holtkamp, Herman H., New Knoxville, Ohio. Attachment for bicycles.....	390,368	Oct. 2	210	65	45	51
Holton, Frank G., et al. (See Allison, Frank, assignor.)						
Holton, William, Anita, Iowa. Weather-strip.....	393,646	Nov. 27	2166	566	45	1042
Holtzclaw, Frank, et al. (See Eastin, John A., assignor.)						
Holtzer, Charles W., Brookline, Mass. Electric gas-lighting apparatus.....	378,677	Feb. 28	1993	527	42	909
Holtzer, Charles W., Brookline, Mass. Electric gas-lighter.....	382,001	May 1	176	46	43	546
Holtzman, James O., Beaver Creek, Md. Feed-cutter.....	390,601	Oct. 2	560	148	45	113
Homan, Robert W., Brooklyn, N. Y., assignor to Farren Bros. Company, of Connecticut. Bed-bottom.....	378,397	Feb. 21	1575	413	42	818
Homer, Charles S., assignor to Valentine & Company, New York, N. Y. Package for oils, &c.....	380,894	Apr. 10	898	240	43	184
Hommel, Adolf, Zurich, Switzerland. Reservoir-pen.....	394,183	Dec. 11	658	176	45	1206
Hommel, Joseph M., Detroit, Mich. Window-screen.....	394,469	Dec. 11	1110	289	45	1292
Honan, John J., Fall River, Mass. Let-off motion for looms.....	394,184	Dec. 11	658	176 177	45	1206
Hondlette, Fred H., et al. (See Wellman, Willard F., assignor.)						
Honigsmann, Moritz, Grevenberg, Germany. Utilizing exhaust-steam.....	381,244	Apr. 17	1432	385	43	294
Höninger, Sebastian, Milwaukee, Wis. Drilling-machine.....	380,466	Apr. 3	263	73	43	54
Honiss, William H. (See Lorenz and Honiss.)						
Honiss, William H., and W. A. Lorenz, Hartford, Conn. Mechanical motion.....	380,392	Apr. 3	128	38, 39	43	27
Hood, Arnold S., Providence, R. I. Braiding-machine.....	387,075	July 31	2585	681	44	534
Hood, Arthur F., Hopkinton, assignor to American Arms Company, Boston, Mass. Re- volver.....	391,612	Oct. 23	1996	539	45	411
Hood, Arthur F., Hopkinton, assignor to J. P. Lovell Arms Company, Boston, Mass. Re- volver.....	391,613	Oct. 23	1998	539	45	411
Hood, Charles, Turner's Falls, Mass. Picture-album.....	386,894	July 31	2310	608	44	480



## Alphabetical list of patentees—Continued.

Name, residence and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Hood, Harrison P., Indianapolis, Ind. Straight-way valve.....	375,872	Jan. 3	189	52	42	41
Hood, Harrison P., Indianapolis, Ind. Straight-way valve.....	381,849	June 19	1516	395	43	1426
Hood, John, and S. H. Reynolds, Boston, Mass. Dental engine.....	381,753	Apr. 24	2213	559	43	466
Hood, John, and S. H. Reynolds, Boston, Mass. Dental engine.....	382,200	Aug. 21	1559	{ 414 415 }	44	886
Hooley, Wilbert, Toronto, and J. W. Bailey, Cartwright, Ontario, Canada. Machine for destroying potato-bugs.....	383,294	May 22	2416	558	43	947
Hooker, Henry H., Wilmet, Kans. Cultivator.....	390,783	Oct. 9	816	217	45	168
Hooker, John J., Tideswell, Stockport, county of Derby, H. Lescher and R. G. Schwarz, London, England. Apparatus for stopping and starting vehicles.....	388,973	Sept. 4	248	66	41	1119
Hooker, William C., Abingdon, Ill. Animal-trap.....	390,021	Sept. 25	1850	490	44	1449
Hooker, William T., London, England. Boot or shoe.....	388,134	Aug. 21	1457	390	44	867
Hookham, George, assignor of one-half to W. H. Tonks, Birmingham, county of Warwick, England. Line or cord for suspending pictures, &c.....	387,975	Aug. 14	1179	{ 320 321 }	44	896
Hoop, Friedrich W. J., and J. Isaac, Houston, Tex. Baling-press.....	387,516	Aug. 7	470	124	41	664
Hooper, Irvin G. (See Heller and Hooper.)						
Hooper, Irvin G., Newark, N. J. Japanning-machine.....	385,933	July 10	897	{ 238 239 }	44	184
Hooper, Josephus, Louisville, Ky., and T. Clark, New Albany, Ind. Converting cast-iron into steel.....	390,969	Oct. 9	1094	.....	45	219
Hooper, William A., and R. F. Hamblen, Maryville, Mo. Hay-derrick.....	383,358	May 22	2201	581	43	962
Hoopes, Clement R., Philadelphia, Pa. Oil-burner.....	379,468	Mar. 13	878	237	42	1139
Hoops, Herman W., New York, N. Y. Machine for making candy.....	379,871	Mar. 20	1517	399	42	1270
Hoosier Drill Company. (See Summers, Edgar W., assignor.)						
Hooton, John A., and G. L. Wiard, Clifton, Nebr. Wire-fence-building apparatus.....	388,974	Sept. 4	249	66	44	1119
Hooven, Clement W., Winchester, Ind. Head-rest.....	394,271	Dec. 11	797	211	45	1233
Hooven, Owens & Rentschler Company. (See Helvey, George H., assignor.)						
Hoover, Daniel R. (See Blackwelder, Manly L., assignor.)						
Hoover, Ellis A., West Milton, Ohio. Feed-regulator.....	384,443	June 12	898	231	43	1300
Hoover, Ellis A., West Milton, assignor of one-half to J. B. Fouts, Troy, Ohio. Automatic grain-weigher.....	389,513	Sept. 11	1074	285	44	1283
Hoover & Gamble. (See Aldrich, Wales, assignor.)						
Hoover & Gamble. (See Brown, Robert, assignor.)						
Hoover, Isaac W., Avery, Ohio. Combined potato digger and separator.....	382,363	May 8	733	185	43	658
Hoover, Louis H., St. Louis, Mo. Tack-hammer.....	392,515	Nov. 6	497	125	45	629
Hoover, Myra J. (See Cook, George W., assignor.)						
Hope, John, Jr., assignor of one-half to W. V. Daboll, Providence, R. I. Street-railway switch-frog.....	376,479	Jan. 17	1067	279	42	220
Hopedale Machine Company. (See Bancroft, William, assignor.)						
Hopedale Machine Company. (See Rhodes, Alonzo E., assignor.)						
Hopkin, George E., assignor to A. Cox Store Company, Philadelphia, Pa. Boiler.....	387,076	July 31	2586	681	44	534
Hopkins, Cabel B., Louisville, Ky. Cash indicator and register.....	384,691	June 19	1275	{ 335 336 337 }	43	1379
Hopkins, Cabel B., Louisville, Ky. Cash registering and indicating apparatus.....	384,692	June 19	1283	{ 336 337 338 }	43	1381
Hopkins, Cabel B., Louisville, Ky. Drink-strainer.....	384,977	June 26	1691	410	43	1468
Hopkins, Cabel B., Louisville, Ky. Cash indicator, register, and recorder.....	385,265	June 26	2141	{ 546 547 }	43	1560
Hopkins, Edward A., assignor of one-half to H. M. Reid, Minneapolis, Minn. Ruling-pan.....	391,849	Oct. 30	2346	637	45	490
Hopkins, Francis A., Washington, D. C. Drawing-board.....	389,472	Sept. 11	1017	272	44	1273
Hopkins, George M., Brooklyn, assignor to Economic Motor Company, New York, N. Y. Engine-governor.....	379,872	Mar. 20	1518	399	42	1270
Hopkins, George M., Brooklyn, assignor to Economic Motor Company, New York, N. Y. Steam-generator.....	388,873	Sept. 4	103	27	44	1092
Hopkins, Henry S., St. Louis, Mo. Truss-bridge connection.....	393,433	Nov. 27	1832	{ 482 483 }	45	974
Hopkins, I. Newton, Brooklyn, N. Y. Gas-engine.....	379,397	Mar. 13	772	208	42	1118
Hopkins, Ira G. W., and H. H. Cummings, Malden, Mass. Buckle or clasp.....	376,055	Jan. 3	461	124	42	93
Hopkins, Jason R., Washington, D. C. Button-hole cutter.....	384,163	June 5	480	132	43	1214
Hopkins, John R., Norcross, Ga. Seed-cotton cleaner.....	391,744	Oct. 23	2175	{ 587 588 }	45	447
Hopkins, Lewis C., Brooklyn, assignor to Jaeger's Sanitary Woollen System Company, New York, N. Y. Seamless undergarment.....	378,053	Feb. 14	1063	278	42	714
Hopkins, Randolph C., H. Coventry, P. Neymann, and J. C. Beardslee, assignors to Sherwin Williams Company, Cleveland, Ohio. Paint-press.....	379,464	Mar. 13	874	236	42	1138
Hopkins, Samuel E., Pleasant, assignor of one-half to B. F. and J. E. Moore, Green Camp, Ohio. Shaft-holder.....	394,116	Dec. 4	552	148	45	1176
Hopkins, William E. (See Dayan, Squire C., assignor.)						
Hopkins, William F., Carbonate, Dak. Ter. Mechanical toy.....	387,303	Aug. 7	161	43	44	602
Hopkins, William W., assignor of one-half to I. McGowan, St. Louis, Mo. Electric railway.....	379,069	Mar. 6	300	88, 89	42	1023
Hopkins, William W., assignor of one-half to I. McGowan, St. Louis, Mo. Electric railway.....	379,070	Mar. 6	302	89	42	1023
Hopkinson, Edward. (See Mather and Hopkinson.)						
Hopkinson, John. (See Mather and Hopkinson.)						
Hopper, Harrison, et al. (See Geddes, James W., assignor.)						
Hopper, Henry G. (See Odell and Hopper.)						
Hopper, Henry S., Detroit, Mich. Car-brake.....	393,561	Nov. 27	2034	533	45	1016
Hopper, Joseph B., Newark, N. J. Painter's hook.....	383,883	June 5	50	16	43	1130
Hopson, Franklin O., assignor of two-thirds to J. F. Strickland and W. C. Jones, Waxahatchie, Tex. Throat-latch fastener.....	381,215	Apr. 17	1433	385	43	294
Hopson, Isaac B., et al. (See Harden, William H., assignor.)						
Hopson, John, Jr., New London, Conn. Radiator.....	378,093	Feb. 21	1120	293	42	734
Hopson, John, Jr., and W. T., New London, Conn. Boiler.....	395,142	Dec. 25	2199	565	45	1522
Hopson, William T. (See Hopson, John, Jr., and W. T.)						
Hopson, William T., New London, Conn. Boiler.....	394,858	Dec. 18	1745	453	45	1428
Horack, Charles L., Brooklyn, N. Y. Automatic fire-extinguisher.....	384,376	Apr. 17	1619	432	43	332
Hörmann, Rudolph, Hoboken, N. J. Button-forming machine.....	380,722	Apr. 10	628	173	43	134
Horn, Brannen & Forsyth Manufacturing Company. (See Crede, William, assignor.)						
Horn, Peter C., et al. (See Wright, Parvin, assignor.)						
Horn, William H., near Bellefontaine, Ohio. Wheat and corn cultivator.....	385,670	July 3	502	129	44	97

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Hornbaker, Joseph C. (See Barker and Hornbaker.)						
Hornbarger, John G., Emporia, Kans. Car-coupling	386,012	July 10	995	265	44	203
Hornby, James, San Antonio, Tex. Fire-escape	380,284	Mar. 27	2100	561 562 143 144 145	42	1394
Horne, Charles H., Tucson, Ariz. Ter. Constructing railways	387,560	Aug. 7	553	144 145	44	679
Horne, Horace W., and J. Henderson, Haverhill, assignors to J. W. Brooks, trustee, Cambridge, Mass. Heel-nailing machine	389,077	Sept. 4	392	102	44	1148
Horne, John W. (See Henderson, Cavan, assignor.)						
Horne, John W., Boston, Mass. Blank-book	393,506	Nov. 27	1949	510	45	997
Horne, John W., Boston, Mass. Account-book	393,507	Nov. 27	1950	510	45	997
Horne Vacuum Company. (See Horne, William L., assignor.)						
Horne, William E., Decatur, Ill., assignor to R. Schenck, New York, N. Y. Device for raising or lowering windows	377,457	Feb. 7	164	38	42	526
Horne, William L., Meriden, Conn. Explosive motor or engine	387,561	Aug. 7	558	146	44	680
Horne, William L., Meriden, assignor to Horne Vacuum Company, Hartford, Conn. Alcoholic distillation	385,625	July 3	43		44	86
Horne, William L., Meriden, assignor to Horne Vacuum Company, Hartford, Conn. Vacuum-distillation	386,747	July 24	2074	546	44	428
Horne, William L., Meriden, assignor to Horne Vacuum Company, Hartford, Conn. Aging liquors	386,748	July 24	2076	546	44	428
Horne, William L., Meriden, assignor to Horne Vacuum Company, Hartford, Conn. Distilling apparatus	388,278	Aug. 21	1678	449	44	911
Hornish, Harry C., Peoria, Ill. Combined steam cooker and frier	381,784	Apr. 24	2215	580	43	467
Horrocks, William, Ilion, assignor to Wyckoff, Seamans & Benedict, New York, N. Y. Cabinet for type-writers	375,819	Jan. 3	126	37	42	30
Horrocks, William, Ilion, assignor to Wyckoff, Seamans & Benedict, New York, N. Y. Cabinet for type-writers	376,092	Jan. 10	515	138	42	110
Horrocks, William, Ilion, assignor to Wyckoff, Seamans & Benedict, New York, N. Y. Cabinet for type-writers	379,957	Mar. 27	1642	437 438	42	1303
Horry, William S., New York, N. Y., assignor to United States Incandescent Gas Lamp Company. Regenerative gas-burner	392,434	Nov. 6	381	94	45	666
Horsey, Washington L. (See Stevens and Horsey.)						
Horst, Jacob L., Oberlin, Pa. Band-cutter	381,926	May 1	39	11	43	522
Horst, Peter, Sioux City, Iowa. Electro-medical apparatus	382,811	May 15	1395	366	43	786
Horton, Benjamin S., Vermillion, Ohio. Spike-puller	392,920	Nov. 13	1089	252	45	813
Horton, Charles H., Wellington, Ohio. Apparatus for heating cars	391,413	Oct. 23	1729	461	45	355
Horton, Emmet, Dundee, N. Y. Wagon-brake	389,303	Sept. 11	778	197	44	1227
Horton, Ervin R., Medford, Mass. Cuff-holder	378,094	Feb. 21	1122	293	42	734
Horton, Everett, Bristol, Conn. Machine for making metal screws	379,577	Mar. 20	1053	280 281	42	1180
Horton, Everett, assignor to Horton Manufacturing Company, Bristol, Conn. Fishing-rod	386,320	July 17	1455	385	44	297
Horton, Everett, assignor to Horton Manufacturing Company, Bristol, Conn. Fishing-rod	386,321	July 17	1456	385	41	298
Horton, Everett, Bristol, Conn., assignor of one-fourth to C. F. Pope, Brooklyn, N. Y. Whip	392,122	Oct. 30	2763	750	45	573
Horton, James A., Reading, Mass. Steam-engine governor	377,028	Jan. 31	1894	498	42	392
Horton, John C., assignor of one-half to W. W. Todd, Elkmont, Ala. Combined plow and harrow	379,164	Mar. 6	430	121 122	42	1048
Horton Manufacturing Company. (See Horton, Everett, assignor.)						
Horton Manufacturing Company. (See Treadway, Charles S., assignor.)						
Horton, William G. (See Headley, Elwood, assignor.)						
Horton, William G. (See Headley and Horton.)						
Hose, Wallace. (See Curtin, Henry, assignor.)						
Hosea, Lewis M., assignor to Lane & Bodley Company, Cincinnati, Ohio. Friction-brake for cable-railway cars	379,015	Mar. 6	225	60	42	1009
Hoskin, John, and J. K. Caldwell, Philadelphia, and H. D. Hughes, Radnor, Pa. Kiln or furnace for burning garbage	391,614	Oct. 23	1999	540 541 148 149	45	411
Hoskins, Alvis J., Edwardsville, Ill. Farm-gate	394,117	Dec. 4	553	148 149	45	1177
Hoskins, George W., and J. Ray, Smithland, Iowa. Cultivator-knife	393,761	Dec. 4	41	13	45	1080
Hoskins, Silas E., et al. (See Waterbury, Emery D., assignor.)						
Hosley, George, Buffalo, N. Y. Checkrein attachment	376,306	Jan. 10	814	215	42	165
Hosmer, Charles M. (See Carey, George D., assignor.)						
Hosner, Riley J., Romeo, Mich. Door-hanger	386,885	July 31	2311	608	44	480
Hotchkiss, Frederick L., and P. A. Raby, Brooklyn, N. Y. Automatic fire-extinguisher for stoves and heaters	382,812	May 15	1396	366	43	797
Hotchkiss, Arthur E., Cheshire, Conn. Clock-movement. (Reissue)	10,920	Apr. 10	1220	327	43	246
Hotchkiss, Benjamin B., deceased, Paris, France; M. H. Hotchkiss and W. C. Gulliver, administrators, and assignors to Hotchkiss Ordnance Company, London, England. Breach-loading ordnance	381,697	Apr. 24	2094	548	43	444
Hotchkiss, Elisha, Cincinnati, Ohio. Weather-boarding gage	378,548	Feb. 28	1893	476	42	872
Hotchkiss, George R., Chicago, Ill., and G. F. Smith, Michigan City, Ind. Refrigerator	382,982	May 15	1627	425 426	43	842
Hotchkiss, Henry I., South Ryegate, Vt. Mop-wringer	377,157	Jan. 31	2074	545	42	428
Hotchkiss, Joseph, assignor of one-half to Coulter & McKenzie Machine Company, Bridgeport, Conn. Fire-escape	394,272	Dec. 11	798	212	45	1233
Hotchkiss, Maria H., et al., administrators. (See Hotchkiss, Benjamin B.)						
Hotchkiss Ordnance Company. (See Elwell, Howard P., assignor.)						
Hotchkiss Ordnance Company. (See Favarger, Theodor, assignor.)						
Hotchkiss Ordnance Company. (See Hotchkiss, Benjamin B., assignor.)						
Hotchkiss Ordnance Company. (See Koerner, Alfred C., assignor.)						
Hotchkiss, Zeroy P., assignor of one-fourth to C. J. Ward, Oak Park, Ill. Telegraphy	381,246	Apr. 17	1434	385 312 313 314	43	294
Hotchkiss, Zeroy P., Oak Park, Ill., assignor of one-half to W. W. Dudley, Washington, D. C., and C. J. Ward, Oak Park, Ill. Automatic telegraph-transmitter	386,129	July 17	1172	312 313 314	44	244
Hothersall, John, Manchester, county of Lancaster, England. Catamenial sack	384,525	June 12	1028	268	43	1324
Höttges, Emil. (See Heidmann, Höttges, and Egen.)						
Holz, Christoph, and M. Conrad, Chicago, Ill. Wagon-axle	388,975	Sept. 4	251	67	44	1120
Houchens, John T., Baltimore, Md. Stove for railway-cars	386,825	July 31	2229	586	44	465
Honck, Austin S. and E., Bedford, Iowa. Corn-planter	381,073	Apr. 10	1175	312 313	43	237
Honck, Edwin. (See Honck, Austin S. and E.)						
Honck, Thomas, Black Creek, Ohio. Fence	382,233	May 1	518	133	43	609

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Hond, Emile, Grafton, Mass. Boot-crimping frame	377,898	Feb. 14	845	216	42	671
Hough, David L., <i>et al.</i> (See Hardy, John J., assignor.)						
Hough, Franklin H. (See Risdon, John R., assignor.)						
Hough, John D. (See Wilson, George T., assignor.)						
Houghtaling, William, Bridgeport, Conn., assignor to E. S. T. Kennedy, New York, N. Y. Perforated plate for drying steam	329,078	Sept. 4	394	103	44	1148
Houghton, Charles E., assignor to H. R. Johnson and I. M. Houghton, Northumberland, Pa. Nail-plate feeder	380,572	Apr. 3	401	115	43	82
Houghton, Charles L., New Haven, Conn., and W. I. Fox, assignors to themselves and G. W. Weymouth, Fitchburg, Mass. Whistle-recorder for locomotive-engines	376,525	Jan. 17	1135	297	42	232
Houghton, Ida M., <i>et al.</i> (See Houghton, Charles E., assignor.)						
Houghton, John Q. A., Baltimore, Md. Lasting-machine	385,557	July 3	334	86 87 88	44	67
Houghton, Thomas J., Lancaster, Pa. Pole-tip	382,529	May 8	987	248	43	706
House, Allen, Paragould, Ark. Guide for saws	379,165	Mar. 6	431	122	42	1048
House, Henry A. and H. A., Jr., Bridgeport, Conn. Relief-valve for door-checks	384,907	June 19	1591	414	43	1439
House, Henry A. and H. A., Jr., assignors of one-third to E. E. Graves, Bridgeport, Conn. Sand-blast apparatus	391,971	Oct. 30	2523	682 683	45	526
House, Herbert E., Neenah, Wis. Velocipede	382,043	Aug. 21	1289	349	44	836
House Improved Telephone Company. (See House, Warren D., assignor.)						
House, John. (See Beck, Adam H., assignor.)						
House, John H. B. (See Pickering, Charles H., assignor.)						
House, Warren D., Kansas City, Mo. Elevator-guard	391,615	Oct. 23	2002	541	45	412
House, Warren D., Kansas City, Mo., assignor to House Improved Telephone Company, Philadelphia, Pa. Telephone	380,437	Apr. 3	192	52, 53	43	39
House, Warren D., Kansas City, Mo., assignor to House Improved Telephone Company, Philadelphia, Pa. Telephone	380,438	Apr. 3	193	53	43	40
Housel, Elmer, Summit, Ohio. Car-axle oiler	380,436	Apr. 3	190	52	43	39
Housenan, Thomas R., and C. B. M. Sprowles, Philadelphia, Pa., assignors to United States Food Fertilizer and Manufacturing Company, of Pennsylvania. Apparatus for desiccating materials	386,781	July 24	2125	558 559	44	437
Houser, Charles, East St. Louis, Ill. Chicken-brooder	379,398	Mar. 13	774	209	42	1118
Houser, Frank, and W. H. Clarkson, assignors to J. Smith Woolen Machinery Company, Philadelphia, Pa. Device for clothing grooved cylinders with toothed strips of metal	381,473	Apr. 17	1767	472	43	300
Houser, Franklin C. (See Slappey, William A., assignor.)						
Houston, George W. (See Mason, Mulkey, and Houston.)						
Houston, George W., Savoy, assignor of one-half to S. L. Easley, Fort Worth, Tex. Spring-motor for fans	390,369	Oct. 2	241	65	45	51
Houston, Samuel C. (See Jacobs and Houston.)						
Houston, William J. (See Petty and Houston.)						
Hontz, Edward, assignor of one-half to J. F. Williams, Blunt, Dak. Ter. Car-coupling	384,575	June 12	1098	289	43	1337
Houze, Luc. (See Huidekoper and Houze.)						
Hove, Andreas G., Hønefos, Norway. Lamp-extinguisher	390,970	Oct. 9	1095	289	45	219
Hovey, Franklin S., <i>et al.</i> (See Blackburn, Frederick, assignor.)						
Hovey, William H., Brazil, Ind. Check-plate for draw-bars	390,231	Oct. 2	55	15	45	15
How, William F. (See Goodwin and How.)						
How, Woodbury S., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Cervix-clamp	382,039	May 1	248	64	43	559
How, Woodbury S., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Tooth-regulator	385,117	June 26	1919	490	43	1515
Howard, Abel T. (See Clarke, George R., assignor.)						
Howard, Alfred H., Boston, Mass. Exercising apparatus	376,741	Jan. 24	1468	388	42	304
Howard, Benjamin, Sheep Ranch, Cal. Chalk-line holder	384,444	June 12	899	234	43	1300
Howard, Blanche W., Bangor, Me. Music-rack for pianos	393,562	Nov. 27	2636	533	45	1047
Howard, Blanche W., Bangor, Me. Bathing-shoe	393,563	Nov. 27	2637	533	45	1017
Howard, Charles D., Syracuse, N. Y. Stove or furnace grate	387,163	July 31	2722	713	44	557
Howard, David, and S. W. Ward, Dublin, Ind. Fence	390,971	Oct. 9	1097	289	45	220
Howard, Edward J., <i>et al.</i> (See Haynes, Cornelius E., assignor.)						
Howard, George C., Wallingford, Pa. Rope-carrying device	386,826	July 31	2230	586	44	465
Howard, George H. (See Hyde, John, assignor.)						
Howard, Henry G. M., Kalamazoo, Mich. Two-wheeled vehicle	381,927	May 1	39	11	43	523
Howard, Hilton. (See Howard, Wright, assignor.)						
Howard, Hilton, Fitchburg, Mass. Machinist's measuring-tool	386,469	July 24	1685	444	44	356
Howard, Hiram, <i>et al.</i> (See Whiting, William F., assignor.)						
Howard, James. (See Snow and Howard.)						
Howard, James, New York, N. Y. Load-indicator for vehicles	388,874	Sept. 4	104	27	44	1092
Howard, James S., Springfield, Mass., and F. M. Hill, Brooklyn, N. Y., assignors, by mesne assignments, to Aluminium Product Company, of New York. Producing aluminum	378,136	Feb. 21	1193		42	746
Howard, John E., Altoona, Pa. Centering apparatus	391,533	Oct. 23	1893	508	45	389
Howard, John W., <i>et al.</i> (See Solano, Renaldo, assignor.)						
Howard, Mitchell C., Columbus, Ohio. Whisk-broom	391,796	Oct. 30	2269	614	45	476
Howard & Morse <i>et al.</i> (See Solano, Renaldo, assignor.)						
Howard, Reese, Salt Lake City, Utah Ter. Automatic gas-extinguishing apparatus	392,921	Nov. 13	1090	283	45	813
Howard, Robert W., Chelsea, assignor of one-half to E. F. Reed, Everett, Mass. Elastic band	381,879	Apr. 24	2576	617	43	496
Howard, Stephen C., <i>et al.</i> (See Whiting, William F., assignor.)						
Howard, William A., assignor of one-half to C. W. Adamson, Petaluma, Cal. Power mechanism	383,295	May 22	2118	559	43	947
Howard, William H., Houston, Tex. Fire-escape	388,279	Aug. 21	1680	449	44	912
Howard, Willie J., Mariposa, Cal. Trace attachment	382,002	May 1	177	46	43	546
Howard, Wright, assignor to H. Howard, Fitchburg, Mass. Water-motor	392,730	Nov. 13	818	208	45	758
Howat, Andrew, Manchester, county of Lancaster, England. Miner's safety-lamp	382,161	May 1	416	109	43	589
Howden, William N., Lawrence, Kans., assignor of one-third to J. McNaughton. Animal-releasing device	385,671	July 3	503	129	44	97
Howe, Alexander C., Idana, Kans. Butter-tub	380,487	Apr. 3	264	73	43	51
Howe, Charles F., Greenleaf, Kans. Platen printing-machine	376,956	Jan. 24	1789	470 471	42	361
Howe, Charles P., Chicago, Ill. Farm-gate	385,626	July 3	444	114	44	86
Howe, Edward P., Northborough, Mass. Machine for rubbing and polishing buttons	394,185	Dec. 11	659	177	45	1206
Howe, Edwin A., Springfield, Mass. Tool for turning and polishing metal	386,013	July 10	996	265	44	304
Howe, Edwin A., Springfield, Mass. Chuck	394,364	Dec. 11	943	248	45	1261
Howe, Eugene L., Cleveland, Ohio. Snap-hook	382,611	May 8	1116	286	43	732

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Howe, George H., Hoosick Falls, N. Y. Link-making machine.	395,143	Dec. 25	2301	{ 565 566 }	45	523
Howe, George H., Hoosick Falls, assignor to J. A. Eddy, Troy, N. Y. Crank-bending machine.	382,426	May 8	219	210	43	675
Howe, George H., assignor to W. A. Wood Mowing and Reaping Machine Company, Hoosick Falls, N. Y. Reaping-machine.	387,684	Aug. 14	742	{ 190 191 }	41	721
Howe, Gertrude N., New York, N. Y. Detachable fire-pan for stoves.	388,976	Sept. 4	252	67	44	1120
Howe, Henry, Moss Springs, Kans. Fender.	377,074	Jan. 31	1961	515	42	405
Howe, Henry L., Canandaigua, N. Y. Automatic flushing-tank.	384,978	June 26	1692	440	43	1468
Howe, James H., Paintsville, Ky. Bee-hive.	384,627	June 19	1181	311	43	1361
Howe, John P., Hartington, Nebr. Combined cultivator and harrow.	390,126	Sept. 25	2016	{ 537 538 }	44	1483
Howe, Orion P., Streator, Ill. Sweat-pad.	382,702	May 15	1252	327	43	768
Howe, Orion P., Streator, Ill. Harness-rosette.	388,044	Aug. 21	1291	349	44	836
Howe, Thomas B., Scranton, Pa. Automatic bottle-fastener.	394,490	Dec. 11	1111	289	45	1292
Howe, Thomas B., assignor of two-thirds to G. A. Clearwater and M. A. Goodwin, Scranton, Pa. Jar-fastener.	378,685	Feb. 28	2006	530	42	911
Howe, Thomas B., assignor of two-thirds to G. A. Clearwater and M. A. Goodwin, Scranton, Pa. Jar-fastener.	387,304	Aug. 7	161	43	44	602
Howe, Thomas B., assignor of two-thirds to M. A. Goodwin and G. A. Clearwater, Scranton, Pa. Jar-fastener.	387,683	Aug. 14	741	190	44	721
Howe, Thomas B., assignor of one-half to E. De Witt, Scranton, Pa. Car-heating apparatus.	386,322	July 17	1457	385	44	298
Howe, Warren B., Chicago, Ill. Paper box.	384,038	June 5	290	81, 82	43	1176
Howe, Willis C. (See Perkins, Eligia, assignor.)						
Howell, Albert L., Mohawk, N. Y. Flat-iron heater.	390,478	Oct. 2	396	101	45	82
Howell, Frederick W., assignor to M. T. Howell, Buffalo, N. Y. Cockle-separator.	393,829	Dec. 4	137	38	45	1099
Howell, Israel G., Hopewell, N. J. Horseshoe.	380,800	Apr. 10	749	205	43	157
Howell, Israel G., Hopewell, N. J. Vibrating propeller.	386,586	July 24	1852	489	44	386
Howell, Israel G., Hopewell, N. J. Railway-tie.	390,370	Oct. 2	242	65	45	51
Howell, John A., Washington, D. C. Artificial leech.	391,414	Oct. 23	1731	462	45	355
Howell, John M., Jr., Donaldsonville, La. Fertilizer-distributor.	393,907	Dec. 4	259	70	45	1121
Howell, John W., New Brunswick, N. J. System of electrical distribution.	377,488	Feb. 7	210	50	42	535
Howell, M. T. (See Howell, Frederick W., assignor.)						
Howell, Robert R., Minneapolis, Minn. Grain-tally.	377,158	Jan. 31	2075	{ 545 546 }	42	428
Howell, Valentine, Geneva, Ill. Cigar-tip cutter.	380,324	Apr. 3	26	7	43	7
Howells, John R., Plymouth, assignor of one-half to R. M. Howells, Wilkes-Barre, Pa. Mining-drill.	384,165	June 5	481	{ 132 133 }	43	1214
Howells, Richard M. (See Howells, John R., assignor.)						
Howerton, Robert W., Dearborn, Mo. Carpet-fastener.	387,882	Aug. 14	1025	276	44	776
Hoves, Albert P., assignor of two-thirds to E. Converse and A. T. Matthews, Worcester, Mass. Faucet.	388,362	Aug. 21	1817	483	44	936
Hoves, Alvin C., Middleborough, Mass. Car-coupling.	393,370	Nov. 27	1746	462	45	957
Hoves, Isaiah C., East Orange, N. J. Nut for screw-bolts.	392,731	Nov. 13	820	208	45	759
Howgate, Joseph W., Wilmington, Del. Horse-detacher.	395,144	Dec. 25	2205	{ 566 567 }	45	1523
Howland, Charles S., Campville, Conn. Rubbing-down device for mounting photographs.	375,820	Jan. 3	128	37	42	30
Howland, Ephraim, Pontiac, Mich. Combined thrasher and steam-engine.	385,627	July 3	445	115	44	87
Howland, George, Sherwood, N. Y. Heel-weight.	392,154	Oct. 30	7812	763	45	582
Howland, George B., Chicago, Ill., and F. W. Allen, Chanute, Kans. Thill-coupling.	383,953	June 5	164	48	43	1152
Howland, Samuel H., New York, N. Y. Machine for turning the channel-lips of insoles.	388,280	Aug. 21	1681	449	44	912
Howland, Stephen H. (See Gibbins, James, assignor.)						
Howlet, Nelson R., et al. (See Pruim, Hiram P., assignor.)						
Howse, Henry L., San Francisco, Cal. Hydrocarbon-burner.	378,590	Feb. 28	1866	{ 492 493 }	42	885
Howson, Richard, and E. Crowe, Middlesbrough-on-Tees, county of York, England. Coin-released spirometer.	389,748	Sept. 18	1447	379	44	1361
Hoy, John S., Albany, N. Y. Oil-can.	378,886	Mar. 6	44	12	42	975
Hoyle, William J., deceased; W. D. Baldwin, Washington, D. C., administrator. Carriage for heavy ordnance for land defenses.	381,979	May 1	130	31	43	538
Hoyle, William J., deceased; W. D. Baldwin, Washington, D. C., administrator. Mounting for heavy ordnance for land defenses.	381,980	May 1	132	31, 32	43	539
Hoyt, Andrew J., assignor of one-half to F. Hoyt, Philadelphia, Pa. Electric push-button.	394,925	Dec. 18	1865	482	45	1450
Hoyt, Arthur S., Hoboken, N. J. Egg-package.	393,564	Nov. 27	2038	534	45	1017
Hoyt, Charles F., Sioux City, Iowa. Pump-valve.	383,811	May 29	2904	766	43	1104
Hoyt, Charles H., New York, N. Y. Pavement.	383,528	May 29	2478	654	43	1019
Hoyt, Eugene A., Madison, Wis. Cultivator.	380,285	Mar. 27	2102	562	42	1395
Hoyt, Franklin. (See Hoyt, Andrew J., assignor.)						
Hoyt, Fred J., Chicago, Ill. Sash-fastener.	395,274	Dec. 25	2413	618	45	1561
Hoyt, Fred J., assignor to Hoyt Railroad Track Crossing Company. Rotary track-crossing.	388,135	Aug. 21	1457	391	44	867
Hoyt, Gabriel. (See Walker, Enos L., assignor.)						
Hoyt, James P., Newtown, Conn. Rubber brush.	376,385	Jan. 10	927	243	42	186
Hoyt, John C., et al. (See Hallowell, Albert, assignor.)						
Hoyt, Lewis S., Boston, Mass. Molded bridle-winker.	376,742	Jan. 24	1469	388	42	305
Hoyt, Lewis S., Boston, Mass. Bottle-stopper.	383,812	May 29	2905	767	43	1105
Hoyt, Lewis S., Boston, Mass., assignor to Faucet Bottle Company, Nashua, N. H. Faucet bottle-stopper.	378,366	Feb. 21	1537	402	42	811
Hoyt, Lucius H., Danbury, Conn. Machine for shaping bat-brims.	388,492	Aug. 28	1992	{ 536 537 }	44	977
Hoyt, Lucius P., Aurora, Ill. Planing-machine.	384,445	June 12	899	235	43	1301
Hoyt, Lucius P., Aurora, Ill. Expansion-gearing for planing-machines.	387,417	Aug. 7	318	82	44	634
Hoyt, Lucius P., Aurora, Ill. Planing-machine.	391,616	Oct. 23	2003	{ 541 542 }	45	412
Hoyt, Orlando, Ovando, Mont. Ter. Hay unloader and stacker.	378,200	Feb. 21	1282	339	42	764
Hoyt Railroad Track Crossing Company. (See Hoyt, Fred J., assignor.)						
Hoyt, Rutland & Wagner. (See Rogers, John R., assignor.)						
Hoyt, Sarah M., Chicago, Ill. Paving-block.	394,770	Dec. 18	1595	418	45	1401
Hromas, Charles, and F. Mach, David City, Nebr. Transom-lifter.	392,560	Nov. 6	558	141	45	702
Hub Carbon Company. (See Wilder, Charles H., assignor.)						
Hubbard, Charles M., Columbus, Ohio. Automatic axle-washer.	387,883	Aug. 14	1026	270	44	776
Hubbard, Eber, assignor to C. S. Burton, trustee, Chicago, Ill. Manufacturing paper pails.	389,964	Sept. 25	1767	469	44	1433

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'g.	Vol.	Page.
Hubbard, Ezra S., Belmont, Iowa. Sash-fastener.....	390,022	Sept. 25	1852	491	44	1449
Hubbard, Franklin, <i>et al.</i> (See Munz, Theodore C., assignor.)						
Hubbard, Frederick J., assignor to Adams & Westlake Manufacturing Company, Chicago, Ill. Device for regulating the flames of vapor-stoves.....	377,560	Feb. 7	316	81	42	556
Hubbard, Frederick J., assignor to Adams & Westlake Manufacturing Company, Chicago, Ill. Vapor-stove.....	387,786	Aug. 14	883	228	44	749
Hubbard, George W., Brooklyn, N. Y. Reservoir or tank apparatus for water-closets.....	378,367	Feb. 21	1538	402	42	811
Hubbard, George W., Brooklyn, N. Y. Reservoir or tank apparatus for water-closets.....	379,310	Mar. 13	651	177	42	1094
Hubbard, George W., Windsor, Vt. Concentric-piston steam-engine.....	386,922	July 31	2371	623	44	492
Hubbard, Horace L., Centre Lisle, N. Y. Hoof-pad.....	378,887	Mar. 6	45	12	42	975
Hubbard, Moses G., Philadelphia, Pa. Car-truck.....	384,317	June 12	711	189	43	1266
Hubbard, Moses G., Philadelphia, Pa. Journal-bearing for car-trucks.....	389,965	Sept. 25	1769	{ 469 470 }	44	1433
Hubbard, S. H., <i>et al.</i> (See Moore, James L., assignor.)						
Hubbard, S. H., <i>et al.</i> , trustees. (See Doolittle, George, assignor.)						
Hubbard, William H., Indianapolis, Ind. Fastening for envelopes.....	381,642	May 29	2634	697	43	1053
Hubbell, Algernon S., Norwich, Conn. Umbrella.....	383,128	May 22	1875	490	43	901
Hubbell, Charles E. (See Sutherland, John B., assignor.)						
Hubbell, Charles H., assignor to Sterling Company, Birmingham, Conn. Organ-case.....	387,884	Aug. 14	1027	270	44	776
Hubbell, George L. (See Ingraham and Hubbell.)						
Hubbell, Julian B., Washington, D. C. Trunk.....	379,514	Mar. 13	954	257	42	1153
Huber, Anthony, New York, N. Y. Spring bed-bottom.....	387,787	Aug. 14	885	228	44	749
Huber, Berthold, and W. K. Hodgman, assignors to Huber Printing Press Company, Taunton, Mass. Set-off mechanism for printing-machines.....	393,471	Nov. 27	1905	498	45	987
Huber, Edward. (See Richards and Huber.)						
Huber, Edward, Marion, Ohio. Car-coupling.....	376,093	Jan. 10	517	138	42	111
Huber, Edward, Marion, Ohio. Steam-engine governor.....	394,553	Dec. 18	1264	331	45	1334
Huber, George W., Philadelphia, Pa. Brace for screw-drivers, bits, &c.....	385,414	July 3	123	33	44	26
Huber Printing Press Company. (See Huber and Hodgman, assignors.)						
Hubert, H. Gengembre, New York, N. Y. Mold for casting saw-teeth.....	382,088	May 1	320	84	43	572
Hubert, Philip G., New York, N. Y. Water-closet.....	391,972	Oct. 30	2524	683	45	526
Hubert, Philip G., New York, N. Y. Water-closet.....	391,973	Oct. 30	2526	683	45	526
Hubert, Philip G., New York, N. Y. Water-closet.....	393,109	Nov. 20	1362	355	45	874
Hubert, Philip G., New York, N. Y. Time-valve.....	393,110	Nov. 20	1361	356	45	873
Hubert, Philip G., New York, N. Y. Water-closet.....	393,647	Nov. 27	2167	566	45	1042
Huckans, John, assignor of one-half to E. E. Bogardus, Brooklyn, N. Y. Open-front heater.....	388,562	Aug. 28	2089	562	44	995
Hucke, John H., Brooklyn, N. Y. Wagon-curtain.....	388,563	Aug. 28	2090	562	44	995
Hudce, John F., Cleveland, Ohio. Railway rail-tie and rail-clamp.....	379,222	Mar. 13	525	147	42	1071
Hudler, Franklin M., Trenton, Mo. Spark-arrester.....	356,470	July 24	1687	444	44	356
Hudson, C. C., <i>et al.</i> (See Pitts, Andrew J. and G. W., assignors.)						
Hudson, C. Columbus, Elmira, N. Y. Improving the tone of violins.....	389,813	Sept. 18	1533	406	44	1380
Hudson, Charles E., Leominster, Mass. Slicing and coring knife for apple-parers.....	377,106	Jan. 31	2015	528	42	414
Hudson, Christopher C., Elmira, N. Y. Upright-piano case.....	390,169	Sept. 25	2081	555	44	1497
Hudson, J. G., <i>et al.</i> (See Pitts, Andrew J. and G. W., assignors.)						
Hudson, John G. (See Robertson and Hudson.)						
Huefner, Henry A., Palmer, Ill. Grinding-rolls for flour-mills.....	386,014	July 10	999	266	44	204
Huebn, Conrad, assignor of one-half to R. Y. McConnell, Rochester, N. Y. Thill-coupling.....	377,716	Feb. 7	547	140	42	598
Huesgen, John A., <i>et al.</i> (See Bunch, William, assignor.)						
Huey, William, Baltimore, Md., and E. W. Bailly, Philadelphia, Pa. Egg-carrier.....	381,928	June 1	40	11	43	523
Huff, Charley F., Golden, and W. B. Huff, Basco, Ill. Ticket-printing machine.....	383,954	May 5	164	49	43	1152
Huff, Frederick P., Booth Bay, Me. Guard for pie-plates and similar pans.....	360,116	Mar. 27	1878	500	42	1349
Huff, Jonathan G. and L. H., East Bend, N. C. Spring-vehicle.....	376,957	Jan. 24	1792	471	42	365
Huff, Jonathan G. and L. H., East Bend, N. C. Fifth-wheel.....	388,201	Aug. 21	1561	415	44	886
Huff, Lemuel H. (See Huff, Jonathan G. and L. H.)						
Huff, Robert E., Eureka, Kans. Apparatus for making extract of tea.....	389,079	Sept. 4	395	103	44	1148
Huff, William B. (See Huff, Charley F. and W. B.)						
Huffelmann, Wilhelm, assignor to Gabriel, Bergenthal & Co., Germaniabütte, Prussia, Germany. Apparatus for casting metal ingots.....	390,371	Oct. 2	243	66	45	51
Huffer, Anna, Jeffersonville, Ill. Window-shade.....	383,053	May 15	1759	455	43	868
Huffman, Orlando, assignor of one-half to H. W. Hewitt, Friend, Nebr. Barbed fence.....	380,573	Apr. 3	405	116	43	82
Huffman, Orlando, assignor of one-half to T. E. Browne, Friend, Nebr. Animal-trap.....	380,439	Apr. 3	195	54	43	40
Huffman, Orlando, assignor of one-half to T. E. Browne, Friend, Nebr. Animal-trap.....	395,054	Dec. 25	2055	530	45	1497
Hugentobler, Emil M. (See Herron and Hugentobler.)						
Huggins, Ambrose L. (See Gillingham, Henry R., assignor.)						
Huggins, Robert T., Darlington, S. C. Cotton chopper and cultivator.....	378,960	Mar. 6	138	40	42	993
Hughes, Alonzo, Orlando, Fla. Glass-cutting table.....	382,234	May 1	519	131	43	609
Hughes, Evan D., Wheeling, W. Va. Barrel-heater.....	388,045	Aug. 21	1291	{ 319 350 }	44	836
Hughes, Garrettson A., Ashland, Ohio. Drag-sawing machine.....	392,561	Nov. 6	559	111	45	702
Hughes, George, Liverpool, county of Lancaster, England. Life-boat deck-seat.....	388,875	Sept. 4	105	24	44	1092
Hughes, George, Washington, D. C. Grinding and mixing mill.....	394,771	Dec. 18	1596	418	45	1401
Hughes, George H., Utica, N. Y. Water-closet.....	393,070	Nov. 20	1310	341	45	863
Hughes, George M., Anburndale, Ohio. Vehicle-wheel.....	378,961	Mar. 6	139	40	42	993
Hughes, Henry A., Rio Grande, N. J. Diffusion apparatus for the extraction of sugar from sorghum.....	395,145	Dec. 25	2206	567	45	1524
Hughes, Henry D. (See Hoskin, Caldwell, and Hughes.)						
Hughes, Henry M., Eldon, Iowa. Reach-bar for vehicles.....	388,363	Aug. 21	1820	483	41	936
Hughes, James, assignor of one-half to C. H. De Lamater, New York, N. Y. Separating grease from water.....	386,402	July 17	1580	416	44	326
Hughes, James M., Ashland, and J. D. Williams, Denton, Ky. Dumping-car.....	378,368	Feb. 21	1540	{ 402 403 }	42	812
Hughes, John. (See Salter and Hughes.)						
Hughes, John, Somerville, assignor to Crosby Steam Gate and Valve Company, Boston, Mass. Safety-valve.....	391,472	Oct. 23	1816	485	45	372
Hughes, Joseph M., and A. P. W. Wade, Cedar City, Mo. Feed-trough.....	388,493	Aug. 28	1997	537	44	977
Hughes, Kate D., Washington, D. C. Sash-fastener.....	376,654	Jan. 17	1335	350	42	270
Hughes, Oliver, Callao, Mo. Fire-escape.....	376,034	Jan. 3	433	115	42	87
Hughes, Oliver, Callao, Mo. Car-coupling.....	376,386	Jan. 10	923	243	42	186
Hughes, Richard, Wooster, A. E. and J. C. Lake, Big Prairie, assignors to Square Hole? Anger Company, Wooster, Ohio. Square-hole angle.....	377,199	Jan. 31	2129	{ 561 562 }	42	440
Hughes, Robert, Waterford, N. Y. Straight-way valve.....	387,164	July 31	2222	713	44	557
Hughes, Robert, Waterford, N. Y. Hydrant.....	394,652	Dec. 18	1390	363	45	1357
Hughes, Smith E., Philadelphia, Pa. Reservoir for water-closets.....	391,219	Oct. 16	1499	398	45	304



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hughes, Thomas, assignor of two-thirds to W. L. Beardsley and G. S. Hazard, Detroit, Mich. Clamp for cracked hoofs	376,441	Jan. 17	1015	266	42	210
Hughes, Thomas W., assignor of one-half to W. G. Fortson, Atlanta, Ga. Sewing-machine motor	386,782	July 24	2197	559	44	438
Hughes, Tyre C., assignor of three-fourths to E. E. Smith, F. B. Wright, and J. L. Stablesfield, Kansas City, Kans. Nut-lock	391,974	Oct. 30	2527	684	45	527
Hughes, William, Minerva, Ohio. Adjustable screen-door	394,651	Dec. 18	1389	363	45	1357
Hughes, William D., Washington, D. C. Door-lock and attachment	393,648	Nov. 27	2168	567	45	1043
Hugon, Gabriel R., Seedley, Mount Pendleton, Manchester, county of Lancaster, England. Pantographic engraving-machine	384,764	June 19	1378	361	43	1400
Huguenin, Henry, Waltham, Mass. Means for beveling watch-wheels	381,785	Apr. 24	2216	580	43	467
Huguenin, Henry, Waltham, Mass. Hair-spring collet and stud	384,166	June 5	484	133	43	1215
Huguenin-Thiébaud & Fils, C. (See Robert, Alfred H., assignor.)						
Huidekoper, Arthur C., Meadville, Pa. Gas-generator for locomotives	383,395	May 22	2260	601	43	972
Huidekoper, Arthur C., and L. Houze, Meadville, Pa. Furnace	378,839	Feb. 28	2238	596 597	42	955
Hulbert, Joseph J., et al. (See Metcalf, George A., assignor.)						
Hullett, George H., Cleveland, Ohio. Hoisting apparatus	376,655	Jan. 17	1336	351	42	270
Hullett, John S., Napanee, Ontario, Canada. Road-part	378,888	Mar. 6	46	13	42	975
Hullett, Thaddeus W. (See Fickett, Albert, assignor.)						
Hulford, William J., assignor to himself and J. Robinson, Lawrence, Mass. Let-off mechanism for looms	379,311	Mar. 13	652	177	42	1095
Hull, Albert, New Boston, Mass. Leather-splitting machine	379,700	Mar. 20	1233	328	42	1215
Hull, Daniel E., Adrian, Mich. Axle-bearing	387,719	Aug. 14	798	205	44	731
Hull, Franklin P., Belleville, N. J. Billard cue and tip	390,660	Oct. 9	922	243	45	187
Hull, Henry S., et al. (See Struble, Charles W., assignor.)						
Hull, John S. (See Wagandt and Hull.)						
Hull, Martin L., Cleveland, Ohio. Vapor-store	377,159	Jan. 31	2076	546	42	428
Hull, Martin L., Cleveland, Ohio. Vapor paint-burner	391,745	Oct. 23	2177	588	45	447
Hull, Wolcott A., et al. (See Blackman, Ebenezer, assignor.)						
Hull, Wolcott A., et al. (See Lyman, Charles H., assignor.)						
Hullings, Charles W., Burlington, N. J. Locomotive fire-box	386,431	July 17	1619	425	44	334
Hulme, Isaac, Yaquina, Oreg. Rail-punch	388,977	Sept. 4	253	67	44	1120
Hulst, Nelson P., Milwaukee, Wis. System of developing and working mines	393,306	Nov. 20	1642	433 434	45	929
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Permanent magnet for electrical apparatus	375,749	Jan. 3	43	12, 13	42	12
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Armature for magneto-electric machines	375,756	Jan. 3	44	13	42	12
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Magneto-electric machine	375,751	Jan. 3	45	13, 14	42	12
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Magneto-electric machine	386,071	July 10	1075	288 289	44	220
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Magnetic annunciator	388,876	Sept. 4	107	28	44	1093
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Magneto-electric machine	388,877	Sept. 4	108	20	44	1003
Humans, William, Cambridge, Mass., assignor to American Magnetic Electric Company, Jersey City, N. J. Electro-magnetic bell	389,080	Sept. 4	396	104	44	1149
Humaston, John L., Terre Haute, Ind. Apparatus for preserving meat or fish	390,170	Sept. 25	2082	555	44	1497
Humbert, Hiram C. (See Carl, Lorenzo D., assignor.)						
Humble, Albert A., assignor of one-half to W. H. Aldrich, Chicago, Ill. Bread-making machine	381,554	Apr. 24	1889	498 499	43	402
Humble, Joseph P., Plainfield, N. J. Coffee-mill	381,674	Apr. 10	1176	313	43	237
Humble, Robert, St. Paul, Minn. Connecting-rod	391,148	Oct. 16	1361	364	45	277
Humiston, Ransom F., Boston, Mass. Portable cooling apparatus for houses	387,954	Aug. 14	1154	312	44	802
Humphrey, Abbie V., Somerville, Mass. Shirt	390,673	Oct. 9	657	176	45	139
Humphrey, Abraham S., assignor to E. Storm Spring Company, (limited,) Poughkeepsie, N. Y. Elevator	393,831	Dec. 4	140	39	45	1099
Humphrey, Alfred H., Mendon, Mich. Photographic burnishing-machine	388,681	Aug. 28	2265	608	44	1027
Humphrey, Helen M., Clayville, N. Y. Bracket	386,248	July 17	1359	358	44	279
Humphrey, Henry H., Detroit, Mich. Straight-knitting machine	390,023	Sept. 25	1853	491	44	1449
Humphreys, William. (See Knapp, McKenzie, and Humphrey.)						
Humphreys, Alexander C., Philadelphia, Pa., assignor to United Gas Improvement Company. Apparatus for the manufacture of gas	378,095	Feb. 21	1123	293 294	42	734
Humphreys, C. H. (See Regna, Charles M., assignor.)						
Humphreys, David, Cincinnati, Ohio. Galvanic battery	390,674	Oct. 9	659	177	45	139
Humphreys, David, Cincinnati, Ohio. Galvanic battery	390,675	Oct. 9	661	177	45	139
Humphreys, David, Cincinnati, Ohio. Galvanic battery	390,676	Oct. 9	662	177	45	140
Humphreys, David, Cincinnati, Ohio. Galvanic battery	390,677	Oct. 9	661	177	45	140
Humphreys, Thomas H., assignor of one-half to C. T. Holloway, Baltimore, Md. Snap-hook	386,286	Mar. 27	2103	562	42	1395
Humphries, John, Philadelphia, Pa. Carpet fabric	388,682	Aug. 28	2267	608	44	1028
Humstone, Edwin M., Hartford, Conn., assignor to J. Ferguson, Bridgewater, Mass. Engine-valve	380,325	Apr. 3	26	7, 8	43	7
Hunger, C. F. (See Schmuck, Solomon H., assignor.)						
Huicke, Henry A., St. Louis, Mo. Manufacturing zinc	393,832	Dec. 4	142		45	1099
Hunsacker, John O., et al. (See Frey, Franklin, assignor.)						
Hunsaker, Andrew R., Fulton, Ky. Draft-detaching device	380,628	Apr. 3	479	135	43	98
Hunt, Charles B. (See Moss and Hunt.)						
Hunt, Charles E., Miamisburg, Ohio. Vehicle-wheel hub	392,123	Oct. 30	2763	750	45	573
Hunt, Charles E., N. B. Helm, and H. L. Ferris, Harvard, Ill. Wire-stretcher	395,146	Dec. 25	2209	567	45	1524
Hunt, Charles H. (See Jaques, Ira T., assignor.)						
Hunt, Charles L. (See Rossney and Hunt.)						
Hunt, Charles W., West New Brighton, assignor to C. W. Hunt Company, New York, N. Y. Chain belt	378,686	Feb. 28	2007	530	42	911
Hunt, Charles W., West New Brighton, assignor to C. W. Hunt Company, New York, N. Y. Railway-motor truck	379,786	Mar. 20	1358	362	42	1240
Hunt Company, C. W. (See Hunt, Charles W., assignor.)						
Hunt, Edwin, Cleveland, Ohio. Hydraulic elevator	388,683	Aug. 28	2268	608 609	44	1028
Hunt, Frank M., Round Oak, Ga. Mowing-machine	386,015	July 10	999	266	44	204
Hunt, Henry B., New York, N. Y. Compass-corrector	391,534	Oct. 23	1895	509	45	389
Hunt, Howard, Monroe, Wis. Wagon-brake	394,365	Dec. 11	945	248	45	1262

## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Hunt, John C. (See Schiefer, William D., assignor.)						
Hunt, John C., et al. (See Poulson, Britton, assignor.)						
Hunt, John M., Cedar Town, Ga. Churn	391,149	Oct. 16	1362	364	45	277
Hunt, John P., Philadelphia, Pa. Traction-cable railway	387,592	Aug. 7	606	{ 157 158 }	44	688
Hunt, Joseph, Ackley, Iowa. Cultivator attachment for gathering potato-bugs	387,720	Aug. 14	799	205	41	732
Hunt, Joseph H., West Troy, N. Y. Boat construction	386,432	July 17	1620	426	41	334
Hunt, Lewis E., Hiram, Ga. Car-coupling	390,602	Oct. 2	562	149	45	113
Hunt, Preston R., Plattsville, assignor of one-half to A. J. Cory, Tawawa, Ohio. Corn-harvester	388,684	Aug. 28	2270	609	44	1028
Hunt, Robert W., Troy, N. Y., assignor to Clapp & Griffiths Steel Company, Pittsburg, Pa. Converter	379,894 393,981	Mar. 20 Dec. 4	1552 364	409 97	42 45	1276 1141
Hunter, Andrew, Milwaukee, Wis. Middlings-purifier	376,656	Jan. 17	1338	351	42	270
Hunter, Arvine P., Lowell, assignor of two-thirds to H. W. Beecher and J. L. Kyner, Grand Rapids, Mich. Displaying-rack	379,162	Mar. 6	433	122	42	1048
Hunter, Edward T., McGregor, Tex. Bin	381,698	Apr. 24	2095	548	43	444
Hunter, Elizabeth. (See Hunter, George D., assignor.)						
Hunter, George C., Chelance, Ill. Auxiliary motor for windmills	381,498	Apr. 17	1805	{ 479 480 }	43	368
Hunter, George D., assignor of one-half to E. Hunter, Auburn, Ill. Cartridge-loading machine	381,499	Apr. 17	1811	480	43	370
Hunter, George D., assignor of one-half to E. Hunter, Auburn, Ill. Machine for cutting and crimping cartridge-shells	383,529	May 29	2481	655	43	1019
Hunter, James. (See Winick, Frederick G., assignor.)						
Hunter, James M., assignor of one-half to C. A. Seiberl, St. Louis, Mo. Coffee-mill	379,167	Mar. 6	434	122	42	1048
Hunter, James M., assignor to American Bolster Spring Company, St. Louis, Mo. Bolster-spring for wagons	380,574	Apr. 3	406	116	43	83
Hunter, John S., Chicago, Ill. Device for compressing air	392,611	Nov. 13	646	{ 161 162 }	45	725
Hunter, Joseph H., Washington, D. C. Fish-hook	385,913	July 10	873	231	44	179
Hunter, Joseph L., Pittsburg, Pa. Hot-blast stove	386,635	July 24	1911	{ 505 506 }	44	399
Hunter, Joseph W., and J. A. Mackay, Leeds, county of York, England. Combined pin or watch box and advertising-card	389,814	Sept. 18	1535	406	44	1380
Hunter, Lewis C., Fort Wayne, Ind. Farm-gate	391,742	Oct. 23	2119	588	45	447
Hunter, Mary E., Osborn, Ohio. Guide for sewing-machines	389,152	Sept. 4	537	135	44	1171
Hunter, Oliver H., Warren, Pa. Tag hook or needle	377,160	Jan. 31	2078	546	42	429
Hunter, Robert L., Norfolk, Va. Dental anodyne	394,693	Dec. 18	1460		45	1371
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	377,107	Jan. 31	2016	528	42	415
Hunter, Rudolph M., Philadelphia, Pa. Street-railway	380,575	Apr. 3	407	116	43	83
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	384,908	June 19	1593	415	43	1439
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	381,910	June 19	1596	415	43	1440
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	384,911	June 19	1598	415	43	1441
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	384,912	June 19	1600	416	43	1441
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	385,054	June 26	1830	469	43	1496
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	385,055	June 26	1832	469	43	1497
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	385,180	June 26	2005	514	43	1532
Hunter, Rudolph M., Philadelphia, Pa. Electric railway	392,675	Nov. 13	732	186	45	741
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	381,555	Apr. 24	1891	499	43	403
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	381,556	Apr. 24	1894	499	43	403
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	382,876	May 15	1479	388	43	814
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	384,576	June 12	1099	289	43	1338
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	384,909	June 19	1594	415	43	1440
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	385,053	June 26	1827	469	43	1496
Hunter, Rudolph M., assignor to Electric Car Company of America, Philadelphia, Pa. Electric railway	385,672	July 3	504	130	44	98
Hunter, Rudolph M., Philadelphia, Pa., assignor to Taylor Metallic Railway Tie Company, of New Jersey. Railway	382,470	May 8	897	229	43	628
Hunter, Rudolph M., assignor to Electric Car Company, Philadelphia, Pa. Electric railway	382,877	May 15	1482	{ 388 389 }	43	815
Hunter, Rudolph M., Philadelphia, Pa., assignor to Electric Car Company of America, of Pennsylvania. Manufacture of secondary batteries	383,575	May 29	2539	670	43	1032
Hunter, Rudolph M., assignor to H. S. Hale, Philadelphia, Pa. Car-seat	389,514	Sept. 11	1075	{ 285 286 }	44	1284
Hunter, Seth G., Watertown, N. Y. Belt-tightener	386,130	July 17	1179	314	44	246
Huntington, Charles W., and E. A. Tracy, assignors to W. A. Aiken, Norwich, Conn. Shoe-rest	388,685	Aug. 28	2272	610	44	1029
Huntington, Frank A., San Francisco, Cal. Ore-feeder	392,562	Nov. 6	560	142	45	702
Huntley, Albert, Ostrander, Ohio. Seed-drill	390,603	Oct. 2	563	149	45	113
Huntley, Hosea H., assignor to M. L. Huntley, Quincy, Ill. Molder's flask	389,153	Sept. 4	538	135	44	1171
Huntley Kindling Wood Company, W. C. (See Wynan, Joseph A. R., assignor.)						
Huntley, Mary L. (See Huntley, Hosea H., assignor.)						
Huntley, William W., Silver Creek, N. Y. Rudder	381,786	Apr. 24	2217	580	43	467
Huntly, Maurice, Philadelphia, Pa. Truck	385,181	June 26	2006	514	43	1532
Hunzinger, George, New York, N. Y. Chair	380,629	Apr. 3	480	135	43	98
Hurd, Charles W., Glens Falls, N. Y. Composition of matter to be used as a calcimine	393,157	Nov. 20	1427		45	886
Hurd, Dexter N., Kokomo, Ind. Circular saw	384,979	June 26	1693	440	43	1469
Hurdle, Helen F. (See Hurdle and Steiger, assignors.)						
Hurdle, Julian A., and A. W. Steiger, assignors to H. F. Hurdle, New York, N. Y. Rotary engine	389,927	Sept. 25	1725	{ 456 457 }	44	1424
Hurdle, Julian A., and A. W. Steiger, assignors to H. F. Hurdle, New York, N. Y. Dynamometrical governor	389,928	Sept. 25	1726	457	44	1424
Hurlburt, Edward. (See Benjamin, Dana H., assignor.)						
Hurlburt, Samuel W., Creston, Iowa. Ventilator	376,094	Jan. 10	518	138	42	111
Hurlbut, Cornelius S., Springfield, Mass. Artificial tooth-crown	377,835	Feb. 14	781	200	42	659
Hurlbut, Ira D., Prairie du Chien, Wis. Stereotyping casting-box	376,743	Jan. 21	1471	388	42	305
Hurlbut, Rufus H., Sudbury, Mass. Belt-shipper	385,713	July 10	572	148	44	119
Hurley, Cornelius F., Northfield, Vt. Signal-holder	394,983	Dec. 25	1958	504	45	1476

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hurley, Samuel W. (See Newton, George A., assignor.)						
Hurley, Simon J., assignor of one-half to P. McDermott, New Haven, Conn. Horseshoe-pliers.	382,263	May 1	566	143	43	617
Hurston, Gregory, Milwaukee, Wis. Temporary ship's berth	394,186	Dec. 11	661	177	45	1206
Hurst, Charles S. (See Cocker and Hurst.)						
Hurst, Harris P. (See Hawley and Hurst.)						
Hurst, Harris P., Summit, Miss., assignor to Hurst Reinforce Cartridge and Arms Company, of New Jersey. Accelerating-cartridge.	390,232	Oct. 2	55	16	45	15
Hurst, Harris P., Summit, Miss., assignor to Hurst Reinforce Cartridge and Arms Company, of New Jersey. Projectile.	391,367	Oct. 16	1664	440	45	334
Hurst Reinforce Cartridge and Arms Company. (See Hurst, Harris P., assignor.)						
Hurst, William, Rochdale, county of Lancaster, England. Machine for linking warps.	387,165	July 31	2724	714 } 41	44	537
Hurt, James, Osceola, Mo. Wagon-standard.	386,433	July 17	1621	426	44	334
Hurtubise, Alexander, Saginaw, Mich. Sleigh.	388,878	Sept. 4	110	29	44	1093
Hurych, Joseph, Brooklyn, N. Y. Alloy.	390,972	Oct. 9	1097		45	220
Huson, Winfield S., Taunton, Mass., assignor to Campbell Printing Press and Manufacturing Company, New York, N. Y. Ratchet-movement.	383,054	May 15	1760	455	43	868
Husselman, Samuel B., Chicago, Ill. Iron fence.	383,296	May 22	2119	559	43	917
Hussey, Charles R. (See Ford and Hussey.)						
Hussey, Charles R., assignor of one-half to G. A. Ford, Cleveland, Ohio. Split pulley.	392,269	Nov. 6	135	34	45	620
Hussey, Everett, Hudson, Mass. Portable folding hammock-stand.	382,648	May 8	1172	303	43	744
Hussey, John W., Brooklyn, N. Y. Polishing and varnishing machine.	376,198	Jan. 10	670	178	42	138
Hussey, Thomas, Lawrence, assignor to J. W. Brooks, trustee, Cambridge, Mass. Heel-making die.	393,111	Nov. 20	1365	356	45	873
Hussong, Henry and J., Camden, N. J. Dyeing-machine.	394,694	Dec. 18	1461	381	45	1371
Hussong, Joseph. (See Hussong, Henry and J.)						
Huston, Harrison, and E. J. Martin, Idaho Springs, Colo. Turu-table for tramways or street-railways.	385,807	July 10	709	184	44	146
Huston, James N. (See Hiers, John, assignor.)						
Huston, Winfield S., Fayette County, Ohio. Flood-gate.	380,653	Apr. 3	516	144	43	105
Hutchins, George E. (See Betz, Ernest, assignor.)						
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Take-up mechanism for looms.	380,117	Mar. 27	1879	500	42	1349
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Shedding mechanism for looms.	380,118	Mar. 27	1881	500	42	1350
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Let-off mechanism for looms.	381,787	Apr. 24	2218	581	43	467
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Planer attachment for cutting internal gears.	381,788	Apr. 24	2219	581	43	467
Hutchins, George F., assignor to Knowles Loom Works, Worcester, Mass. Clutch-coupling.	383,297	May 22	2120	559	43	948
Hutchins, George K. (See Banks and Hutchins.)						
Hutchins, Wilbur W., Newport, Vt. Gasoline-can.	377,520	Feb. 7	264	66	42	545
Hutchins, Wilbur W., assignor to W. C. Whitney, Newport, Vt. Lantern.	387,976	Aug. 14	1180	321	44	807
Hutchinson, Alfred B., Brooklyn, assignor to Glen Cove Machine Company, (limited), Green Point, Brooklyn, N. Y. Box for upright spindles.	392,732	Nov. 13	821	208	45	759
Hutchinson, Arthur H., Philadelphia, Pa. Compression-pump for ice-machines.	387,234	Aug. 7	52	12	44	581
Hutchinson, Christopher C. (See Johnson and Hutchinson.)						
Hutchinson, Edward, New York, N. Y. Spring for side-bar vehicles.	379,787	Mar. 20	1359	362	42	1240
Hutchinson, John B., Penn's Grove, N. J. Wagon-standard.	383,055	May 15	1761	455	43	868
Hutchinson, Stephen G., Columbus, Ohio. Pile.	383,884	June 5	51	16	43	1131
Hutchinson, William A. (See Pugh, Cortez V., assignor.)						
Huth, John A., Bayard, Ohio. Portable crane.	382,307	May 8	640	163	43	641
Huther, Jacob, St. Louis, Mo., assignor to J. C. Hackett, Belleville, Ill. Trace-fastener for whiffletrees.	390,171	Sept. 25	2084	555	44	1497
Hutton & Company, J. M. (See Torbeck, William H., assignor.)						
Hutton, James C., Corvallis, Ore., assignor of one-half to P. J. McElroy, East Cambridge, Mass. Spirit-level.	385,516	July 3	273	70, 71	44	96
Hutton, John, New Utrecht, assignor of one-half to J. W. Fowler, Brooklyn, N. Y. Car-ventilator.	380,440	Apr. 3	196	54	43	40
Huxtable, James, Horning's Mills, Ontario, Canada. Middlings-purifier.	387,955	Aug. 14	1155	312	44	802
Huyck, Francis P. (See Baker and Huyck.)						
Huyett, Daniel D., Waynesborough, Pa. Drawing-board.	386,072	July 10	1076	289 } 290	44	220
Hvass, Charles. (See O'Neill, John, assignor.)						
Hyatt, Frank A., and E. D. Tankersley, Alamosa, Colo. Manacle.	380,441	Apr. 3	197	54	43	40
Hyatt, George E., New York, N. Y. Permutation-lock.	394,273	Dec. 11	799	212	45	1233
Hyatt, George W., and W. Dick, Three Mile Bay, N. Y. Thill-coupling.	378,640	Feb. 28	2240	597	42	956
Hyatt, John W., Newark, N. J. Porous filter-cup.	382,649	May 8	1173	303	43	744
Hyatt, John W., Newark, N. J. Anti-friction journal-bearing.	385,266	June 26	2149	547	43	1562
Hyatt, John W., Newark, N. J. Anti-friction journal-bearing.	385,267	June 26	2150	548	43	1562
Hyatt, John W., Newark, N. J. Dust-guard for axle-boxes.	388,136	Aug. 21	1458	391	44	867
Hyatt, John W., Newark, N. J., assignor to Hyatt Pure Water Company. Rotating or oscillating filter.	376,095	Jan. 10	518	138	42	111
Hyatt Pure Water Company. (See Hyatt, John W., assignor.)						
Hyatt School Slate Company. (See Knauss, George L., assignor.)						
Hyatt, William F., Brooklyn, N. Y. Safety-pin.	375,873	Jan. 3	190	53	42	41
Hyde, A. M. (See Steele, Ransom, assignor.)						
Hyde, Alfred T., Oil City, Pa. Trunk.	395,055	Dec. 25	2057	530	45	1497
Hyde, Elwin R., Springfield, Mass. Belt-shifting device.	375,752	Jan. 3	46	14	42	13
Hyde, Elwin R., assignor to Springfield Glue and Emery Wheel Company, Springfield, Mass. Wear-compensating device.	395,275	Dec. 25	2414	618	45	1561
Hyde, Elwin R., and A. Valentine, assignors to Springfield Glue and Emery Wheel Company, Springfield, Mass. Grinding-machine.	375,821	Jan. 3	129	38	42	30
Hyde, Frank, Sioux Falls, Dak. Ter. Ruby-pin setter.	381,693	June 19	1290	337	43	1382
Hyde, James C., assignor to West Haven Buckle Company, West Haven, Conn. Buckle.	379,515	Mar. 13	955	257	42	1153
Hyde, John, Acton, near London, county of Middlesex, England, assignor of one-half to G. H. Howard, Niagara Falls, Canada. Game of draughts to be played by three persons, and apparatus therefor.	378,931	Mar. 6	102	29	42	986
Hyde, Robert N., Des Moines, Iowa. Composition for cleaning and preserving carpets.	392,205	Nov. 6	40		45	602
Hyde, Theophilus R., Jr. (See Shipley, Sperry, and Hyde.)						
Hyde, Theophilus R., Jr., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button.	376,958	Jan. 24	1792	471	42	365
Hyde, Theophilus R., Jr., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button-fastener.	389,386	Sept. 11	897	234	44	1251

## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Hydraulic Elevator Company. (See Baldwin, Cyrus W., assignor.)						
Hydraulic Elevator Company. (See Bassett, Norman C., assignor.)						
Hydrogen Company of the United States. (See Gesner, George W., assignor.)						
Hyer, Charles S., Washington, D. C. Rubber mat for store cases and counters	372,369	Feb. 21	1541	403	42	812
Hyer, Walter E., Newburg, N. Y. Electric motor	391,797	Oct. 30	2270	615	45	846
Hyland, Henry H., assignor et one-half to T. H. Phelps, Pittsburg, Pa. Steam-generator	394,574	Dec. 18	1266	{ 331 332 }	{ 45 }	1335
Hymers, Robert, London, Ontario, Canada. Automatic horse-tie	376,803	Jan. 24	1577	413	42	324
Hynds, George A., Little Falls, N. Y. Vehicle-thills	386,587	July 24	1853	490	44	326
Hyneman, David J. and I. W., Corinth, Miss. Hay-press	377,458	Feb. 7	164	38	42	526
Hyneman, Irven W. (See Hyneman, David J. and I. W.)						
Hynes, Olive S. (See Prouty and Hynes.)						
Hyre, Daniel, Jamton, Ohio. Fence	392,733	Nov. 13	823	209	45	759
Iams, Rezin. (See Johnson Henry B., assignor.)						
Ibach, Theodore A., Philadelphia, Pa. Cable-railway transfer mechanism	395,276	Dec. 25	2415	{ 618 619 }	{ 45 }	1561
Ide, Albert L., Springfield, Ill. Steam-engine indicator	375,874	Jan. 3	191	53	42	41
Ide, Albert L., Springfield, Ill. Steam-engine indicator. (Reissue.)	40,918	Apr. 3	551	151	43	111
Ide, Fred B., assignor to Ide & McLeod, Troy, N. Y. Stamping device for cuff-blank hem-folding and cutting machines	394,274	Dec. 11	800	213	45	1224
Ide, Harry L., et al. (See Johnson, Willis H., assignor.)						
Ide & McLeod. (See Ide, Fred B., assignor.)						
Idle, Thomas B., Crayon, Ohio. Coffee-pot	391,617	Oct. 23	2006	542	45	412
Iglesias, José, Havana, Cuba. Station-indicator	377,258	Jan. 31	2223	{ 587 588 }	{ 42 }	456
Iliff, Richard W., Hinsdale, Ill. Brush	388,137	Aug. 21	1459	391	44	567
Iliff, Richard W., Hinsdale, Ill. Bridle for paint-brushes	392,338	Nov. 6	238	61	45	639
Illingworth, John. (See Staats and Illingworth.)						
Illingworth, John, Newark, N. J. Ingot-forming apparatus	382,427	May 8	822	{ 210 211 }	{ 43 }	675
Illingworth, John, Newark, N. J. Casting metal ingots	390,861	Oct. 9	923	{ 243 244 }	{ 45 }	187
Illingworth, John, Newark, N. J. Ingot-forming apparatus	391,695	Dec. 18	1462	382	45	1371
Illinois Street Gas Company. (See Voltz, George M., assignor.)						
Illoyay, Nettie, Cincinnati, Ohio. Paint-cup	377,306	Jan. 31	2297	608	42	470
Ilston, George, assignor to Royal Machine Manufacturing Company, (limited,) Birmingham, county of Warwick, England. Velocipede	383,396	May 22	2262	{ 601 602 }	{ 43 }	972
Isley, Silas A. (See Mungiven, James M., assignor.)						
Imbach, Martin G., Brooklyn, assignor to Improved Horse Shoe Company, New York, N. Y. Mold	383,885	June 5	52	17	43	1131
Imbrie, Charles F. (See Prichard, Henry, assignor.)						
Imbhauser, E. (See Berghausen, August, assignor.)						
Immitisch, Moritz, London, county of Middlesex, England. Dynamo-electric machine and motor	381,789	Apr. 24	2221	{ 581 582 }	{ 43 }	468
Improved Horse Shoe Company. (See Imbach, Martin G., assignor.)						
Improved Sole Sewing Machine Company. (See Comey, Willard, assignor.)						
India Rubber Comb Company. (See Grummon, John W., assignor.)						
India Rubber Comb Company. (See Schlesinger, Augustus D., assignor.)						
Ingalls, Asa H., Haver Centre, N. H. Insect-destroyer	381,377	Apr. 17	1623	433	43	332
Ingalls, Charles L., assignor of one-half to G. F. Blair, Lowell, Mass. Lamp-chimney	380,801	Apr. 10	750	205	43	157
Ingalls, E. Herbert, et al. (See Enos, John A., assignor.)						
Ingalls, John C., Marquette, Mich., assignor to C. Miller & Son, Utica, N. Y. Stove-pipe damper	380,204	Mar. 27	1996	534	42	1373
Ingalls, John C., Marquette, Mich., assignor to C. Miller & Son, Utica, N. Y. Stove-pipe damper	385,714	July 10	573	148	44	119
Ingells, James, Alba, Mich. Churn						
Ingersoll, Oscar E. (See Overton and Ingersoll.)						
Ingersoll Rock Drill Company. (See Saunders, William L., assignor.)						
Ingersoll, Simon, Glenbrook, Conn. Rock-drill	381,838	Apr. 24	2309	600	43	483
Ingersoll, Simon, Stamford, Conn., assignor to Pond, West & Simons, Port Chester, N. Y. Hood for life-line projectiles	394,926	Dec. 18	1866	482	45	1450
Ingham, William P., Middlesbrough, county of York, England. Coin-released height-measuring apparatus	379,071	Mar. 6	303	89	42	1023
Inghram, Aaron G., Omaha, Nebr. Railway-alarm	390,081	Sept. 25	1954	519	41	1470
Inghram, Thomas G., Central City, Nebr. Thill-coupling	379,578	Mar. 20	1058	282	42	1180
Ingleton, Edward, Toronto, Ontario, Canada. Steam plowing apparatus	382,983	May 15	1628	426	43	843
Inglis, Thomas. (See Lansberg, Frank, assignor.)						
Ingraham, Arthur J., trustee. (See Goebel, Christian H., assignor.)						
Ingraham Company, E. (See Ingraham, William S., assignor.)						
Ingraham, James F., West Peabody, assignor of one-half to J. P. Murphy, Boston, Mass. Machine for staking leather	387,305	Aug. 7	162	43	44	602
Ingraham, Leprelette P., and G. L. Hubbell, Bridgeport, Conn., assignors, by mesne assignments, to D. C. Oyster, Ridgway, Pa. Hand sewing-machine	389,081	Sept. 4	399	{ 104 105 }	{ 44 }	1149
Ingraham, Nathan D. (See Clark and Ingraham.)						
Ingraham, William S., assignor to E. Ingraham Company, Bristol, Conn. Marbleizing wood	387,885	Aug. 14	1029	270	44	777
Ingraham, William S., assignor to E. Ingraham Company, Bristol, Conn. Marbleized wood	387,977	Aug. 14	1182	321	44	807
Ingram, J. C. (See Jeffers and Thurman, assignors.)						
Ingram, James G., London, England. Manufacture of tobacco-pouches	385,628	July 3	446	115	44	87
Inman, Horace, Amsterdam, N. Y. Cut-off attachment for paper-box-covering machines	376,096	Jan. 10	520	139	42	111
Innis, W. J., et al. (See Hamlin, George B., assignor.)						
Innis, W. O., et al. (See Hamlin, George B., assignor.)						
Innis, Warren O., et al. (See Hamlin, George B., assignor.)						
Innis, William J., et al. (See Hamlin, George B., assignor.)						
Isinger, Alfred, assignor to W. P. Uhlinger, Philadelphia, Pa. Machine for winding spools, &c.	381,416	June 12	904	235	43	1301
Isull, Samuel. (See Bates, Edwin G., assignor.)						
Inter Ocean Electric Company. (See Cadwallader, Bassett, assignor.)						
International Electric Company. (See Watson, John E., assignor.)						
International Fastening Company. (See Kraetzer, Edwin J., assignor.)						
International Fastening Company. (See Mead, Albert G., assignor.)						
International Oil Gas Company of New York. (See Hall, Thurston G., assignor.)						
International Postal Supply Company. (See Laass and Hey, assignors.)						
International Tooth Crown Company. (See Richmond, Cassius M., assignor.)						
Iowa Road Grader and Ditcher Manufacturing Company. (See Martin, Wellington J., assignor.)						
Iredell, George S., Philadelphia, Pa. Toy savings-bank	377,259	Jan. 31	2224	588	42	456

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'g.	Vol.	Page.
Ireland, David M. (See Matthews and Ireland.)						
Ireland, David M., Waterbury, Conn. Harness-rose	389,387	Sept. 11	898	234	44	1251
Iron Car Company. (See Goodfellow, James T., assignor.)						
Iron Clad Manufacturing Company. (See Milligan, Henry C., assignor.)						
Ironmonger, Francis M., Brooklyn, N. Y. Bleaching edible nuts	346,202	July 17	1268		44	264
Irens, James A., Water Cure, Pa. Hot-air grate	393,236	Nov. 20	1542	404	45	910
Irvin, Edwin S., Berkeley, assignor to Pacific Indicator Company, San Francisco, Cal. Station-indicator	377,384	Feb. 7	28	8, 9	42	500
Irvine, Albert C., assignor to W. Smith, Boston, Mass. Metal-cutter	384,694	June 19	1291	337	43	1382
Irving, Jason L., San Francisco, Cal. Station-indicator	393,237	Nov. 20	1544	404	45	910
Irving, Jason L., San Francisco, Cal. Station-indicator	393,706	Nov. 27	2252	591	45	1059
Irving, William, Chicago, Ill. Apparatus for returning water of condensation to generators	394,850	Dec. 18	1746	453	45	1423
Irwin Auger Bit Company. (See Irwin, Charles H., assignor.)						
Irwin, Charles H. (See Thomas and Irwin.)						
Irwin, Charles H., assignor to Irwin Auger Bit Company, Wilmington, Del. Die for making auger-bits	378,251	Feb. 21	1367	359	42	778
Irwin, Hall M., Hanford, Cal. Gang-plew	380,895	Apr. 10	898	240	43	184
Irwin, John H., Merton, Pa. Telephone-transmitter. (Reissue)	10,915	Mar. 27	2131	570	42	1401
Irwin John P., Newark, Ohio. Farm-gate	390,127	Sept. 25	2017	538	44	1483
Irwin, Joseph, Topeka, Kans. Electric railway signaling system	389,226	Sept. 11	654	167	44	1203
Irwin, Samuel B., West Hobron, N. Y. Seat for vehicles	376,887	Jan. 24	1699	444	42	347
Irwin, William H., and G. W. Haigrove, Wilderville, Tex. Cotton-cultivator	382,162	May 1	417	109	43	590
Isaac, Joseph. (See Hoop and Isaac.)						
Isaacson, David, Providence, R. I. Making pictures	395,234	Dec. 25	2358		45	1549
Isakovitz, David, New York, N. Y. Necktie-fastening	385,629	July 3	448	115	44	87
Isbell, Arista H., Asheville, N. C. Memorandum-calendar	384,526	June 12	1029	269	43	1324
Isbell, Charles W., New York, N. Y. Gearing	391,535	Oct. 23	1896	509	45	390
Isbell Machine Company. (See Isbell, Robert H., assignor.)						
Isbell, Robert H., New York, N. Y., assignor, by mesne assignments, to Isbell Machine Company. Railway-switch	379,072	Mar. 6	305	90	42	1023
Isdell, Nelson J. (See Harris, Lafayette, assignor.)						
Isell, Frederick, Yonkers, N. Y. Child's carriage	395,277	Dec. 25	2416	619	45	1562
Iske, Albert. (See Iske, Anthony and A.)						
Iske, Albert. (See Landis and Iske.)						
Iske, Albert, Lancaster, Pa. Motor	389,515	Sept. 11	1077	286	44	1284
Iske, Anthony, assignor to I. L. Landis, Lancaster, Pa. Door-bell	378,317	Feb. 21	1466	383	42	796
Iske, Anthony, assignor to I. L. Landis, Lancaster, Pa. Door-mat bell	378,962	Mar. 6	140	41	42	994
Iske, Anthony, assignor to I. L. Landis, Lancaster, Pa. Washing-machine	389,516	Sept. 11	1079	286	44	1284
Iske, Anthony and A., assignors to I. L. Landis, Lancaster, Pa. Bell	379,114	Mar. 6	371	105	42	1035
Isen, Edmund Q., Long Island City, N. Y. Umbrella	378,963	Mar. 6	141	41	42	994
Israel, David. (See Ferrell and Israel.)						
Israel, Earl H., St. Louis, Mo. Water-closet	391,714	Oct. 23	2137	578	45	439
Israel, John, St. Louis, Mo. Burglar-alarm	386,131	July 17	1181	314	44	246
Israel, John, St. Louis, Mo. Alarm	386,132	July 17	1181	315	44	246
Israel, John, St. Louis, Mo. Burglar-alarm	386,133	July 17	1182	315	44	247
Israel, John, St. Louis, Mo. Burglar-alarm	386,134	July 17	1183	316	44	247
Israel, John, St. Louis, Mo. Burglar-alarm	386,135	July 17	1184	316	44	247
Isenbuth, Charles C., Huron, Dak. Ter. Four-horse evener	384,167	June 5	485	133	43	1215
Ithaca Gun Co. (See Smith, Leroy H., assignor.)						
Ivers, Alfred, New York, N. Y. Water-closet hopper and bowl	382,089	May 1	323	84	43	572
Ivers & Pond Piano Co. (See Ivers, William H., assignor.)						
Ivers & Pond Piano Company. (See Ivers, William H., assignor.)						
Ivers, William H., Dedham, assignor to Ivers & Pond Piano Company, Boston, Mass. Piano-key bottom	382,471	May 8	599	229	43	689
Ivers, William H., Dedham, assignor to Ivers & Pond Piano Co., Boston, Mass. Bridge for piano-fortes	389,966	Sept. 25	1770	470	44	1433
Ivers, William H., Dedham, assignor to Ivers & Pond Piano Co., Boston, Mass. Damper for pianos	392,270	Nov. 6	136	34	45	620
Ives, Almon K., Missoula, Mont. Ter. Inhaler	388,202	Aug. 21	1562	415	44	866
Ives, Benjamin, Chicago, Ill. Vest-protector	380,576	Apr. 3	410	117	43	83
Ives, Blakeslee & Co. (See Ives, Edward R., assignor.)						
Ives & Co., H. B. (See Ives, Hobart B., assignor.)						
Ives, Edward B., New York, N. Y. Railway-signal-circuit breaker	386,541	July 24	1793	474	44	375
Ives, Edward B., assignor to Ives, Blakeslee & Co., Bridgeport, Conn. Toy pistol	377,808	Feb. 14	724	183	42	648
Ives, Frederic E., Philadelphia, Pa. Saturator for the production of vapor blow-pipe flames	385,934	July 10	900	229	44	184
Ives, H. B., et al. (See Smith, Thomas S., assignor.) (Reissue.)						
Ives, Hobart B., assignor to H. B. Ives & Co., New Haven, Conn. Bolt	378,067	Feb. 14	1081	284	42	718
Ives, William W., assignor of one-half to G. F. Bard, Norwich, Conn. Display-frame	394,927	Dec. 18	1867	433	45	1450
Ivery, James W., Philadelphia, Pa. Combined rubber-dam clamp and napkin-holder	384,577	June 12	1101	299	43	1338
Ivery, James W., Philadelphia, Pa. Rubber-dam adjuster and clamp	384,578	June 12	1102	290	43	1338
Ivery, John C., Somerville, Mass. Manufacture of boots or shoes	382,878	May 15	1487	369	43	817
I-X L Pump Company. (See Hill, James, assignor.)						
Jaccard, Eugène F., Ste. Croix, Switzerland. Music-box	382,870	May 15	1488	389	43	817
Jaccard, Gustave J., New York, N. Y. Safety device for music-boxes	390,024	Sept. 25	1855	492	44	1450
Jack, William H., assignor to O. M. Dunham, Grand Rapids, Mich. Paper-hanger's brush and roller combined	387,562	Aug. 7	560	146	44	680
Jacks, Franklin R. (See Evans and Jacks.)						
Jackson, Amos H., Fremont, Ohio. Bustle	384,850	June 19	1517	395	43	1426
Jackson, Amos H., Fremont, Ohio. Bustle	386,827	July 31	2231	567	44	466
Jackson & Co., W. H. (See Burkhardt, John, assignor.)						
Jackson, Dugald C. (See Anthony, Jackson, and Ryan.)						
Jackson, Edwin A., New York, N. Y. Heating and ventilating grate	394,653	Dec. 18	1392	363	45	1358
Jackson, Garrett H., and J. Harvey, Cleveland, Ohio. Bolster-spring for vehicles	385,630	July 3	448	116	44	87
Jackson, George A., Second Creek, W. Va. Sawing-machine	393,371	Nov. 27	1747	462	45	958
Jackson, George R. (See Mace and Jackson.)						
Jackson, George W., Philadelphia, Pa. Cartridge-shell	390,082	Sept. 25	1955	519	44	1470
Jackson, Ira, Lawrence, Mass. Weft-fork for looms	387,788	Aug. 14	886	229	44	749
Jackson, Isaac, Kingman, Kans. Check-row attachment for planters	382,428	May 8	824	211	43	676
Jackson, Isaac, Glossop, county of Derby, England. Belt-fastener	390,233	Oct. 2	57	16	45	15



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Jackson, Johiel, Port Atkinson, Wis. Running-gear for vehicles	377,260	Jan. 31	2226	589	42	456
Jackson, John, Clinton, Iowa. Sash-fastener	383,886	June 5	54	17	43	1131
Jackson, John, Clinton, Iowa. Sash-lock	383,935	July 10	901	240	44	184
Jackson, John, Springfield Gravelly Hill, near Birmingham, county of Warwick, assignor to P. A. Martin, Birmingham, England. Spring-wire band	381,017	Apr. 10	1080	286	43	218
Jackson, John, Gravelly Hill, and P. A. Martin, Birmingham, county of Warwick, England. Sewing-machine	393,982	Dec. 4	366	98, 99	45	1141
Jackson, John A., Winnebago, Ill. Brood coop	394,696	Dec. 18	1464	382	45	1372
Jackson, John G., Hockessin, Del. Spirit-level	392,124	Oct. 30	2764	751	45	573
Jackson, John M., Havana, Ill. Combined shovel-handle and tamping-bar	394,366	Dec. 11	946	248	45	1262
Jackson, Johnson A. (See Hannahs, Fred. C., assignor.)						
Jackson, Josiah, Coventry, county of Warwick, England, assignor, by mesne assignments, to Springfield Bicycle Manufacturing Company, of Massachusetts. Ball-bearing	392,956	Nov. 13	1142	297	45	823
Jackson, Peter H., San Francisco, Cal. Construction of artificial stone or concrete pavements	375,999	Jan. 3	374	100 101	42	76
Jackson, Peter H., San Francisco, Cal. Floor, roof, or area covering. (Reissue)	10,921	Apr. 10	1222	328	43	246
Jackson, Robert F., and W. R. Pope, Baltimore, Md. Electric vapor-bath	380,261	Mar. 27	2070	554	42	1389
Jackson, Rolly W. (See Skinner and Jackson.)						
Jackson, Thaddeus A. (See Flynn, William, assignor.)						
Jackson, Thaddeus A., New York, N. Y. Stone-sawing machine	386,542	July 24	1796	474	44	375
Jackson, Thaddeus A., New York, N. Y. Mold for casting the teeth of diamond saws	387,644	Aug. 14	682	176	44	710
Jackson, Walter M., New York, N. Y. Gas-burner	381,378	Apr. 17	1623	433	43	332
Jackson, Walter M., New York, N. Y. Mechanism for utilizing and controlling hydro-dynamic forces	383,887	June 5	55	18	43	1131
Jackson, Walter M., New York, N. Y. Heat developer and radiator	381,365	June 12	794	207	43	1279
Jackson, Walter M., New York, N. Y. Marine propulsion	385,182	June 26	2007	515	43	1533
Jackson, Walter M., New York, N. Y. Marine propulsion	385,183	June 26	2011	515	43	1534
Jackson, Walter M., New York, N. Y. Marine propulsion	385,184	June 26	2013	516	43	1534
Jackson, Walter M., New York, N. Y. Tip for gas-burners	386,984	July 31	2459	646	44	510
Jackson, Walter M., New York, N. Y. Discharging projectiles	387,517	Aug. 7	471	124	44	665
Jackson, Walter M., New York, N. Y. Pressure-regulator for air, gas, steam, or liquids	389,082	Sept. 4	401	105	44	1149
Jackson, Walter M., New York, N. Y. Ferrule for umbrellas, &c	392,271	Nov. 6	137	34	45	620
Jackson, Walter M., assignor to Gas Consumers Benefit Company of the United States, New York, N. Y. Gas-burner	380,802	Apr. 10	751	206	43	157
Jackson, Walter M., assignor to Gas Consumers Benefit Company of the United States, New York, N. Y. Regulator for gas-burners	380,803	Apr. 10	752	206	43	158
Jackson, Walter M., assignor to Gas Consumers Benefit Company of the United States, New York, N. Y. Burner-tip	381,379	Apr. 17	1625	433	43	333
Jackson, Walter M., assignor to Gas Consumers Benefit Company of the United States, New York, N. Y. Gas tip and pillar	381,380	Apr. 17	1626	433	43	333
Jackson, Walter M., assignor to Gas Consumers Benefit Company of the United States, New York, N. Y. Gas-burner tip	386,588	July 24	1851	490	44	386
Jaco, John M., Calf Creek, Ark. Cotton-gin gang-saw cleaner	389,388	Sept. 11	89	234	44	1251
Jacob, Frank A., assignor of one-half to W. Strong, Indianapolis, Ind. Hose-coupling	377,075	Jan. 31	1962	515	42	405
Jacob, Frank A., W. M. and L. H. Levy, Indianapolis, Ind. Bank-check file	385,415	July 3	124	33	44	26
Jacobs, Abraham C., and G. W. Chapman, Hillsborough, Wis. Horse-collar	379,275	Mar. 13	594	164	42	1024
Jacobs, Henry L., and T. H. Stagg, Columbus, Ohio, assignors to F. C. Austin, Chicago, Ill. Road-scraper	393,434	Nov. 27	1831	423	45	974
Jacobs, Jacob, New York, N. Y. Illuminating-tile	377,939	Feb. 11	960	234	42	684
Jacobs, Jacob, New York, N. Y. Illuminating-tile	385,268	June 25	2152	548	43	1562
Jacobs, Jacob, New York, N. Y. Illuminating-tile	385,269	June 26	2153	548 549	43	1562
Jacobs, Jacob, New York, N. Y. Illuminating-tile and roofing-plate	385,270	June 26	2154	549 550	43	1563
Jacobs, Jacob, New York, N. Y. Illuminating tile, side wall, &c	385,271	June 26	2155	550	43	1563
Jacobs, John H. (See Bailey, John A., assignor.)						
Jacobs, Joseph. (See Reeves, Charles W., assignor.)						
Jacobs, Joseph, et al. (See Gage, Charles, assignor.)						
Jacobs, Joseph, San Francisco, Cal. Railway-tie	379,399	Mar. 13	775	209	42	1119
Jacobs, Joseph H., Atchison, Kans. Illuminated flying-target	393,435	Nov. 27	1836	483 484	45	975
Jacobs, Robert, New York, N. Y. Support for globes	386,136	July 17	1184	316	44	247
Jacobs, Thomas H., St. Louis, Mo., assignor to National Wire Hoop Company, Nashville, Tenn. Barrel, bucket, or tub	393,833	Dec. 4	143	39	45	1099
Jacobs, William E., Columbus, Ohio. Harrow	383,298	May 22	2121	559 560	43	948
Jacobs, William R., Sulphur Springs, Tex. Carriage-top prop	387,077	July 31	2587	681	44	534
Jacobs, William R., and S. C. Houston, Sulphur Springs, Tex. Gate for railway-tracks	395,056	Dec. 25	2053	530	45	1497
Jacobsen, Frederick A., Austin, Tex. Corn and cotton planter	390,678	Oct. 9	666	178	45	140
Jacobson, Peter, Milwaukee, Wis. Coupling for steam or other pipes	392,032	Oct. 30	2608	709	45	542
Jacobs, Edward. (See Johnson and Jacobs.)						
Jacobs, Pierson, Varick, N. Y. Crosscut-saw	377,521	Feb. 7	266	67	42	545
Jacobs, Pierson, Varick, N. Y. Hand-hoe	390,679	Oct. 9	667	178	45	141
Jacoby, Charles L., Minneapolis, Minn. Apron and support therefor	392,676	Nov. 13	735	186	45	740
Jacoby, Max B., and H. R. Luyties, assignors to said Luyties, A. Straus, and D. Wasserman, St. Louis, Mo. Horse-detacher	395,235	Dec. 25	2360	604	45	1550
Jacoby, William H., Minneapolis, Minn. Coat-hook	378,201	Feb. 21	1284	339	42	764
Jacques, Joseph R., Hancock, Mich. Lasting-tool	382,429	May 8	826	212	43	676
Jacques, William W., Newton, Mass. Telephony	392,033	Oct. 30	2609	709	45	542
Jacques, William W., Newton, Mass., assignor to Edison Phonograph Toy Manufacturing Company, of Maine. Combined doll and phonograph	383,299	May 22	2123	560	43	948
Jadwin, Orlando H., New York, N. Y. Cable-grip for traction-railways	388,686	Aug. 28	2274	610	44	1029
Jaeger, Gustav L., New York, N. Y. Motor	389,473	Sept. 11	1020	272	44	1274
Jaeger, Julius, Rutherford, N. J. Insect-powder gun	378,687	Feb. 28	2008	531	42	912
Jaeger's Sanitary Woolen System Company. (See Hopkins, Lewis C., assignor.)						
Jagenburg, Gustav, Rydholm, Sweden. Apparatus for dyeing	386,985	July 31	2460	646	44	510
Jagenburg, Gustav, Rydholm, Sweden. Washing-machine	390,862	Oct. 9	925	244	45	187
Jahn, Frederick G. (See Grovesteen and Jahn.)						
James, Daniel H. (See Brown and James.)						
James, David B., Visalia, Cal. Traction-engine	383,179	May 22	1943	510	43	915
James, David B., San Francisco, Cal. Cigar-holder	394,575	Dec. 18	1267	332	45	1335
James, Eli, Hudson, assignor of one-half to A. L. Miller, Livingston, N. Y. Truss	395,278	Dec. 25	2417	619	45	1562
James, George, Hebron, Nebr. Pruning implement	394,187	Dec. 11	663	178	45	1207
James, George C., Cincinnati, Ohio. Machine-gage	380,683	Apr. 10	576	158	43	125

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Div.	Vol.	Page.
James, Horace, and G. Robinson, Sheffield, county of York, England. Means for converting motion.....	379,277	Mar. 13	599	165	42	1085
James, Jack W., Cuba, Tenn. Apparatus for preventing collisions of railway-trains.....	386,403	July 17	1531	416	44	326
James, John. (See Higgins and James.)						
James, Lindorf H., Vanceburg, Ky. Churn.....	382,163	May 1	418	110	43	590
James, William, Port Pirie, South Australia. Combined buckle and spring-hook.....	382,164	May 1	419	110	43	590
James, William H. (See Saxon and James.)						
Jameson, George P. and R. B., Abingdon, Ill. Automatic grain-scale.....	395,057	Dec. 25	2060	531	45	1498
Jameson, Robert B. (See Jameson, George B. and R. B.)						
Jamieson, Augustus, Elizabeth, N. J., assignor of one-half to W. A. Lottimer, New York, N. Y. Pulverizer.....	382,364	May 8	735	{ 185 186 }	{ 43 43 }	{ 658 658 }
Jamieson, James A., Montreal, Quebec, Canada. Weight-recorder for weighing-scales.....	385,310	June 26	2216	568	43	1574
Jamieson, James A., assignor of one-fourth to F. and J. B. Caverhill, Montreal, Quebec, Canada. Safety appliance for railway-cars.....	380,630	Apr. 3	481	136	43	98
Jamieson, Percy F., Batavia, Ohio. Telegraphy.....	394,697	Dec. 18	1455	382	45	1372
Jamison, John K. (See Sheffield and Jamison.)						
Jamison, John P., Cambridgeport, Mass. Wood-working machine.....	387,418	Aug. 7	321	82, 83	44	634
Jamison, William T., Washington, Pa. Combined book and slate.....	379,469	Mar. 13	881	237	42	1140
Jancey, William L., assignor of one-half to R. Savage, Chicago, Ill. Steam confection-pan.....	391,368	Oct. 16	1665	{ 440 441 }	{ 45 45 }	{ 334 334 }
Janney, Morris P., Easton, Pa. Boiler-feeding attachment.....	383,227	May 22	2012	528	43	928
Jannopolio, Demetrius, St. Louis, Mo. Awning.....	389,749	Sept. 18	1448	379	44	1362
Janson, Louis, Brooklyn, assignor, by mesne assignments, to M. Salomon, New York, N. Y. Gage attachment for cane-shaving machines.....	378,591	Feb. 28	1867	493	42	885
Jansson, Gustave, assignor of one-half to J. P. Fitzgerald, Chicago, Ill. Apparatus for cooling candle-molds.....	380,205	Mar. 27	1996	534	42	1373
Jansch, Frederick G., New York, N. Y. Frame for fire-place fenders.....	393,112	Nov. 20	1366	356	45	873
Jaques, Ira T., assignor of one-half to C. H. Hunt, Lincoln, Nebr. Mowing-machine.....	385,354	July 3	21	7	44	6
Jaquith, Frederick P. (See Spencer and Jaquith.)						
Jarboe, Charles S., and J. McHale, Terre Haute, said McHale assignor to A. H. Tuesht and J. E. Glover, Vigo County, Ind. Hydrocarbon-burner.....	383,888	June 5	58	18	43	1132
Jarboe, Walter S., Allegheny, Pa., assignor, by mesne assignments, to National Wrapping Machine Company, of Pennsylvania. Package-wrapping machine.....	394,772	Dec. 18	1598	{ 418 419 420 }	{ 45 45 45 }	{ 1401 1401 1401 }
Jarman, Alfred J., London, England. Compound electro-motor for electric railways.....	386,543	July 24	1798	474	44	375
Jarmay, Gustav, Northwich, county of Chester, England. Separating ammonium chloride.....	386,137	July 17	1185		44	248
Jarrard, Abram, Woburn, Ill. Baling-press.....	385,355	July 3	23	7, 8	44	7
Jarrell, Edwin, Harper, Kans. Vehicle-spring.....	379,168	Mar. 6	435	123	42	1049
Jarrell, Edwin, Harper, Kans. Vehicle-spring.....	379,470	Mar. 13	882	237	42	1140
Jarrell, Edwin, Harper, Kans. Vehicle-spring.....	390,372	Oct. 2	244	66	45	51
Jarrett, George L., and J. P. Bower, Des Moines, Iowa. Reversible driving-gear for conveyers.....	393,762	Dec. 4	42	13	45	1080
Jarvis, Joseph C., Huntington, W. Va. Rotary engine.....	383,530	May 29	2485	{ 655 656 }	{ 43 43 }	{ 1020 1020 }
Jarvis, Samuel E., Lansing, Mich. Steam-engine.....	380,488	Apr. 3	264	73	43	54
Jeannot, Victor, Geneva, Switzerland. Stop-watch.....	378,592	Feb. 28	1869	494	42	885
Jeannot, Victor, Geneva, Switzerland. Lock.....	378,593	Feb. 28	1871	495	42	886
Jebb, John G., London, county of Middlesex, England. Pulley-cover.....	377,161	Jan. 31	2079	547	42	420
Jebb, William T. (See Schuman, John C., assignor.)						
Jeenel, Adolf, Breslau, Prussia, Germany. Car starter and brake.....	386,923	July 31	2375	{ 623 624 }	{ 44 44 }	{ 493 493 }
Jefferis, Albin L., and W. C. Thurman, assignors of one-fourth to J. C. Ingram, Lincoln, Cal. Rotary engine.....	380,489	Apr. 3	266	73	43	55
Jeffers, Selah, Reading, Mich. Boot or shoe.....	379,471	Mar. 13	883	238	42	1140
Jefferson, John T., assignor of one-half to G. Wells, Annapolis, Md. Loading apparatus for ordnance-cartridges.....	381,030	June 5	295	82, 83	43	1177
Jeffery, Frank M., Jersey City, N. J. Bustle.....	378,964	Mar. 6	142	{ 41 42 }	{ 42 42 }	{ 994 994 }
Jeffery, Frank M., Jersey City, N. J. Bustle.....	379,516	Mar. 13	957	258	42	1154
Jeffery, Frank M., Jersey City, N. J. Spring bed or bed-bottom.....	385,118	June 26	1921	{ 490 491 }	{ 43 43 }	{ 1516 1516 }
Jeffery, Frank M., Jersey City, N. J. Bustle.....	386,249	July 17	1359	358	44	279
Jeffery, Frank M., Jersey City, N. J., and A. Stern, New York, N. Y. Bustle.....	390,973	Oct. 9	1098	289	45	220
Jeffery, Henry, assignor to S. Fox & Co., (limited,) Stocksbridge Works, near Sheffield, county of York, England. Umbrella.....	381,139	Apr. 17	1282	343	43	266
Jeffery, Thomas B., Ravenswood, Ill. Velocipede.....	379,276	Mar. 13	595	164	42	1084
Jeffery, Thomas B., Ravenswood, Ill. Vehicle-wheel.....	383,159	May 22	1877	490	43	901
Jeffery, Thomas B., Ravenswood, Ill. Vehicle-wheel.....	383,130	May 22	1878	490	43	901
Jeffery, Thomas B., Ravenswood, Ill. Velocipede.....	383,131	May 22	1880	491	43	902
Jeffery, Thomas B., Ravenswood, Ill. Seat for velocipedes.....	384,980	June 26	1694	440	43	1469
Jeffery, Thomas B., Ravenswood, Ill. Velocipede-handle.....	385,715	July 10	574	149	44	119
Jeffery, Thomas B., Ravenswood, Ill. Velocipede.....	395,147	Dec. 25	2311	568	45	1525
Jeffrey, John H., assignor of one-third to H. Albert, Crescent City, Cal. Device for lifting goods from shelves.....	388,978	Sept. 4	251	67	44	1121
Jeffrey, Joseph A. (See Legg, Benjamin A., assignor.)						
Jeffrey, Joseph A. (See Ohorn, Benjamin, assignor.)						
Jeffrey Manufacturing Company. (See Legg, Benjamin A., assignor.)						
Jeffries, Edward W., Mount Vernon, Iowa. Combined foot-rest and kneeling-stool.....	393,472	Nov. 27	1907	{ 498 499 }	{ 45 45 }	{ 988 988 }
Jehl, Francis, Paris, France. Continuous and alternating transformer.....	379,073	Mar. 6	307	90	42	1023
Jehl, Francis, assignor to Société Anonyme Compagnie Continentale Edison, Paris, France. Dynamo-electric machine.....	376,307	Jan. 10	845	216	42	166
Jenkins, Ambrose N., Sidney, Ohio. Harness.....	383,359	May 22	2202	582	43	963
Jenkins, Elijah W., Milford, Mo. Fish-trap.....	379,701	Mar. 20	1235	329	42	1216
Jenkins, Henry S., trustee. (See Kimball, Joseph E., assignor.)						
Jenkins, James H., Thomasville, Ga. Sash-balance.....	394,698	Dec. 18	1466	383	45	1372
Jenkins, Joel, Montclair, N. J. Safety-pin.....	377,108	Jan. 31	2018	528	42	415
Jenkins, Joel, Montclair, N. J. Safety-pin.....	378,318	Feb. 21	1467	383	42	797
Jenkins, Joel, Montclair, N. J. Safety-pin.....	380,896	Apr. 10	890	240	43	184
Jenkins, John B., Pittsburg, assignor of one-half to D. S. Carroll, Allegheny City, Pa. Wire-drawing die.....	382,650	May 8	1175	303	43	744
Jenkins Live Poultry Car Company. (See Jenkins, William P., assignor.)						
Jenkins, Nicholas, Waterbury, Conn., assignor to Holmes, Booth & Haydens, New York, N. Y. Suspension device.....	376,657	Jan. 17	1339	352	42	270

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr &g	Vol.	Page.
Jenkins, Salmon F., East Braintree, Mass. Making needles.	383,733	May 29	2766	729	43	1080
Jenkins, William P., assignor to Jenkins Live Poultry Car Company, Chicago, Ill. Poultry-car.	384,913	June 19	1601	416	43	1442
Jenkinson, James, Brooklyn, N. Y. Clasp.	377,429	Feb. 7	127	27	42	518
Jenkinson, Richard C., Newark, N. J. Sheet-metal bag-handle.	381,790	Apr. 24	2323	582	43	468
Jenks, Thomas M., Chicago, Ill. Railway-signal.	381,247	Apr. 17	1436	386	43	294
Jenks, Thomas M., Chicago, Ill. Railway-freight-train signal.	383,813	May 29	2906	767	43	1105
Jenner, W. K. (See Bronner, Manly D., assignor.)						
Jenney Electric Company. (See Adams, John S., assignor.)						
Jenney Electric Company. (See Adams and Morrill, assignors.)						
Jenney Electric Company. (See Hieckley, Arthur S., assignor.)						
Jenney Electric Company. (See Morrell, Albert W., assignor.)						
Jennings, Abraham G. (See Walton, William, assignor.)						
Jennings, Abraham G., Brooklyn, N. Y. Cotton-gin.	378,167	Feb. 21	1237	325	42	751
Jennings, Benjamin F. K., assignor to J. Foos, Springfield, Ohio. Beverage shaking and mixing machine.	390,974	Oct. 9	1099	290	45	220
Jennings, Benjamin F. K., assignor to J. Foos, Springfield, Ohio. Beverage shaking and mixing machine.	391,150	Oct. 16	1363	364	45	277
Jennings, Daniel H., and W. H. Allen, Denver, Colo. Stirrup-pad.	376,526	Jan. 17	1138	298	42	232
Jennings, Nelson C., et al. (See Rafferty, William J., assignor.)						
Jennings, Oscar S., assignor of one-half to J. E. Beers, Danby, N. Y. Combined wash-bench, ironing-table, and settler.	381,471	July 24	1688	441	41	356
Jennings & Sons, A. G. (See Fryer, Richard, assignor.)						
Jennings & Sons, A. G. (See Payne, Henry B., assignor.)						
Jennings & Sons, A. G. (See Payne and Campion, assignors.)						
Jennings, William C., Camden, N. J. Portable drill.	382,472	May 8	900	229	43	689
Jennings, William H., Roberts, Fla. Car-loader.	388,494	Aug. 28	1998	537	41	978
Jennings, William H., Roberts, Fla. Mail-grab.	392,339	Nov. 6	239	61	45	640
Jensen, Andrew, St. Paul, Minn. Boot or shoe ventilator.	379,579	Mar. 20	1058	282	42	1140
Jensen, C. Louis, Milwaukee, Wis. Combined elod-crusher and land-roller.	382,612	May 8	1117	287	41	732
Jensen, Can Filling Machine Company. (See Jensen, Mathias, assignor.)						
Jensen, Carl, New York, N. Y. Preserving sausages.	388,879	Sept. 4	111		41	1071
Jensen, Carl J. B., Horsens, Denmark, assignor to C. Gärtner, Hamburg. Transfer decorations.	389,815	Sept. 18	1536		44	1380
Jensen, Hans P. F., B. W. Webb, and J. Jensen, London, county of Middlesex, England. Electric time, temperature, and burglar alarm and call-bell.	378,202	Feb. 21	1285	340	42	765
Jensen, Jens. (See Jensen, Webb, and Jensen.)						
Jensen, Jens, Racine, Wis. Grain-car door.	377,385	Feb. 7	31	9	42	501
Jensen, Jens H., Minden, Nebr. Check-row planter.	375,875	Jan. 3	195	53, 54	42	42
Jensen, John C., Chicago, Ill. Paper-fastener.	377,029	Jan. 31	1895	498	42	392
Jensen, John C., Chicago, Ill. Insertor or needle for paper-fasteners.	377,030	Jan. 31	1896	498	42	392
Jensen, John C., Chicago, Ill. Combined paper clip and punch.	377,031	Jan. 31	1897	499	42	392
Jensen, John C., Chicago, Ill. Paper-fastener.	377,032	Jan. 31	1898	499	42	392
Jensen, John C., Chicago, Ill. Paper-punch.	385,056	June 26	1834	470	43	1497
Jensen, Mathias, assignor of one-half to Jensen Can Filling Machine Company, Astoria, Oreg. Can crimper and capper.	376,804	Jan. 24	1578	413	42	325
Jensen, Paul C., Chicago, Ill. Fertilizer.	378,688	Feb. 28	2009	414	42	912
Jerome, Samuel B., New York, N. Y. Metallic railway-tie.	379,312	Mar. 13	634	177	42	1095
Jerome, Samuel B., New York, N. Y. Inkstand.	388,564	Aug. 28	2091	562	44	995
Jetter, Julius, Elizabeth, N. J. Reamer.	386,708	July 24	2018	532	41	418
Jewell, Augustus, Dowagiac, Mich. Sheaf-carrier.	379,223	Mar. 13	526	147	42	1071
Jewell Belting Company. (See Potter, Wilson L., assignor.)						
Jewell, Crews, Winter Park, Fla., assignor of three-fourths to W. S. Harbert and W. T. Rickards, Evanston, Ill. Revolving shelf.	380,897	Apr. 10	900	241	43	184
Jewell, Edwin W. (See Frenier, Joseph, assignor.)						
Jewell, Edwin W. (See Frenier, Joseph F., assignor.)						
Jewell, Harriet A., Cleveland, Ohio. Bustle.	381,140	Apr. 17	1283	313	41	296
Jewell, Harvey L., Bangor, Me. Lantern.	384,557	Apr. 24	1896	506	43	404
Jewell, Harvey L., Bangor, Me. Lantern.	389,083	Sept. 4	403	106	44	1119
Jewell, Harvey L., Bangor, Me. Lantern.	389,084	Sept. 4	404	106	41	1150
Jewell, M. Romeyn, assignor to Schlicht & Field Company, Rochester, N. Y. Suspension file-box.	380,490	Apr. 3	268	74	43	55
Jewell, M. Romeyn, assignor to Schlicht & Field Company, Rochester, N. Y. Paper-file.	384,168	June 5	485	133	43	1215
Jewell, Omar H., Chicago, Ill. Feed-water purifier.	377,386	Feb. 7	32	9	42	501
Jewell, Omar H., Chicago, Ill. Water filter and purifier.	377,387	Feb. 7	33	10	42	501
Jewell, Omar H., Chicago, Ill. Water filter and purifier.	377,388	Feb. 7	34	10	42	502
Jewell, Omar H., Chicago, Ill. Water purifier and filter.	377,389	Feb. 7	35	10, 11	42	502
Jewell, Omar H., Chicago, Ill. Feed-water purifier.	377,390	Feb. 7	37	11	42	502
Jewell, Omar H., Chicago, Ill. Apparatus for feeding chemicals to filters.	377,758	Feb. 14	616	159	42	625
Jewell Omar H., assignor to Jewell Pure Water Company, Chicago, Ill. Apparatus for purifying water.	386,073	July 10	1078	290	44	220
Jewell, Omar H., assignor to Jewell Pure Water Company, Chicago, Ill. Feed-water purifier. (Reissue.)	10,963	Oct. 16	1707	453	45	344
Jewell, Omar H., assignor of one-half to W. M. Mathisen, Chicago, Ill. Boot or shoe.	380,804	Apr. 10	753	206	43	158
Jewell Pure Water Company. (See Jewell, Omar H., assignor.)						
Jewell Pure Water Company. (See Jewell, Omar H., assignor.) (Reissue.)						
Jewell, William M., Pine, assignor, by mesne assignments, to J. A. McAnulty, Denver, Colo. and S. W. Sperry, Stockton Cal. Automatic shelf-feeder. (Reissue.)	10,933	May 29	2951	781	43	1114
Jewett, Charles C. and D. C., Sand Spring, Iowa. Hay-loader.	381,248	Apr. 17	1438	386	43	293
Jewett, Charles G., Howell, Mich. Water-heater.	334,695	June 19	1293	387	43	1382
Jewett, Charles W. and G. H., assignors to Collins Manufacturing Company, Jackson, Mich. Road-cart.	382,984	May 15	1631	427	43	843
Jewett, Charles W. and G. H., assignors of one-half to F. B. Crego, Jackson, Mich. Two-wheeled vehicle.	378,791	Feb. 23	2142	566	42	937
Jewett, Dewitt C. (See Jewett, Charles C. and D. C.)						
Jewett, George H. (See Jewett, Charles W. and G. H.)						
Jewett, George M., Bridgeport, Conn. Sheet metal chain.	377,076	Jan. 31	1963	515	42	495
Jewett, Luther K., Boston, Mass. Car-truck.	383,180	May 22	1945	510	41	115
Jewett, Luther K., Boston, Mass. Car-truck.	383,181	May 22	1946	510	43	215
Jewett, Luther K., Boston, Mass. Car-truck.	384,981	June 26	1967	411	43	1469
Jewett, Luther K., Boston, Mass. Car-truck.	384,982	June 26	1701	411	43	1779

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Jewett, Luther K., Boston, Mass. Passenger-car truck.....	368,046	Aug. 21	1292	350	44	836
Jobborn, Moses, assignor to J. H. Tilden, Hamilton, Ontario, and G. B. Underwood, Toronto, Canada. Combined latch and lock.....	377,200	Jan. 31	2131	562	42	440
Jobborn, Moses, assignor to J. H. Tilden, Hamilton, Ontario, and G. B. Underwood, Toronto, Canada. Combined latch and lock.....	379,788	Mar. 20	1361	362	42	1241
Jobes, Leslie D., Erie, Pa. Steam-heating apparatus for railway-cars.....	393,908	Dec. 4	260	70, 71	45	1121
Jocelyn, Albert H., Montclair, N. J., assignor of one-half to W. A. Armstrong, Mount Vernon, N. Y. Pocket-book.....	384,527	June 12	1031	269	43	1324
Jochum, Paul, and T. Ehrhardt, Ottweiler, Prussia, Germany. Apparatus for manufacturing artificial stone.....	387,721	Aug. 14	800	206	44	732
Johannesen, Conrad A. and S. E., Erie, Pa. Permutation-lock.....	387,729	Aug. 14	887	229	44	749
Johannesen, Svend E. (See Johannesen, Conrad A. and S. E.)						
Johanson, J. August, et al. (See Wennersten, John P., assignor.)						
John, A. Theodore, New York, N. Y. Thumb-brace for violin-players.....	389,085	Sept. 4	405	106	44	1150
Johns, Charles T., M. C. Baker, and C. D. Everett, assignors of two-fifths to S. T. Everett and W. Jones, Cleveland, Ohio. Heating apparatus.....	390,172	Sept. 25	2084	556	44	1497
Johns, David W., assignor of one-half to J. F. Belfour, Allegheny City, Pa. Saw-filing machine.....	381,249	Apr. 17	1440	387	43	295
Johns, Henry W. (See Pratt and Johns.)						
Johns, Henry W., New York, N. Y. Pipe-covering.....	385,119	June 26	1925	491	43	1516
Johns, Henry W., New York, N. Y. Filling, lining, and covering material.....	385,120	June 26	1926	491	43	1516
Johns, Henry W., New York, N. Y. Cement packing or filling.....	394,275	Dec. 11	801		45	1234
Johns, John B. and R., Massillon, Ohio. Fruit-jar.....	381,250	Apr. 17	1442	388	43	296
Johns, John H., National Military Home, Kans. Electric alarm and water-gage.....	394,401	Dec. 11	1112	289	45	1292
Johns, Robert. (See Johns, John B. and R.)						
Johns, Samuel E., assignor of one-third to A. R. Monroe, Indianapolis, Ind. Machine for gathering and collating book-signatures.....	380,898	Apr. 10	901	241	43	185
Johns, William E., et al. (See Andersson, Charles E., assignor.)						
Johnson, A. Walter. (See Johnson, William A., assignor.)						
Johnson, Albert C., Wilmington, Del. Ore-roasting furnace.....	391,151	Oct. 16	1364	{ 364 365 }	45	278
Johnson, Albert W., New Haven, Conn., assignor to Peerless Button Hole Attachment Company, of Connecticut. Embroidering attachment for sewing-machines.....	381,257	June 12	625	169	43	1250
Johnson, Albert W., New Haven, Conn., assignor to Peerless Button Hole Attachment Company, of Connecticut. Mechanical movement.....	384,258	June 12	627	169	43	1251
Johnson, Albert W., New Haven, assignor to Peerless Button Hole Attachment Company, Tyler City, Conn. Button-hole attachment for sewing-machines.....	380,573	Sept. 18	1169	307	44	1308
Johnson, Alexander, assignor of one-half to J. N. Keefer, Camillus, N. Y. Door-check.....	383,643	May 29	2636	697	43	1053
Johnson, Alfred W., New Brunswick, N. J. Running-gear for vehicles.....	384,366	June 12	796	208	43	1279
Johnson, Andrew H., and A. G. Mahaffy, Tryons, Miss. Railway-gate.....	381,361	Apr. 17	1627	434	43	333
Johnson, Andrew J. (See Lyman and Johnson.)						
Johnson, Arthur H., Jersey City, N. J. Interlocking device for railway switches and signals.....	392,734	Nov. 13	823	209	45	760
Johnson, August, et al. (See Wennersten, John P., assignor.)						
Johnson, Axel, and P. Larsson, Chicago, Ill. Door-mat.....	383,132	May 22	1882	491	43	902
Johnson, Benjamin F., Waverly, N. Y. Step-ladder.....	394,492	Dec. 11	1113	289	45	1292
Johnson Brothers & Co. (See Johnson, Hans C., assignor.)						
Johnson, Charles, New Orleans, La. Machine for washing out the fibers of plants.....	384,851	June 19	1518	395	43	1426
Johnson, Charles, assignor, by mesne assignments, to W. R. Burrage, Toronto, Ontario, Canada. Manufacture of paper pads.....	391,975	Oct. 30	2528		45	527
Johnson, Charles H., and C. Allen, Chillicothe, Iowa. Locking mechanism for railway-switches.....	382,530	May 8	988	249	43	706
Johnson, Charles R., Allegheny, and H. Johnson, Pittsburg, Pa. Detector-rail.....	377,430	Feb. 7	128	27	42	519
Johnson, Charles W. (See Pruitt, Eugene R., assignor.)						
Johnson, Charles W., Holyoke, Mass. Temperature-regulator.....	386,828	July 31	2232	587	44	466
Johnson, Daniel A., Boston, Mass. Spring-insole.....	394,188	Dec. 11	664	178	45	1207
Johnson, David, South Hampstead, county of Middlesex, England. Preparing explosives.....	376,000	Jan. 3	377		42	77
Johnson, David, and W. D. Borland, London, England. Cartridge.....	392,922	Nov. 13	1091	2-3	45	813
Johnson, Duane C., et al. (See Johnson, Elmer E., assignor.)						
Johnson, Edward H., New York, N. Y. Telephone-transmitter.....	381,382	Apr. 17	1628	434	43	333
Johnson, Edward H., assignor to Edison Electric Light Company, New York, N. Y. Incandescing electric lamp.....	393,473	Nov. 27	1908	499	45	988
Johnson, Edward S. (See Johnson, Nathan S., assignor.)						
Johnson, Edwin T., assignor of one-half to Saxton & Phillips, Minneapolis, Minn. Water-closet.....	376,744	Jan. 24	1471	388	42	305
Johnson, Edwin T., assignor of one-half to Saxton & Phillips, Minneapolis, Minn. Heating and ventilating apparatus.....	376,745	Jan. 24	1473	389	42	305
Johnson, Edwin T., assignor of one-half to Saxton & Phillips, Minneapolis, Minn. Heating and ventilating apparatus.....	376,746	Jan. 24	1475	389	42	306
Johnson, Ellery, Cincinnati, Ohio. Clasp.....	393,923	Dec. 4	368	99	45	1142
Johnson, Elmer E., assignor of two-thirds to H. L. and D. C. Johnson, Herkimer, N. Y. Lawn-mower.....	385,272	June 26	2156	550	43	1563
Johnson Ernest V., Chicago, Ill. Cable railway.....	379,648	Mar. 20	1154	305	42	1199
Johnson, Ernest V., Chicago, Ill. Brick-drying tunnel.....	381,383	Apr. 17	1631	{ 434 435 }	43	334
Jonsson, Frank C. (See Boynton and Johnson.)						
Johnson, Frank G., New York, N. Y. Clothes-sprinkler.....	380,039	Mar. 27	1767	473	42	1326
Johnson, Frank G., New York, N. Y. Upholstered furniture.....	384,259	June 12	629	169	43	1251
Johnson, Frank G., New York, N. Y. Rotating hawser-spile.....	391,152	Oct. 16	1366	365	45	278
Johnson, Frank G., New York, N. Y. Gas-governor.....	392,340	Nov. 6	240	61	45	640
Johnson, Frank G., New York, N. Y. Upholstering chairs.....	393,984	Dec. 4	368	100	45	1142
Johnson, Frank G., New York, N. Y. Portable railway-switch.....	393,985	Dec. 4	369	100	45	1142
Johnson, Frank G., New York, N. Y. Ventilator.....	394,577	Dec. 18	1268	332	45	1335
Johnson, Frank G., New York, N. Y. Upholstering chairs.....	394,578	Dec. 18	1269	333	45	1336
Johnson, Frederick C., Minneapolis, Minn. Indexed shipping-book.....	394,576	Dec. 18	1267	332	45	1335
Johnson, Garey W. (See Johnson, William and G. W.)						
Johnson, George F., Philadelphia, Pa. Press for butter and other plastic material.....	376,097	Jan. 10	522	139	42	112
Johnson, Greenleaf, Jr., Baltimore, Md. Machine for making tongue-and-groove flooring.....	393,238	Nov. 20	1546	405	45	911
Johnson, Hans C., assignor to Johnson Brothers & Co., Rhinelander, Wis. Sled-brake.....	392,341	Nov. 6	242	62	45	640
Johnson, Harry L., and W. G. Stewart, Reading, Pa.; said Stewart assignor to said Johnson. Knife-sharpener.....	386,544	July 24	1799	475	44	375
Johnson, Henry. (See Johnson, Charles R. and H.)						
Johnson, Henry, assignor to Sargeant Manufacturing Co., Newark, N. J. Swivel for bridles.....	379,537	Mar. 13	982	{ 264 265 }	42	1159
Johnson, Henry, and E. Jacobus, assignors to Sargeant Manufacturing Company, Newark, N. J. Overcheck crown-loop.....	377,308	Jan. 31	2300	608	42	470

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Johnson, Henry B., Clay Centre, Kans. Wind-wheel.....	383,467	May 29	2383	634	43	1002
Johnson, Henry B., assignor of one-half to R. Lums, Clay Centre, Kans. Car-coupling.....	388,777	Aug. 28	2407	619	44	1054
Johnson, Henry C., El Dorado, Ark. Back-band.....	382,365	May 8	736	186	43	658
Johnson, Henry J., Providence, R. I., assignor to Plumb, Burdick & Barnard, Buffalo, N. Y. Stop-motion.....	384,040	June 5	297	83	43	1177
Johnson, Herbert L., et al. (See Johnson, Elmer E., assignor.)						
Johnson, Hiram P., Bryantsville, Ky. Trace-carrier.....	389,890	Sept. 25	1672	441	44	1412
Johnson, Horace R., et al. (See Houghton, Charles E., assignor.)						
Johnson, Hubert R., Matrona, Pa. Star-finder.....	395,058	Dec. 25	2061	531 532	45	1498
Johnson, Isaac G., Spuyten Duyvil, New York, N. Y. Converter for refining molten iron.....	384,628	June 19	1183	311 312	43	1361
Johnson, Isaac L., Washington, D. C. Conduit for electric conductors and power-cables.....	375,876	Jan. 3	198	54, 55	42	42
Johnson, Iver. (See Torkelson, Reinhard T., assignor.)						
Johnson, Iver. (See Torkelson and Johnson.)						
Johnson, Iver, Worcester, Mass. Velocipede.....	379,221	Mar. 13	528	148	42	1072
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Barrel-lock for revolvers.....	379,225	Mar. 13	529	148	42	1072
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Revolver.....	379,226	Mar. 13	531	148	42	1072
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Revolver.....	379,227	Mar. 13	532	149	42	1072
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Velocipede.....	388,048	Aug. 21	1296	350	44	837
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Revolving fire-arm.....	391,153	Oct. 16	1368	365	45	278
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Revolver.....	391,154	Oct. 16	1370	365	45	278
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Breech-loading fire-arm.....	391,155	Oct. 16	1372	366	45	279
Johnson, Iver, and A. Fyrberg, Worcester, Mass.; said Fyrberg assignor to said Johnson. Revolver.....	391,156	Oct. 16	1375	366	45	279
Johnson, Iver, and O. Hanson, Worcester, Mass.; said Hanson assignor to said Johnson. Velocipede.....	388,047	Aug. 21	1294	350	44	837
Johnson, Iver, and R. T. Torkelson, Worcester, Mass.; said Torkelson assignor to said Johnson. Velocipede.....	379,228	Mar. 13	533	149	42	1073
Johnson, Iver, and R. T. Torkelson, Worcester, Mass.; said Torkelson assignor to said Johnson. Bench-plane.....	381,141	Apr. 17	1285	343	43	267
Johnson, J. Althaus, et al. (See Kearney, William F., assignor.)						
Johnson, James H., Boston, Mass. Pocket candle-case.....	386,829	July 31	2237	588	44	466
Johnson, James S. (See Lee, Robert E., assignor.)						
Johnson, Jeremiah P., Detroit, Mich. Copying-press.....	385,356	July 3	24	8	44	7
Johnson, Joe E., Waldo, Ark. Journal-box.....	392,206	Nov. 6	41	11	45	602
Johnson, John. (See Osborne and Johnson.)						
Johnson, John, Baton Rouge, La. Safety-catch for breast-pins.....	378,054	Feb. 14	1063	278	42	714
Johnson, John A., Union County, Miss. Corn-scoop.....	388,687	Aug. 28	2275	610	44	1029
Johnson, John A., Madison, Wis. Reversible cultivator-shovel.....	390,479	Oct. 2	397	101	45	82
Johnson, John A., Madison, Wis. Mold-board for plows.....	390,480	Oct. 2	398	102	45	82
Johnson, John B. (See Thomson and Johnson.)						
Johnson, John B., Salem, Ill. Clothes-drier.....	388,281	Aug. 21	1683	450	44	912
Johnson, John H., Chicago, Ill. Hose-nozzle.....	385,757	July 10	643	166	44	133
Johnson, John S., Waukon, Iowa. Compensating-clutch for corn-planters.....	376,308	Jan. 10	820	217	42	166
Johnson, Jonathan, Lowell, Mass. Steam-boiler.....	381,791	Apr. 24	2224	582 583	43	468
Johnson, Joseph W., assignor to T. Devlin & Co., Philadelphia, Pa. Meat-hook.....	386,749	July 24	2077	547	44	429
Johnson, Louis, assignor of one-fourth to Wilkin Manufacturing Company, Milwaukee, Wis. Oscillating engine.....	391,618	Oct. 23	2007	542	45	413
Johnson, Louis K., Brooklyn, N. Y. Burglar-alarm.....	392,805	Nov. 13	936	239	45	782
Johnson, Louis K., and A. A. Low, Brooklyn, assignors to Alden Type Machine Company, New York, N. Y. Type-line holder.....	386,783	July 24	2128	559	44	438
Johnson, Louis K., and A. A. Low, Brooklyn, assignors to Alden Type Machine Company, New York, N. Y. Type-distributing apparatus.....	391,798	Oct. 30	2270	615 616	45	476
Johnson, Louis K., and A. A. Low, Brooklyn, assignors to Alden Type Machine Company, New York, N. Y. Type-distributing apparatus.....	392,806	Nov. 13	937	239 240	45	782
Johnson, Louis W., Spencer, Mo. Device for teaching fractions and percentage.....	383,300	May 22	2126	560	43	948
Johnson, Luman F., Cleveland, Ohio. Device for handling heavy masses of metal.....	381,474	Apr. 17	1769	472	43	360
Johnson, Moses C., assignor to Dwight Slate Machine Company, Hartford, Conn. Lathetool.....	390,604	Oct. 2	565	150	45	114
Johnson, Moses C., assignor to A. Whitney and C. L. Barrows, Hartford, Conn. Twist-drill-milling machine.....	391,619	Oct. 23	2009	543	45	413
Johnson, Nathan S., Portland, Oreg. Washing-machine.....	377,829	Feb. 14	751	190	42	652
Johnson, Nathan S., assignor of one-half to E. S. Johnson, Mendon, Mich. Hay-loader.....	381,699	Apr. 24	2097	549	43	444
Johnson, Nelson, Knoxville, Pa. Ink-bottle.....	376,004	Jan. 3	380	101	42	77
Johnson, Orville B., St. Johnsbury, Vt. Electrical switch.....	392,031	Oct. 30	2611	709	45	543
Johnson, Osro P., assignor to H. F. White, Detroit, Mich. Stapling implement.....	391,799	Oct. 30	2275	616	45	477
Johnson, Otter, Lordsburg, N. Mex. Ter. Boot-strap gage.....	389,474	Sept. 11	1021	272	41	1274
Johnson, Philip B., administrator. (See Fehner, Samuel.)						
Johnson, Richard, Freeport, assignor to F. C. Austin, Chicago, Ill. Making metal vises.....	394,540	Dec. 11	1194	311	45	1307
Johnson, Robert H., Chattanooga, Tenn. Cutting-nippers.....	377,759	Feb. 14	617	160	42	626
Johnson, Robert M., Mount Holly, N. J. Nut-lock.....	377,307	Jan. 31	2299	608	42	470
Johnson, Samuel H., and C. C. Hutchinson, Stratford, county of Sussex, England. Apparatus for forcing fluids and semi-fluids by means of compressed air.....	393,011	Nov. 20	1232	320	45	847
Johnson, Samuel M., assignor of one-half to York Manufacturing Company, Saco, Me. Chained yarn doubling and splitting machine.....	378,398	Feb. 21	1576	413 414	42	819
Johnson, Sarah C. (See Winter, Caroline H., assignor.)						
Johnson Steel Street Rail Company. (See Colley, Frederick, assignor.)						
Johnson Steel Street Rail Company. (See Du Pont, Alfred V., assignor.)						
Johnson Steel Street Rail Company. (See Entwisle, Edward B., assignor.)						
Johnson Steel Street Rail Company. (See Lloyd, Charles F., assignor.)						
Johnson Steel Street Rail Company. (See Simpson, Edward, assignor.)						
Johnson Steel Street Rail Company. (See Street, Clement F., assignor.)						
Johnson Steel Street Rail Company. (See Welch, Robert W., assignor.)						
Johnson, Theodore. (See Webb and Johnson.)						
Johnson, Victor D., and V. Oppelt, Mount Pleasant, Iowa. Farm-gate.....	382,703	May 15	1253	327	43	768
Johnson, Warren C., Oskaloosa, Iowa. Coal-drill.....	391,157	Oct. 16	1376	366	45	260



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette	
			Spec.	Dr. g.	Vol.	Page.
Johnson, Warren S., Milwaukee, Wis. Automatic temperature-regulator .....	378,137	Feb. 21	1195	{ 311 312 136 137 }	{ 42 42 42 42 }	{ 747 1057 500 1100 }
Johnson, Warren S., Milwaukee, Wis. Temperature-regulating system .....	379,201	Mar. 6	479	110	43	500
Johnson, Warren S., Milwaukee, Wis. Automatic temperature-regulator .....	382,165	May 1	420	110	43	500
Johnson, Warren S., assignor of one-half to W. Plankinton, Milwaukee, Wis. Elevator .....	393,834	Dec. 4	145	39, 40	45	1100
Johnson, Wilbur T., et al. (See Miller, William G., assignor.) .....	384,169	June 5	483	134	43	1215
Johnson, William and G. W., Portland, Oreg. Amalgamator .....	377,760	Feb. 14	618	160	42	626
Johnson, William, Jr. (See Tangye and Johnson.) .....						
Johnson, William A., Toronto, Ontario, Canada. Electric-light-circuit cut-off switch .....	390,481	Oct. 2	399	102	45	82
Johnson, William A., Bangor, Me. Paint-vehicle .....	393,763	Dec. 4	43		45	1080
Johnson, William A., Aurora, Ill., assignor of one-half to A. W. Johnson, Council Bluffs, Iowa. Fire-bolter and cutter .....	388,778	Aug. 28	2408	649	44	1054
Johnson, William H., Racine, assignor to Elastic Nut Company, Milwaukee, Wis. Nut-making machine .....	380,393	Apr. 3	129	39	43	28
Johnson, William H., assignor of one-half to J. McMurray, Delhi, N. Y. Harness-ring with shield or rider .....	392,272	Nov. 6	138	34, 35	45	620
Johnson, William M., et al. (See Miller, William G., assignor.) .....						
Johnson, William P., et al. (See Williams, William P., assignor.) .....						
Johnson, Willie A., et al. (See Carlson, Charles A., assignor.) .....						
Johnson, Willie A., et al. (See Class, William F., assignor.) .....						
Johnson, Willis H., assignor of one-half to C. A. Orr and H. L. Ide, Springfield, Ill. Friction-clutch .....	394,367	Dec. 11	946	{ 248 249 }	{ 45 45 }	{ 1262 1262 }
Johnston, Allen, Ottumwa, Iowa. Cutlery-grinding machine .....	377,201	Jan. 31	2132	563	42	440
Johnston, Allen, Ottumwa, Iowa. Grinding cutlery .....	377,202	Jan. 31	2136	564	42	441
Johnston, Allen, Ottumwa, Iowa. Ruffling attachment for sewing-machines .....	392,035	Oct. 30	2613	710	45	543
Johnston, Allen, Ottumwa, Iowa. Machine for polishing sheet metal .....	392,036	Oct. 30	2615	710	45	544
Johnston, Columbus. (See Johnston, Sylvester T. and C.) .....						
Johnston, Edward P., Decatur, Ala. Air-ship .....	383,889	June 5	59	18, 19	43	1132
Johnston, Edward P., Washington, D. C. Car-coupling .....	394,368	Dec. 11	949	249	45	1262
Johnston, Edward P., Washington, D. C. Fertilizer-distributor .....	394,369	Dec. 11	951	249	45	1263
Johnston, George, Detroit, Mich. Spectacle-bridge .....	384,260	June 12	630	170	43	1251
Johnston, Gustaf, Denver, Colo. Baling-press .....	376,527	Jan. 17	1138	298	42	233
Johnston Harvester Company. (See Cooley, Orrville, assignor.) .....						
Johnston, James. (See Donovan, Hazlett, and Johnston.) .....						
Johnston, James J., Columbiana, Ohio, assignor to H. M. Myers, Beaver Falls, Pa. Making blanks for shovels .....	385,808	July 10	719	{ 184 185 186 }	{ 44 44 44 }	{ 146 147 147 }
Johnston, James J., Columbiana, Ohio, assignor to H. M. Myers, Beaver Falls, Pa. Making blanks for shovels, &c. .....	385,809	July 10	711	{ 185 186 186 }	{ 44 44 44 }	{ 147 147 147 }
Johnston, James J., Columbiana, Ohio, assignor to H. M. Myers, Beaver Falls, Pa. Blank for shovels .....	385,810	July 10	712	186	44	147
Johnston, James J., Columbiana, Ohio, assignor to H. M. Myers, Beaver Falls, Pa. Machine for cutting and splitting shovel-blanks .....	385,811	July 10	713	186	44	147
Johnston, John M., New Albany, Kans. Corn-planter .....	386,016	July 10	1001	266	44	205
Johnston, Joseph, Austin, Ill. Weather-strip .....	3-7,078	July 31	2587	613	41	531
Johnston, Lysander, assignor of one-half to R. A. Riviere, Tyler, Tex. Grocer's bin .....	391,276	Dec. 11	802	281	45	1234
Johnston, Sylvester T., St. Louis, and C. Johnston, Clarksville, Mo. Plow and pulverizer .....	381,142	Apr. 17	1286	341	43	267
Johnston, T. Ruddiman, Edinburgh, Scotland. Ink-mill .....	383,576	May 29	2541	671	43	1032
Johnston, William, Pittsburgh, Pa. Propelling device .....	381,625	Apr. 24	1996	524	43	423
Johnstone, Alice, Avondale, N. J. Combined bracelet and button-hook .....	393,239	Nov. 20	1548	405	45	911
Johnstone, Alice, Avondale, N. J. Bracelet .....	395,148	Dec. 25	2212	568	45	1525
Johnstone, James S., Portland, Oreg. Machine for soldering cylindrical cans .....	383,301	May 22	2127	561	43	949
Johnstone, Silas. (See Wells and Johnstone.) .....						
Johnstone, William H. (See Hart and Goodfellow, assignors.) .....						
Jolly, Benjamin R., Raleigh, N. C. Trigger mechanism for guns .....	383,814	May 29	2908	{ 767 768 768 }	{ 43 43 43 }	{ 1105 1105 1105 }
Jolly, Bertie P., Soledad, Cal. Animal-trap .....	375,822	Jan. 3	131	38	42	30
Jolly, William. (See Sears, Thomas H., assignor.) .....						
Jonas, Heinrich, and C. Hirsch, Dresden, Saxony, Germany. Horseshoe .....	382,040	May 1	249	64	43	559
Jonas, Moritz, New York, N. Y. Cigar-package .....	393,113	Nov. 20	1367	356	45	874
Jonas, Louis, Lewiston, Me. Machine for setting lacing-studs .....	379,702	Mar. 20	1236	329	42	1216
Jones, Ahira, East Bethlehem, Pa. Fence-machine .....	391,897	Oct. 30	2412	653	45	504
Jones, Albert F., assignor of one-half to J. H. Poor, Salem, Mass. Tannery-hoist .....	375,938	Jan. 3	289	78	42	60
Jones, Alexander, Racine, Wis. Roofing fabric .....	385,057	June 26	1835	470	43	1497
Jones, Alonzo B., assignor of one-half to L. Jones, Jeffersonville, Ind. Folding table .....	390,173	Sept. 25	2086	556	44	1497
Jones, Augustus H. (See Peck, Eugene H., assignor.) .....						
Jones, Augustus H., Meriden, Conn. Double-acting latch .....	381,792	Apr. 24	2226	583	43	468
Jones, Augustus H., Meriden, Conn. Latch .....	384,895	June 19	1519	395	43	1427
Jones, Augustus H., and E. H. Peck, Meriden, Conn. Mirror-pivot .....	383,468	May 29	2384	634	43	1002
Jones, Cad. (See Commander, Miles, assignor.) .....						
Jones, Charles H. (See Jones, Robert, assignor.) .....						
Jones, Charles L. (See Talt and Jones.) .....						
Jones, Charles S., Yates Centre, Kans. Machine for excavating .....	384,041	June 5	299	83, 84	43	1177
Jones, Charles W., Junction, Va. Frogless switch .....	394,118	Dec. 4	556	149	45	1177
Jones, Clarence B. (See Haldeman, Charles D., assignor.) .....						
Jones, Daniel T., assignor of one-half to A. N. Hill, Waterbury, Dak. Ter. Sulky attachment for walking-plows .....	389,705	Sept. 18	1385	362	44	1348
Jones, David, assignor of one-half to W. C. Williams, Paris, Tenn. Evaporating-pao .....	392,864	Nov. 13	1018	{ 260 261 }	{ 45 45 }	{ 799 799 }
Jones, Dudley E. (See Sailor, David A., assignor.) .....						
Jones, Edmund, Cold Spring Harbor, N. Y. Micrometer-scale .....	386,589	July 24	1856	490	44	387
Jones, Edmund C., assignor of one-half to W. J. Gleason, San Francisco, Cal. Coin-actuated billiard-marker .....	383,228	May 22	2013	{ 528 529 }	{ 43 43 }	{ 928 928 }
Jones, Edward C., Kansas City, Mo., assignor of one-half to R. Hirtz, Dodge City, Kans. Clasp .....	379,229	Mar. 13	535	149	42	1073
Jones, Edward C., Kansas City, Mo., assignor of one-half to R. Hirtz, Dodge City, Kans. Inkstand .....	392,342	Nov. 6	242	62	45	640
Jones, Edward C., Hamilton, Ontario, assignor to J. D. Smith, Townsend Centre, and W. Lutes, Waterford, county of Norfolk, Canada. Wire fence .....	394,773	Dec. 18	1602	421	45	1402
Jones, Edward J., Richmond, county of Surrey, England. Corset-stay .....	376,035	Jan. 3	433	115	42	87
Jones, Eli, Valley Springs, Dak. Ter. Punching and shearing machine .....	389,655	Sept. 18	1314	343	44	1334
Jones, Fleetwood C. (See Culverson, John L., assignor.) .....						
Jones, Francis W., New York, N. Y. Dynamo telegraphy .....	381,251	Apr. 17	1443	388	43	296
Jones, Francis W., New York, N. Y. Dynamo telegraphy .....	381,839	Apr. 24	2312	601	43	484

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Jones, Frank A., New York, N. Y. Manufacturing boxes.....	386,074	July 10	1080	290	41	221
Jones, Frank M. (See Griffin, William, assignor.)						
Jones, Frederick N., Leeds, county of York, England, assignor to W. S. Lamson, Lowell, Mass. Retarding-tube for cash-carriers.....	391,051	Oct. 16	1231	327	45	253
Jones, George. (See Schardt and Jones.)						
Jones, George, assignor to himself and A. Swadkins, Chicago, Ill. Separator.....	391,850	Oct. 30	2347	637	45	490
Jones, George R. G., Louisville, Ky. Curtain-fixture.....	391,369	Oct. 16	1666	441	45	335
Jones, George S., Laconia, Ind. Combined saw filer, gage, and gummer.....	377,677	Feb. 7	491	127	42	588
Jones, Gilbert E., New York, N. Y. Quoin.....	377,618	Feb. 7	403	101	42	372
Jones, Gilbert E., New York, N. Y. Quoin.....	377,619	Feb. 7	404	102	42	372
Jones, Gilbert E., New York, N. Y. Quoin.....	377,620	Feb. 7	405	102	42	373
Jones, Harry H., Lancaster, N. H. Compressor.....	376,598	Jan. 17	1233	321	42	252
Jones, Henry, assignor to M. D. Shipman, De Kalb, Ill. Button-setting machine.....	391,579	Dec. 18	1274	333	45	1336
Jones, Henry M., assignor of one-half to C. A. Benkelman, Denver, Colo. Fire-escape.....	391,536	Oct. 23	1897	509	45	390
Jones, Henry W. Ottawa, Ill. Two-wheeled vehicle.....	383,229	May 22	2016	520	43	929
Jones, Isaac N., and P. C. Elser, Dupont, Ohio. Adjustable chimney.....	377,799	Feb. 14	846	216	42	671
Jones, James F., Elsinore, Cal. Alphabetical toy puzzle and advertising device.....	390,781	Oct. 9	817	217	45	168
Jones, James H., assignor to Emerson, Talcott & Company, Rockford, Ill. Corn-planter.....	376,823	Jan. 24	1606	421	42	329
Jones, James H., assignor to Emerson, Talcott & Company, Rockford, Ill. Horse hay-rake.....	379,295	Mar. 20	1553	409	42	1276
Jones, James H., assignor to Emerson, Talcott & Company, Rockford, Ill. Divider for mowing-machines.....	380,900	Apr. 10	904	242	43	185
Jones, John A., Tuscarora, Nev. Concentrator.....	394,654	Dec. 18	1395	364	45	1358
Jones, John E., New York, N. Y. Window frame and sash.....	376,959	Jan. 24	1794	471	42	365
Jones, John H., Manchester, county of Lancaster, England. Sash-cord fastener.....	381,018	Apr. 10	1081	286	43	218
Jones, John J. (See Wesemann, Dietrich, assignor.)						
Jones, John M., Palmyra, N. Y. Printing-press.....	379,958	Mar. 27	1644	438	42	1303
Jones, John T., Iron Mountain, Mich. Blank for railway-spikes.....	386,404	July 17	1583	416	41	327
Jones, John T., Iron Mountain, Mich., assignor of one-half to P. L. Kimberly, Sharon, Pa. Machine for making nails and spikes.....	586,405	July 17	1584	417	44	327
Jones, John T., Iron Mountain, Mich., assignor of one-half to P. L. Kimberly, Sharon, Pa. Manufacture of railway-spikes.....	386,406	July 17	1585	417	44	327
Jones, John W., Shoreditch, county of Middlesex, and E. K. Bridger, London, England. Boot or shoe.....	382,985	May 15	1632	427	43	843
Jones, Joseph M., Paris, Ky. Gummed paper-fastener.....	382,813	May 15	1397	367	43	797
Jones, Lee. (See Jones, Alonzo B., assignor.)						
Jones, Lewis, Jr., Overbrook, Pa. Latch-opener for knitting-machines.....	386,636	July 24	1912	506	44	399
Jones, Lorenzo D., assignor of one-half to G. Nicholl, Kenosha, Wis. Overdraw check-loop.....	391,370	Oct. 16	1668	441	45	335
Jones, Louis D., assignor of one-half to W. E. Shaw, Chicago, Ill. Bell-striking mechanism.....	387,079	July 31	2588	682	44	535
Jones, Lyman M., Johnson, Vt. Fishing-reel signal.....	380,299	Apr. 10	903	242	43	185
Jones, Mary P., Mineral City, Tex. Baby-jumper.....	382,814	May 15	1398	367	43	797
Jones, Morris. (See Falkenberg and Jones.)						
Jones, Owen H. (See Birkery, Cornelius, assignor.)						
Jones, Philip. (See Edwards, Lewis, and Jones.)						
Jones, Richard W., Syracuse, N. Y. Harness-rosette attachment.....	382,880	May 15	1489	390	43	817
Jones, Robert, assignor of one-half to C. H. Jones, Waynesburg, Ohio. Mold-board.....	378,841	Feb. 28	9241	597	42	956
Jones, Robert J., Carrollton, Wash. Terr. Feathering paddle-wheel.....	384,367	June 12	798	208	43	1279
Jones, Robert N. (See Coffin, Charles E., assignor.)						
Jones, Robert V., Mount Union, Ohio. Meat-cutter.....	391,322	Oct. 16	1602	424	45	323
Jones, Susan, Oxford, Miss. Trunk-lid support.....	387,886	Aug. 14	1031	271	41	777
Jones, Thomas, Danville, Pa. Sash-balance.....	380,805	Apr. 10	754	206	43	158
Jones, Thomas, Ravenswood, Ill. Finish for plastered walls.....	383,397	May 22	2263	437	43	973
Jones, Thomas C., Lynchburg, Va. Reheating-furnace.....	382,996	May 15	1633	427	43	843
Jones, Thomas C., Lynchburg, Va. Puddling-furnace.....	389,574	Sept. 18	1173	308	44	1309
Jones, Thompson H. (See Brosius, John M., assignor.) (Reissue.)						
Jones, W. C., et al. (See Hopson, Franklin O., assignor.)						
Jones, Walter R., Rome, Italy. Furnace.....	389,575	Sept. 18	1175	308	44	1309
Jones, Wesley C., Waxahachie, Tex. Spring-punch.....	378,549	Feb. 28	1805	477	42	873
Jones, Wiley, Norfolk, Va. Boot or shoe stretcher.....	375,339	Jan. 3	291	78	42	60
Jones, William. (See Becroft, Walter, assignor.)						
Jones, William, et al. (See Johns, Baker, and Everett, assignors.)						
Jones, William F. (See Stanley and Jones.)						
Jones, William R., Braddock, Pa. Appliance for rolls.....	382,701	May 15	1254	328	43	768
Jones, William R., Braddock, Pa. Housing-cap for rolls.....	383,056	May 15	1762	455	43	869
Jones, William R., Braddock, Pa. Apparatus for removing and setting rolls.....	385,058	June 26	1837	470	43	1497
Jones, William R., Braddock, Pa. Roll-housing.....	388,049	Aug. 21	1298	351	44	837
Jones, Willis C., and W. S. Rogers, Cincinnati, Ohio. Feed for lathes.....	377,761	Feb. 14	619	160	42	626
Jones, Willis C., and W. S. Rogers, Cincinnati, Ohio. Friction-clutch.....	378,448	Feb. 28	1666	437	42	843
Jones, Willis C., and W. S. Rogers, Cincinnati, Ohio. Lathe.....	379,313	Mar. 13	655	177	42	0095
Jones, Willis C., and W. S. Rogers, Cincinnati, Ohio. Transmitting motion.....	387,235	Aug. 7	53	12	44	582
Jones, Woodruff & Co. (See Shaffer, Charles H., assignor.)						
Jopson, George W. (See Crandall, Nathan W., assignor.)						
Jopson, George W., and N. W. Crandall, Meriden, Conn. Blacking-box holder.....	375,823	Jan. 3	132	38	42	31
Jordan, Edmund, Brooklyn, assignor to M. H. Cashman, New York, N. Y. Making barbed fencing.....	389,154	Sept. 4	539	135	44	1172
Jordan, Edmund, and J. H. Templin, assignors to M. H. Cashman, Brooklyn, N. Y. Machine for making barbed fencing.....	390,975	Oct. 9	1100	290	45	220
Jordan, James J., New York, N. Y. Shoe.....	381,929	May 1	42	12	43	524
Jordau, James J., Syracuse, N. Y. Shoe.....	381,930	May 1	43	12	43	523
Jordan, Llewellyn E., Buffalo, N. Y. Furnace-door.....	387,419	Aug. 7	323	81	44	035
Jordan, Oswald F., St. Thomas, Ontario, Canada. Railway-frog.....	395,149	Dec. 25	2213	568	45	1525
Jordan, William A., New Orleans, La. Nut-lock.....	378,008	Feb. 14	1004	262	42	703
Jordan, William A., New Orleans, La. Bolt-lock.....	384,206	June 5	543	119	43	1226
Jordan, William A., New Orleans, La. Nut-lock.....	389,843	Sept. 18	1575	417	44	1387
Jørgensen, Alfred, Helsingfors, Finland, Russia. Velocipede.....	387,166	July 31	2727	716	41	558
Jørgensen, Charles P. (See Hansen, Andrew, assignor.)						
Jørgensen, Simon J. E., Lauget, near Risø, Norway. Combined water-tank and life-boat.....	384,579	June 12	1103	290	43	1338
Joseph, Frank A., Malden, Mass. Strap for rubber boots.....	384,914	June 19	1604	417	43	1442

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Joseph, Isaac, No. 6 Kennington Park Road, county of Surrey, England. Indicating mechanism for barometers or other instruments.....	389,967	Sept. 25	1772	470	44	1434
Josett, Frank, Lima, Ohio. Tool for cutting tapering or irregularly-shaped holes.....	389,389	Sept. 11	900	235	44	1251
Joslin, M. J., <i>et al.</i> (See Joslin, William C., assignor.)						
Joslin, William C., assignor of one-half to S. Parkhurst and M. J. Joslin, Putnam, Conn. Axle-lubricator.....	389,929	Sept. 25	1727	457	44	1424
Joslin, William E., South Scituate, R. I. Electric insulator-peg.....	386,986	July 31	2461	646	44	510
Joslyn, Margaret M., Grand Meadow, Minn. Soot-collector for gasoline-stoves.....	378,508	Feb. 28	1747	461	42	861
Josselyn, John A., Brookfield, Mass. Machine for splitting scrap-leather.....	381,075	Apr. 10	1178	313	43	237
Jowett, Kershaw, Bradford, England. Lag for pattern-chains of looms.....	386,472	July 24	1689	445	44	356
Joy, Frank L., Chicago, Ill., assignor of one-half to W. S. Hay, Huron, Dak. Ter. Hop-per-bottom freight-car.....	380,287	Mar. 27	2104	563	42	1395
Joy, Thaddens C., Titusville, Pa. Steam-radiator.....	390,128	Sept. 25	2018	538	44	1484
Joyce, Hanson B., Everett, Mass. Seine-boat.....	393,158	Nov. 20	1428	372	45	886
Joyce, Jacob O., Dayton, Ohio. Telescopic jack.....	389,475	Sept. 11	1022	273	44	1274
Joyce, Jacob O., Dayton, Ohio. Screw-jack.....	390,605	Oct. 2	565	150	45	114
Joyce, John T., Plainville, Mass. Pendant-setting.....	384,629	June 19	1184	312	43	1361
Joyce, Joseph L., New Haven, Conn. Last.....	387,593	Aug. 7	610	{ 158 159 }	44	689
Joyner, William C., <i>et al.</i> (See Pope, James M., assignor.)						
Judd & Company, H. L. (See Stone, Thomas D., assignor.)						
Judd, E. C., <i>et al.</i> (See Coy, Frederick W., assignor.)						
Judd, Edward H., <i>et al.</i> (See Long, George S., assignor.)						
Judd, Fred W., Cleveland, Ohio, assignor to Avery Elevator Bucket Company, of Ohio. Bushing for openings in sheet-metal vessels.....	393,333	Nov. 20	1688	446	45	938
Judd, Fred W., Cleveland, Ohio, assignor to Avery Elevator Bucket Company, of Ohio. Bushing for openings in sheet-metal vessels.....	393,334	Nov. 20	1690	446	45	939
Judd, Wyllys W., Hartford, Conn. Paper barrel.....	395,236	Dec. 25	2361	604	45	1550
Judge, James L., Kenosha, Wis. Air-valve for radiators.....	394,860	Dec. 18	1751	454	45	1429
Judge, Levi, Olean, N. Y. Wood-working machine.....	392,343	Nov. 6	244	62, 63	45	640
Judson, Charles W., assignor to Eagle Lock Company, Terryville, Conn. Machine for making sheet-metal blanks.....	383,302	May 22	2129	{ 561 562 }	43	949
Judson, Henry P., Boston, Mass. Refrigerator.....	391,620	Oct. 23	2011	544	45	414
Judson, John S. (See Cameron and Judson.)						
Judson, Thomas S., Matteawan, assignor to New York Rubber Company, New York, N. Y. Rubber hose.....	375,877	Jan. 3	201	55	42	43
Judson, Willard S. (See Cameron and Judson.)						
Judy, Charles S., and M. W. Forbes, Miamisburg, Ohio. Combined sofa and surgical table.....	385,311	June 26	2217	568	43	1574
Juge, Pierre A., Napoleonville, La. Car-coupling.....	386,203	July 17	1269	339	44	264
Julian, George W. (See McMullin, Joseph, assignor.)						
Julien, Edmond, Brussels, Belgium. Apparatus for electric traction.....	384,580	June 12	1105	{ 291 292 293 }	43	1339
Julien, Edmond, Brussels, Belgium. Electric railway-car.....	384,581	June 12	1110	{ 293 294 }	43	1339
Julien, Edmond, Brussels, Belgium, assignor to Julien Electric Company, New York, N. Y. Regulating-commutator for secondary batteries.....	384,447	June 12	905	236	43	1301
Julien Electric Company. (See Julien, Edmond, assignor.)						
Julig, Leopold, and E. Ewald, San Francisco, Cal. Explosive engine.....	387,167	July 31	2728	716	44	558
Julit, Orange, Orangeville, Ontario, Canada. Snow-plow.....	393,240	Nov. 20	1549	406	45	911
Jung, J. George, <i>et al.</i> (See Thomas, Conrad, assignor.)						
Jung, Otto, Jersey City, N. J. Machine for grinding spherical bodies.....	392,435	Nov. 6	382	94	45	666
Jungbluth, William, Milwaukee, Wis. Heel-protector for overshoes.....	393,372	Nov. 27	1748	463	45	958
Jungbluth, Arthur, Schramberg, Württemberg, assignor to Gebr. Stollwerck, Cologne-on-the-Rhine, Germany. Apparatus for automatically delivering goods.....	392,037	Oct. 30	2618	{ 711 712 }	45	544
Jungbluth, Arthur and H. E., Schramberg, Württemberg, Germany. Clock.....	381,626	Apr. 24	1997	524	43	424
Jungbluth, Heinrich E. (See Jungbluth, Arthur and H. E.)						
Jungk, Franz, <i>et al.</i> (See Hirschling, Henry, assignor.) (Reissue.)						
Jungkarth, Samuel B., Philadelphia, Pa. Hot-air flue.....	388,364	Aug. 21	1821	483	44	936
Junkin, Joseph M., Red Oak Junction, Iowa. Filing papers.....	385,758	July 10	644	167	44	133
Jürgens, Eduard, assignor to O. Steinle, Quedlinburg-on-the-Harz, Prussia, Germany. Thermometer.....	395,279	Dec. 25	2418	620	45	1562
Jurschina, Franz, assignor of one-half to F. Kammann, Vienna, Austria-Hungary. Self-hardening cement.....	379,580	Mar. 20	1059		42	1181
Jury, Theodore. (See Schermerhorn and Jury.)						
Just, A. L., <i>et al.</i> (See Clouse, Joseph N., assignor.)						
Just, John A., Syracuse, N. Y. Apparatus for making chlorine.....	391,158	Oct. 16	1377	367	45	280
Just, John A., Syracuse, N. Y. Making chlorine.....	391,159	Oct. 16	1380	{ 367 368 }	45	280
Just, John F., Robey, Dak. Ter. Cable railway.....	379,169	Mar. 6	436	123	42	1049
Justi, H. D. (See Stuck, Levi, assignor.)						
Justi, Henry D., Philadelphia, Pa. Dental or other chairs.....	382,473	May 8	902	230	43	689
Justice & Co., Philip S. (See Hampton and Facer, assignors.)						
Jutson, Charles J., and F. A. Poupard, London, England. Horseshoe.....	393,835	Dec. 4	147	40	45	1100
Kaczander, Leopold. (See Ruddy and Kaczander.)						
Kadow, Herman, Newark, N. J. Catch for bags.....	394,861	Dec. 18	1752	454	45	1429
Kaemp, Reinhold H. (See Nagel, Kaemp, and Linmenbrügge.)						
Kaestner, Charles, Chicago, Ill. Ore-crusher.....	377,459	Feb. 7	166	38, 39	42	527
Kaestner, Charles, Chicago, Ill. Apparatus for mashing grain.....	394,370	Dec. 11	953	250	45	1263
Kadlenberger, Gustav, Hamilton, Ohio. Paper-machine frame.....	389,576	Sept. 18	1177	309	44	1310
Kahler, Conrad, <i>et al.</i> (See Brookes, Leonard E., assignor.)						
Kahler, Conrad, and L. E. Brookes, Chicago, Ill. Paper-feeding and cutting device.....	380,288	Mar. 27	2105	563	42	1395
Kahler, Conrad, and L. E. Brookes, assignors to themselves and J. J. Kahler, Chicago, Ill. Operating mechanism for type-beds of cylinder printing-machines.....	388,050	Aug. 21	1300	351	44	837
Kahler, John J. (See Kahler and Brookes, assignors.)						
Kahler, John J., <i>et al.</i> (See Brookes, Leonard E., assignor.)						
Kahler, William, Drummond, Wis., assignor of one-half to I. Swabacker, Chicago, Ill. Apparel-cuff.....	386,637	July 24	1913	506	44	399
Kahler, William, Drummond, Wis., assignor of one-half to I. Swabacker, Chicago, Ill. Apparel-cuff.....	387,790	Aug. 14	888	229	44	749
Kahn, Amelia, St. Joseph, Mo. Eyeglasses.....	380,491	Apr. 3	269	74	43	55
Kahn, Amelia, St. Joseph, Mo. Eyeglasses.....	382,987	May 15	1634	428	43	844
Kahn, Jacob, Cleveland, Ohio. Street-car motor.....	385,631	July 3	449	116	44	87
Kail, William, Rush, Ohio. Nut-lock.....	388,051	Aug. 21	1394	352	44	839

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Kaiser, Rudolph, Annapolis, Md. Household sifter.....	394,862	Dec. 18	1753	454	45	1429
Kakas, William F. (See Bradford, Charles K., assignor.)						
Kalbaugh, I. N. (See Manning, William T., assignor.)						
Kalbfleisch, Albert M., et al. (See Knowles, Edward R., assignor.)						
Kaldenberg, Frederick J., Tarrytown, N. Y. Pistol-stock.....	391,473	Oct. 23	1817	486	45	372
Kalinski, Achilles, E. Crippen, and M. T. Cashen, assignors to said Kalinski, Crippen, and J. Schwartz, New Orleans, La. Combined water-tower, extension-ladder, and fire-escape.)	387,887	Aug. 14	1031	{ 271 272 }	44	777
Kaltenbach, Henry. (See Borchani, Robert G., assignor.)						
Kamerer, John H., Lake, Ohio. Combined cane and chair.....	382,308	May 8	642	163	43	642
Kames, Joshua, Philadelphia, Pa., assignor, by mesne assignments, to National Electric Conduit Company, Camden, N. J. Metallic connector for electric railways.....	393,012	Nov. 20	1234	320	45	847
Kames, Joshua, Philadelphia, Pa., assignor, by mesne assignments, to National Electric Conduit Company, Camden, N. J. Conduit for electric conductors.....	393,013	Nov. 20	1236	321	45	848
Kamman, George H., Champaign, Ill. Grain-meter.....	384,983	June 26	1703	442	43	1471
Kamman, George H., assignor of one-half to M. Bongart, Champaign, Ill. Shaft-support.....	392,923	Nov. 13	1093	283	45	873
Kammann, Franz. (See Jurschina, Franz, assignor.)						
Kampfe, Frederick, R., and O., Brooklyn, N. Y. Safety-razor.....	385,462	July 3	193	50	44	38
Kampfe, Frederick, R., and O., Brooklyn, N. Y. Safety-razor.....	387,359	Aug. 7	235	61	44	617
Kampfe, Otto. (See Kampfe, Frederick, R., and O.)						
Kampfe, Richard. (See Kampfe, Frederick, R., and O.)						
Kanable, Byron, Marion, Ohio. Cream-testing churn.....	392,865	Nov. 13	1019	261	45	799
Kanaley, Edward, Syracuse, N. Y. Hot-air furnace.....	377,561	Feb. 7	317	81	42	556
Kane, Abraham L., Middle Fork, Ohio. Hay-derrick.....	380,206	Mar. 27	1998	534	42	1373
Kane & Company, Thomas. (See Goodrich, Harry C., assignor.)						
Kane, Daniel P., St. Louis, Mo. Reversing device for engines.....	376,658	Jan. 17	1342	352	42	271
Kane, John, Green Isle, Minn. Blackboard and wiping and dust-collecting apparatus.....	382,705	May 15	1255	328	43	769
Kane, John H., Huntington, W. Va. Apparatus for making drills.....	380,577	Apr. 3	410	117	43	84
Kane, Louis E., Cincinnati, Ohio. Millstone-feeder.....	377,762	Feb. 14	621	160	42	626
Kane, Maurice, Chicago, Ill. Harvester.....	392,807	Nov. 13	941	240	45	782
Kapp, A. Joseph, assignor to E. A. Kapp, New York, N. Y. Bath-tub.....	393,335	Nov. 20	1691	446	45	939
Kapp, Ellen A. (See Kapp, A. Joseph, assignor.)						
Kapp, Gisbert. (See Crompton and Kapp.)						
Karges, Robert, assignor to H. Froling, Brunswick, Prussia, Germany. Pea-shelling machine.	382,988	May 15	1635	428	43	844
Karicofe, William H., Martinsburg, W. Va. Corn-harvester.....	385,632	July 3	451	{ 116 117 }	44	88
Karn, Edwin B., Britton, Dak. Ter. Roller-tension for self-binders, &c.....	395,059	Dec. 25	2063	532	45	1498
Karo, King L., Washington, D. C. Convertible trunk.....	391,621	Oct. 23	2012	544	45	414
Karmann, Julius, assignor of one-half to L. Hollweg, Indianapolis, Ind. Cover-fastening for vessels.....	376,036	Jan. 3	434	116	42	87
Karstens, Herman R., Chicago, Ill. Bridge-gate.....	389,086	Sept. 4	406	107	44	1150
Kaslofsky, Emil, assignor to Berliner Maschinenbau Actien-Gesellschaft, vormals L. Schwartz Kopff, Berlin, Germany. Apparatus for pumping and compressing air.....	395,060	Dec. 25	2063	{ 532 533 }	45	1498
Kast, Christian W., et al. (See Bieher, Jacob, assignor.)						
Kastler, Nicholas, La Porte, Ind. Buggy-body.....	392,808	Nov. 13	943	241	45	783
Katzenberg, Jacob, New York, N. Y. Suspensers.....	384,528	June 12	1032	269	43	1324
Kaufer, Constantiu, San Francisco, Cal. Device for hitching horses.....	382,989	May 15	1636	428	43	844
Kaufeld, Elias, Pittsburg, Pa. Permutation-padlock.....	394,119	Dec. 4	557	{ 149 150 }	45	1177
Kaufman, William H., and W. F. Mercer, assignors of one-third to T. W. Wright, Columbus, Ohio. Pants-stretcher and garment-supporter.....	387,518	Aug. 7	473	125	44	665
Kaufmann, Jacob, Toledo, Ohio. Shaft-loop.....	392,612	Nov. 13	618	162	45	725
Kaufman, Gustave. (See Meise, Edward, assignor.)						
Kaufman, J. D., et al. (See McKean, Dayton, assignor.)						
Kaufman, Louis, et al. (See Kutner, David, assignor.)						
Kaufman, Peter, Bloomington, Ill. Corn-husking implement.....	382,706	May 15	1256	328	43	769
Kaufman, Samuel. (See Shock, Abraham H., assignor.)						
Kaufmann & Co., J. (See Béné, Réhül T., assignor.)						
Kaufmann, Robert H. (See O'Hara and Kaufmann.)						
Kavanagh, Peter T., Chicago, assignor to H. Boussemacre, Lake View, Ill. Photograph-case.....	392,563	Nov. 6	562	142	45	702
Kay, Clarence H. (See Baird, William J., assignor.)						
Kay, J. C. (See Mobley, Watson C., assignor.)						
Kaylor, Mark B., assignor of one-half to J. J. Clyde, Jr., Philadelphia, Pa. Cider-mill.....	386,407	July 17	1587	{ 417 418 }	44	327
Kayner, David P., St. Charles, Ill. Smoke-preventing furnace.....	394,655	Dec. 18	1396	364	45	1358
Kayser, Adolf, assignor of two-thirds to H. Williams and A. B. Young, Buffalo, N. Y. Making alkaline silicates and carbonates.....	376,409	Jan. 10	959	251	42	192
Kayser, Adolf, assignor of two-thirds to H. Williams and A. B. Young, Buffalo, N. Y. Making alkaline silicates.....	376,410	Jan. 10	961	251	42	192
Kayser, John, Kaiserslautern, Bavaria, Germany. Sewing-machine.....	377,830	Feb. 14	752	{ 190 191 }	42	652
Kayser, Julius. (See Bonton, Arthur A., assignor.)						
Keach, George D., assignor to W. A. Shaw, Dallas, Tex. Device for automatically exhibiting business-cards, &c.....	391,160	Oct. 16	1383	368	45	281
Keane, John, San Francisco, Cal. Smoke-consuming furnace.....	378,036	Feb. 21	1125	294	42	735
Keane, Morris A. (See Harrington and Keane.)						
Kearney, Michael, Springfield, and M. C. Hawley, assignors of one-third to M. S. Rogers, St. Louis, Mo. Boiler-furnace.....	393,336	Nov. 20	1692	446	45	937
Kearney, William F., Washington, D. C., assignor of one-fifth to G. D. Tillman, Edgefield, S. C., J. A. Johnson, H. C. Wall, L. H. Rowe, and T. Parker, Washington, D. C. Boot or shoe.....	383,303	May 22	2131	562	43	949
Kearns, Isaac F., Chicago, Ill. Burner for gas cooking-stoves.....	393,764	Dec. 4	44	13	45	1080
Kearsing, Edward G., Spring Valley, N. Y. Dental gold-pellet package.....	376,889	Jan. 24	1700	414	42	347
Keast, William. (See De Coar and Keast.)						
Keast, William, Russell Gulch, Colo. Pump.....	393,565	Nov. 27	2039	531	45	1017
Keast, William, Russell Gulch, Colo. Pump.....	394,699	Dec. 18	1467	383	45	1373
Keating, Charles J., Beverly, N. J., assignor of one-half to J. A. Mundy, Philadelphia, Pa. Adjustable shutter.....	382,707	May 15	1257	329	43	769
Keating, Robert M., assignor of one-half to W. H. Murphy, Springfield, Mass. Nut-lock.....	379,278	Mar. 13	600	165	42	1085
Keavy, Thomas E., Cleveland, assignor of one-half to A. A. Tillotson, Akron, Ohio. Bulling-machine.....	382,041	May 1	250	64, 65	43	559
Keck, George A., Cerro Gordo, Ill. Brick for chimneys.....	375,753	Jan. 3	47	14	42	13
Keddie, Thomas. (See Hale, James E., assignor.)						
Keck, Milton, and J. Laberde, Gouverneur, N. Y. Running-gear for wagons.....	388,282	Aug. 21	1684	450	44	912

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.-g.	Vol.	Page.
Keedy, John H., West Alexandria, assignor of two-thirds to W. Clayton, New Lebanon, and J. Baumgardner, Dayton, Ohio. Device for securing roofing-slate.	387,360	Aug. 7	236	61	44	617
Keeler, Jerome N. (See Johnson, Alexander, assignor.)						
Keegan, Patrick J. (See Tucker and Keegan.)						
Keeln, Francis, Milwaukee, Wis. Type-founding machine.	390,680	Oct. 9	667	{ 178 179 }	45	141
Keeler, Edward L., Beaver Falls, Pa. Car-coupling.	385,185	June 26	2018	516	43	1535
Keeler, George W., Trenton, N. J. Fire-escape.	386,204	July 17	1270	339	44	264
Keeler, George W., Trenton, N. J. Sash-lock.	390,373	Oct. 2	246	66	45	52
Keeler, Horatio, <i>et al.</i> (See Martin, John F., assignor.)						
Keeler, Samuel C. (See Bryant, Calvin, assignor.)						
Keeling, John, Brooklyn, N. Y. Gas-stove.	386,473	July 24	1689	445	44	357
Keen & De Lang. (See Powell, Samuel, assignor.)						
Keenan, Edward, Philadelphia, Pa. Mail-bag receiving and delivery apparatus for railway-cars.	387,420	Aug. 7	324	83, 84	44	635
Keenan, George J. (See Selleck and Keenan.)						
Keenan, George J., Chicago, Ill. Automatic air-compressor.	384,529	June 12	1032	260	43	1325
Keenan, Hiram T., Chicago, Ill., assignor of one-half to O. Newell, Denver, Colo. Stock-gangway.	378,319	Feb. 21	1468	354	42	797
Keene, Alvin F., assignor of one-half to H. Holler, Monticello, Minn. Heating-drum.	395,280	Dec. 25	2418	620	45	1562
Keene, George C. (See Sagendorph and Keene.)						
Keene Manufacturing Company. (See Whelpley, James A., assignor.)						
Keene, Phillip H., Newport, Ky. Trunk.	390,234	Oct. 2	58	16	45	15
Keene, Stephen W., <i>et al.</i> (See Waterbury, Emery D., assignor.)						
Keep, William J., Detroit, Mich. Cooking-stove.	381,793	Apr. 24	2228	583	43	469
Keep, William J., assignor to Michigan Stove Company, Detroit, Mich. Fire-pot for stoves.	382,090	May 1	324	84	43	572
Keep, William J., assignor to Michigan Stove Company, Detroit, Mich. Stove.	382,531	May 8	989	{ 249 250 }	43	707
Keep, William J., assignor to Michigan Stove Company, Detroit, Mich. Ventilating-fue for stoves.	384,696	June 19	1294	338	43	1383
Keep, William J., assignor to Michigan Stove Company, Detroit, Mich. Stove.	388,979	Sept. 4	256	68	44	1121
Keeperts, Aaron, Lancaster, Pa. Car-coupling.	376,309	Jan. 10	822	217	42	167
Kegel, Adam, Minneapolis, Minn. Leveling-instrument.	386,924	July 31	2377	{ 624 625 }	44	493
Keighley, Frederick C., Uniontown, Pa. Appliance for operating inclined planes.	382,613	May 8	1118	287	43	733
Keil, Henry F., New York, N. Y. Spring hinge.	387,421	Aug. 7	326	84	44	636
Keilholtz, Pierre O., Baltimore, Md. Lightning-arrester.	384,042	June 5	301	85	43	1178
Keiper, Henry B., Lancaster, Pa. Tuxere.	391,474	Oct. 23	1818	466	45	373
Keith, Charles A., Danvers, Mass. Boot or shoe upper and preparing it for lasting.	377,391	Feb. 7	38	11	42	503
Keith, Charles A., Danvers, Mass. Sole for boots or shoes.	393,241	Nov. 20	1551	406	45	912
Keith, David S., Toronto, Ontario, Canada. Water-supply apparatus for water-closets, &c.	377,261	Jan. 31	2229	589	42	457
Keith, George. (See Davis and Keith.)						
Keith, George, Freedom, Ill. Horse hay-rake.	381,840	Apr. 24	2314	601	43	484
Keith, Henry N., Sheldon, Mo. Wheel-plow.	392,613	Nov. 13	649	163	45	725
Keith, Jarrett M., Greenville, S. C. Mail-bag catcher.	381,841	Apr. 24	2316	602	43	485
Keith, Myron L., Canpello, Mass. Machine for making welts for boots or shoes.	376,310	Jan. 10	824	217	42	167
Keith, Myron L., Brockton, Mass. Manufacture of welted boots or shoes.	381,384	Apr. 17	1634	435	43	334
Keith, Simeon C. (See Barnes and Keith.)						
Kelbe, Werner, Karlsruhe, Baden, assignor to Actien-Gesellschaft für Chemische Industrie, Rheinlan, near Mannheim, Germany. Production of coloring substances by the reaction of aromatic hydrazin sulphonic acids on retenechinon.	386,709	July 24	2020	-----	44	419
Kelbe, Werner, Karlsruhe, Baden, assignor to Actien-Gesellschaft für Chemische Industrie, Rheinlan, near Mannheim, Germany. Obtaining retene.	386,830	July 31	2238	-----	44	467
Kell, Mathew, Granbury, Tex. Ant-trap.	379,581	Mar. 20	1060	282	42	1181
Keller, Abraham L., Springfield, Mass. Stem winding and setting watch.	387,306	Aug. 7	164	43	44	602
Keller, Charles, Springdale, Pa. Apparatus for setting and laying glue.	386,590	July 24	1857	{ 490 491 }	44	387
Keller, Ellen J. (See Hammond, Thomas D., assignor.)						
Keller, Fred J., and J. W. Carnes, Massillon, Ohio. Electric motor.	393,373	Nov. 27	1749	463	45	958
Keller, George H., New York, N. Y. Spring fish-trap.	384,853	June 19	1520	396	43	1427
Keller, George W., Philadelphia, Pa. Shoe-maker's last.	384,448	June 12	907	236	43	1302
Keller, Henry H. (See Ross and Keller.)						
Keller, Henry R., assignor of two-thirds to W. H. Belt and O. B. Sansum, New Orleans, La. Car-starter.	384,368	June 12	799	208	43	1280
Keller, Jeremiah, Sandusky, Ohio. Grain-binder.	391,371	Oct. 16	1669	{ 442 443 }	45	335
Keller, John. (See Clawson, Keller, and See.)						
Keller, John A., Hamilton, assignor to Falls Rivet Company, Cuyahoga Falls, Ohio. Friction-clutch.	394,700	Dec. 18	1468	383	45	1373
Keller, Joseph M., Philadelphia, Pa. Jar-fastening.	380,326	Apr. 3	27	8	43	7
Keller, Moses A., Batavia, N. Y. Bundle-ejecting mechanism for grain-binding machines.	377,831	Feb. 14	755	191	42	653
Kellermann, Charles, and H. M. Solveson, Chicago, Ill. Calk-plate for shoes.	380,901	Apr. 10	905	242	43	185
Kelley, Charles, Toronto, and J. Ball, Waterloo, Ontario, Canada; said Ball assignor to said Kelley. Privy-seat.	394,863	Dec. 18	1754	454	45	1430
Kelley, Charles H., Boston, assignor to C. B. Lancaster, Newton, Mass. Lasting-machine.	379,538	Mar. 13	983	{ 264 265 }	42	1159
Kelley, George W. (See Gore, Kn Ton, and Kelley.)	381,019	Apr. 10	1081	287	43	218
Kelley, Harry E. (See Sears and Kelley.)						
Kelley, James C., Leonardville, Kans. Head-gear for vehicles.	395,237	Dec. 25	2362	604	45	1550
Kelley, Oliver S. (See Green, George F., assignor.)						
Kelley, William G. (See Stowe, Samuel F., assignor.)						
Kelley, William J., Pittsfield, assignor to Springfield Wood Working Company, Springfield, Mass. Manufacturing mosaic wood-work.	392,809	Nov. 13	944	241	45	783
Kelley, William J., Pittsfield, assignor to Springfield Wood Working Company, Springfield, Mass. Mosaic wood-work.	392,810	Nov. 13	945	{ 241 242 }	45	783
Kellison, Jonathan B., <i>et al.</i> (See Willett, Judson D., assignor.)						
Kellogg, Albert A., Clinton, Mo. Latch and lock combined.	389,304	Sept. 11	780	198	44	1228
Kellogg, Alfred J., assignor of one-half to W. K. McAnlis and A. A. Wixon, Clay Centre, Kans. Station-indicator and advertising-cabinet.	394,371	Dec. 11	955	250	45	1264
Kellogg, Andrew J., Richland, Mich. Two-wheeled vehicle.	393,836	Dec. 4	148	40	45	1100
Kellogg, Benjamin F., Fall River, Mass. Game.	391,715	Oct. 23	2140	579	45	440
Kellogg, Charles, Buffalo, N. Y. Ingot-mold.	395,061	Dec. 25	2065	533	45	1499
Kellogg, Charles A. (See Scales, Edward A., assignor.)						
Kellogg, Marmaduke B., San Francisco, Cal. Mechanical movement.	383,577	May 29	2542	671	43	1032



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	382,471	May 8	903	230	43	680
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	382,475	May 8	907	230	43	690
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	382,476	May 8	910	231	43	691
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	382,477	May 8	913	231	43	692
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	385,863	July 10	793	211	44	161
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	386,886	July 31	2312	{ 608 } 609	44	480
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	386,887	July 31	2316	609	44	481
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	387,645	Aug. 14	683	{ 176 } 177	44	710
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	387,888	Aug. 14	1036	272	44	778
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	387,889	Aug. 14	1038	273	44	778
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	387,890	Aug. 14	1041	273	44	779
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	388,052	Aug. 21	1301	352	44	839
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	388,283	Aug. 21	1685	{ 450 } 451	44	911
Kellogg, Milo G., Hyde Park, Ill. Multiple switch-board.....	393,508	Nov. 27	1951	511	45	997
Kellogg, Milo G., Chicago, Ill. Multiple switch-board.....	393,509	Nov. 27	1957	511	45	999
Kellogg Newspaper Company, A. N. (See Damon and Peets, assignors.)						
Kellogg Newspaper Company, A. N. (See Partridge, Charles S., assignor.)						
Kellogg, Salvin F., Clay Centre, Kans. Device for converting motion.....	382,881	May 15	1490	390	43	817
Kellogg Seamless Tube and Manufacturing Company. (See Appleton, William H., assignor.)						
Kellogg, Timothy, Underwood, Minn. Chair-seat.....	375,754	Jan. 3	48	14	42	13
Kellogg, Warren T., Lansingburg, N. Y. Portable forge.....	389,305	Sept. 11	781	198	44	1228
Kellogg, Warren T., Lansingburg, N. Y. Sash-cord guide.....	395,238	Dec. 25	2363	604	45	1550
Kells, Charles E., New Orleans, La. Apparatus for the formation of deep wells.....	386,987	July 31	2462	647	44	511
Kelly, Alexander C., and A. M. Freeman, Metuchen, N. J., assignors to said Kelly. Fold- ing basket.....	385,633	July 3	455	{ 117 } 118	44	88
Kelly, Annabella and M. A., Holman Station, Ind. Escape attachment for vapors and odors from cooking-vessels.....	389,306	Sept. 11	783	198	44	1228
Kelly, Edward G. (See Ripson, John D., assignor.)						
Kelly, Ernst, St. Louis, Mo. Lawn-mower.....	377,562	Feb. 7	318	81	42	556
Kelly, Franklin W., Vermontville, Mich. Picket-fence machine.....	391,851	Oct. 30	2348	637	45	490
Kelly, Franklin W., Vermontville, Mich. Shutter-worker.....	391,898	Oct. 30	2414	653	45	504
Kelly, George, Chicago, Ill. Equilibrium appliance for rocking-chairs.....	379,472	Mar. 13	884	238	42	1140
Kelly, George B. (See Given, John L., assignor.)						
Kelly, George B., Boston, Mass. Pneumatic cash-carrier apparatus.....	378,792	Feb. 28	2143	{ 566 } 567	42	937
Kelly, James, Carver, Minn. Work-bench.....	386,831	July 31	2238	588	44	467
Kelly, James A., et al. (See Hogan, George L., assignor.)						
Kelly, James H., and E. P. Follett, Rochester, N. Y., said Follett assignor to said Kelly. Lantern.....	378,889	Mar. 6	47	13	42	975
Kelly, James J., Albany, N. Y. Show-case.....	378,594	Feb. 28	1873	495	42	886
Kelly, John A., assignor of one-half to M. J. McCormack, Philadelphia, Pa. Shoe or gaiter.....	380,289	Mar. 27	2108	564	42	1395
Kelly, John A., assignor of one-half to M. J. McCormack, Philadelphia, Pa. Boot or shoe.....	380,290	Mar. 27	2109	564	42	1396
Kelly, John E., Camden, N. J. Combined speaking and signaling apparatus.....	385,357	July 3	25	8	44	7
Kelly, John F., assignor to United States Electric Lighting Company, New York, N. Y. Armature for dynamos.....	381,700	Apr. 24	2099	519	43	444
Kelly, John J. (See Eames, Henry H., assignor.)						
Kelly, John P., Buffalo, N. Y. Feed-water circulator.....	394,372	Dec. 11	956	251	45	1264
Kelly, John T. (See Gilmore and Branaman, assignors.)						
Kelly, Joseph N., Springfield, Ohio. Clamp and die for punches.....	390,863	Oct. 9	926	244	45	188
Kelly, Martha A. (See Kelly, Annabella and M. A.)						
Kelly, Owen E., assignor of one-half to H. A. Seymour, Bristol, Conn. Shaft-support for vehicles.....	379,703	Mar. 20	1237	329	42	1216
Kelly, Patrick, Poughkeepsie, assignor to A. C. Rand, New York, N. Y. Drift column or support for rock-drills.....	376,659	Jan. 17	1343	353	42	271
Kelly, Patrick, Poughkeepsie, assignor to A. C. Rand, New York, N. Y. Support for rock- drills.....	388,203	Aug. 21	1563	415	44	886
Kelly, Thomas. (See Smith and Kelly.)						
Kelly, Thomas, New York, N. Y. Book-cover.....	384,697	June 19	1296	338	43	1323
Kelly, Wallace C., assignor to H. Goodell, E. B. Wilcox, and W. S. Benham, Hastings, Mich. Platform-scale.....	381,931	May 1	45	13	43	523
Kelly, William, Saranac, Mich. Fence.....	378,793	Feb. 28	2145	567	42	937
Kelly, William E., New Brunswick, N. J. Grate-bar.....	394,984	Dec. 25	1959	504	45	1477
Kelly, William H., Greenville, Va. Convertible shafts and pole for vehicles.....	380,806	Apr. 10	755	207	43	158
Kellyer, David H., et al. (See Powers, Frank H., assignor.)						
Kelso, Joseph N., Antrini, N. H., assignor to E. I. K. Noyes, Cambridge, Mass. Spool or bobbin.....	382,091	May 1	326	85	43	573
Kelsey, Frank N., and W. A. Stevenson, New Haven, Conn. Automatic railway-switch.....	377,941	Feb. 14	911	235	42	685
Kelsey, George R., West Haven, Conn. Buckle-frame.....	376,599	Jan. 17	1235	325	42	252
Kelsey, George R., West Haven, Conn. Manufacture of buckle-frames.....	384,449	June 12	909	237	43	1302
Kelsey, George W., Jr., assignor to M. A. Kelsey, Lake View, Ill. Fly-net for horses.....	391,372	Oct. 16	1676	443	45	336
Kelsey, Mary A. (See Kelsey, George W., Jr., assignor.)						
Kelso, George R. (See Williams, John H., assignor.)						
Kelso, John M., Mexico, Mo. Device for hoisting wagon-beds.....	386,323	July 17	1459	386	44	298
Kelso, Robert, Philadelphia, Pa. Mat.....	386,434	July 17	1622	426	44	335
Kelstad, Henrik, Minneapolis, Minn. Tap.....	391,161	Oct. 16	1385	368	45	281
Kelton, George, near Kiowa, Colo. Railway-tie.....	377,162	Jan. 31	2079	547	42	429
Kelton, John C., Washington, D. C. Cartridge-pack.....	394,373	Dec. 11	958	252	45	1264
Kelton, John C., Washington, D. C. Cartridge-feed pack.....	394,374	Dec. 11	959	252	45	1265
Kelton, John C., Washington, D. C. Cartridge-case and means for carrying the same.....	394,375	Dec. 11	959	252	45	1265
Kelton, John C., Washington, D. C. Cartridge-case.....	394,376	Dec. 11	960	252	45	1265
Kemner, Ernst W., and A. F. Wiking, Ystad, Sweden. Windmill.....	389,476	Sept. 11	1023	273	44	1274
Kemper, Lewis H., Milwaukee, Wis. Temporary binder.....	392,516	Nov. 6	497	125	45	629
Kemper, Millington, trustee. (See Blaine and Hill, assignors.)						
Kempshall, Eleazer, New Britain, Conn. Heel for boots or shoes.....	376,824	Jan. 24	1608	421	42	339
Kempson, Alfred, Tunbridge Wells, county of Kent, England. Ink pot or holder.....	378,595	Feb. 28	1874	495	42	886
Kempster, Daniel E., Boston, Mass. Metal-rolling machine.....	380,759	Apr. 10	687	190	41	146
Kempster, Daniel E., Boston, Mass. Die for rolling articles of metal.....	385,186	June 26	2019	516	43	1535
Kempster, Daniel E., Boston, Mass. Metal-rolling machine.....	388,565	Aug. 28	2092	563	44	995
Kendall, A. Leslie, Brooklyn, assignor to W. Stanley, New York, N. Y. Stove.....	378,449	Feb. 28	1668	437	42	844
Kendall, Benjamin F., Andersonville, Ky. Bee-hive.....	391,162	Oct. 16	1325	369	45	281

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Kendall, Chauncey E., Buffalo, N. Y. Boiler-tube cleaner .....	386,988	July 31	2464	647	44	511
Kendall, David W., Detroit, Mich. Combined towel-rack and receptacle .....	390,681	Oct. 9	673	179	45	142
Kendall, George B. (See Phares, James S., assignor.)						
Kendall, George W., St. Albans, Vt. Folding machinery for printing-presses .....	389,656	Sept. 18	1315	{ 343 344 }	44	1334
Kendall, John A., Maysville, Mo. Fluid drawing and measuring device .....	384,766	June 19	1380	362	43	1400
Kendall, Henry, Xenia, Ohio. Combined latch and lock .....	394,701	Dec. 18	1469	383	45	1373
Kendall, Stephen, San Francisco, Cal. Ore-crusher .....	378,450	Feb. 23	1669	438	42	844
Kendig, John S. (See Cogley and Kendig.)						
Kendrick, George R., Bryant, Ind. Grain weighing, registering, and bagging machine .....	377,163	Jan. 31	2080	{ 547 548 }	42	429
Kendrick, George R., Bucyrus, Ohio. Grain measuring, registering, and bagging machine .....	392,344	Nov. 6	247	63, 64	45	641
Kendrick, William F., assignor of one-half to H. L. Glass, Winfield, Iowa. Cutter-bar .....	383,057	May 15	1764	456	43	869
Kengla, William S. (See Waer, Phillips, and Kengla.)						
Kenison, John B., Lynn, Mass. Street-sanding machine .....	393,374	Nov. 27	1751	464	45	959
Kenna, Joseph W., Chicago, Ill. assignor to J. W. Vail, trustee, Port Washington, Wis. Tilting-chair .....	382,235	May 1	520	{ 133 134 }	43	609
Kennedy, Bernard J. (See Foster and Kennedy.)						
Kennedy, Charles A. (See Kennedy, George A., assignor.)						
Kennedy, Edward S. T. (See Houghtaling, William, assignor.)						
Kennedy, George. (See Kennedy, Robert and G.)						
Kennedy, George A., assignor to C. A. Kennedy, Coaticook, Quebec, Canada. Lantern .....	391,373	Oct. 16	1676	443	45	336
Kennedy, George V. (See Mason, Frank H., assignor.)						
Kennedy, Herman N., assignor of one-half to J. Sayers, Lake View, Ill. Lathe-chuck .....	379,473	Mar. 13	885	238	42	1141
Kennedy, J. Herbert. (See Koen, Joseph, assignor.)						
Kennedy, John F., assignor of two-thirds to T. Gowan and A. Ennis, Elkton, Md. Soda-ash furnace .....	388,284	Aug. 21	1690	451	44	913
Kennedy, John P., New York, N. Y. Machine for closing the ends of metal tubes .....	389,087	Sept. 4	409	107	44	1151
Kennedy, John W., Miltonvale, Kans. Fender for cultivators .....	381,701	Apr. 24	2100	549	43	445
Kennedy, Julian, Pittsburg, Pa. Bosh-plate for blast-furnaces .....	378,550	Feb. 28	1806	477	42	873
Kennedy, Julian, Pittsburg, Pa. Ingot-manipulator .....	386,324	July 17	1460	386	44	298
Kennedy, Julian, Homestead, Pa. Manufacture of eye-bars .....	395,239	Dec. 25	2364	605	45	1551
Kennedy, Martin, Hegewisch, Ill. Machine for bending and forging coupling-links, &c. ....	379,474	Mar. 13	886	{ 238 239 }	42	1141
Kennedy, Martin, Hegewisch, assignor to United States Rolling Stock Company, Chicago, Ill. Making turn-buckles .....	395,281	Dec. 25	2420	620	45	1562
Kennedy, Rankin, assignor of one-half to R. Dick, Glasgow, county of Lanark, Scotland. Alternating-current transformer .....	378,320	Feb. 21	1469	384	42	797
Kennedy, Rankin, assignor of one-half to R. Dick, Glasgow, county of Lanark, Scotland. Transformation and distribution of electric energy .....	378,321	Feb. 21	1470	384	42	797
Kennedy, Rankin, assignor of one-half to R. Dick, Glasgow, county of Lanark, Scotland. Transformation and distribution of electric energy .....	381,794	Apr. 24	2229	{ 583 584 }	43	469
Kennedy, Robert and G., New Westminster, British Columbia, Canada. Perforator for printing-presses .....	380,578	Apr. 3	412	117	43	84
Kennedy, Samuel V., assignor to Minneapolis Harvester Works, Minneapolis, Minn. Grain-binding harvester .....	376,199	Jan. 10	672	{ 178 179 }	42	139
Kennedy, Samuel V., assignor to Minneapolis Harvester Works, Minneapolis, Minn. Harvester .....	377,077	Jan. 31	1964	{ 515 516 }	42	405
Kennedy, Samuel V., assignor to Minneapolis Harvester Works, Minneapolis, Minn. Wheel .....	383,645	May 29	2638	698	43	1054
Kennedy, Samuel V., and C. A. Anderson, assignors to Minneapolis Harvester Works, Minneapolis, Minn. Grain-binder .....	380,119	Mar. 27	1882	{ 500 501 }	42	1350
Kennedy, Samuel V., and C. A. Anderson, assignors to Minneapolis Harvester Works, Minneapolis, Minn. Self-binding harvester .....	382,532	May 8	990	{ 250 251 252 }	43	707
Kennedy, Samuel V., and C. A. Anderson, assignors to Minneapolis Harvester Works, Minneapolis, Minn. Grain-binder .....	385,059	June 26	1839	471	43	1498
Kennedy, Samuel V., and D. Strunk, assignors to Minneapolis Harvester Works, Minneapolis, Minn. Mowing-machine .....	383,644	May 29	2636	{ 697 698 }	43	1053
Kennedy, Thomas, deceased, Philadelphia, Pa.; J. Farley administrator. Siphon water-closet .....	376,002	Jan. 3	381	101	42	77
Kennedy, Thomas, deceased, Philadelphia, Pa.; J. Farley administrator. Water-closet .....	376,311	Jan. 10	825	218	42	167
Kennedy, Thomas F., et al. (See Yund, Theodore J., assignor.)						
Kennedy, William J., and L. A. De Mayo, Jersey City, N. J. Truck .....	384,369	June 12	800	208	43	1280
Kennedy, William M., Pittsburg, Pa. Rotary bolt .....	394,985	Dec. 25	1960	505	45	1477
Kenner, George W. (See Whitledge, Kenner, and Rueckert.)						
Kennett, John R., Syracuse, N. Y. Marine and land merry-go-round .....	392,155	Oct. 30	2812	763	45	582
Kenney, Cyrus A., Nicholasville, Ky. Wheeled dumping-scraper .....	390,374	Oct. 2	246	67	45	52
Kenney, Patrick L., Pittsfield, Mass. Tension-regulator for spindle-driving bands .....	395,240	Dec. 25	2366	605	45	1551
Kensington Chair Company. (See Parks, Dana, assignor.)						
Kent, Ernest N. (See Besson and Kent.)						
Kent, Lee, Hot Springs, Ark. Painter's combination pot-hook .....	376,825	Jan. 24	1609	421	42	329
Kent, William. (See Springer and Kent.)						
Kenton, Charles L. (See Wells, William H., assignor.)						
Kenway, Percy N., Lowell, Mass. Pipe-hanger .....	376,450	Jan. 17	1069	280	42	230
Kenyon, George N., Narragansett Pier, R. I. Dumping-barge .....	394,073	Dec. 4	492	131	45	1166
Kenyon, Jacob G., Port Kenyon, Cal. Vehicle .....	392,866	Nov. 13	1021	{ 261 262 }	45	800
Kenyon, James C. (See Frisbie, William L., assignor.)						
Kepler, Solomon, Kenilworth, Pa. Stove-pipe damper .....	393,242	Nov. 20	1552	406	45	912
Ker, John B. (See Crawford and Ker.)						
Ker, John B., Harrisburg, and J. Crawford, Reading, Pa. Telephone apparatus .....	393,243	Nov. 20	1553	407	45	912
Kern, Amiah J., Bellevue, Ohio. Cultivator .....	393,244	Nov. 20	1556	407	45	913
Kern, Edwin A., Girard, Ohio. Switch for tracks for carrying iron .....	388,688	Aug. 28	2275	611	44	1029
Kernan, Francis, Jr., Utica, N. Y. Heating-furnace .....	383,469	May 29	2385	635	43	1002
Kernan, Francis, Jr., assignor to R. Wheeler, Son & Co., Utica, N. Y. Evaporating-pan for hot-air furnaces .....	385,716	July 10	575	149	44	119
Kerns, Edward J., Worcester, Mass. Rolling seat for boats .....	392,867	Nov. 13	1022	262	45	800
Kerns, Simon A., assignor to Rock Island Plow Company, Rock Island, Ill. Wheel-plow .....	392,207	Nov. 6	42	11	45	602
Kerns, Simon A., assignor to Rock Island Plow Company, Rock Island, Ill. Wheel-plow .....	393,707	Nov. 27	2253	591	45	1059
Kerr, Alexander M., assignor of three-fourths to Fulton Iron and Engine Works, Detroit, Mich. Lock for hoisting-tackle .....	389,155	Sept. 4	540	136	44	1172
Kerr, Andrew B., Logan's Ferry, Pa. Nut-lock .....	384,767	June 19	1382	362	43	1401
Kerr, Robert. (See Winterfield, Henry I., assignor.)						
Kerrison, Charles, Jr., Charleston, S. C. Fish-hook .....	377,033	Jan. 31	1899	499	42	392

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Kerrivan, John, assignor to Pettee Machine Works, Newton Upper Falls, Mass. Spindle-hub bearing for roving-frames.....	377,678	Feb. 7	493	127	42	588
Kershaw, Robert M., Auburn, Me. Gate for elevator-hatchways.....	390,864	Oct. 9	928	245	45	188
Kerstetter, Charles W., Chicago, Ill. Automatic sprinkler.....	383,890	June 5	63	19	43	1132
Kesseling, Friedrich, Paterson, N. J., assignor to R. S. McCreery, New York, N. Y. Loom.....	376,302	Jan. 10	826	{ 218 219 }	42	168
Koster, Jerome B., Clarksburg, W. Va. Sash-fastener.....	377,522	Feb. 7	266	67	42	545
Kostol, James G. (See Butler, Edward F., assignor.)						
Kotchum, Nathaniel S., Marshalltown, Iowa. Sand-band and clip for vehicle-axles.....	387,646	Aug. 14	686	177	44	711
Kotchum, Nathaniel S., and S. D. Palmer, assignors to Ketchum Wagon Company, Marshalltown, Iowa. Road-cart.....	391,250	Oct. 16	1500	398	45	304
Ketchum, Volney S. (See Brown and Ketchum.)						
Ketchum Wagon Company. (See Ketchum and Palmer, assignors.)						
Ketting, Orlando C., Montezuma, Ohio. Sash-fastener.....	378,794	Feb. 28	2146	567	42	937
Kettinger, Peter, assignor to Defiance Machine Works, Defiance, Ohio. Lathe for turning irregular forms.....	378,322	Feb. 21	1472	385	42	797
Kettinger, Peter, assignor to Defiance Machine Works, Defiance, Ohio. Band-saw machine.....	390,083	Sept. 25	1956	520	44	1471
Ketterer, Eduard. (See Hamburg and Ketterer.)						
Ketterer, Paul. (See Hamburg and Ketterer.)						
Kettlewell, Gover. (See Leonard and Kettlewell.)						
Kettlowood, John M., New Brighton, Pa. Pole-socket and neck-yoke.....	377,679	Feb. 7	494	127	42	589
Key, James T., Blackburn, La. Artificial stone.....	387,519	Aug. 7	475	.....	44	665
Keyes, Frank E., Peterborough, N. H. Insulator for electrical wires.....	383,734	May 29	2767	729	43	1080
Keyes, Frank E., Peterborough, assignor to Amoskeag Indurated Fiber Ware Company, Manchester, N. H. Boring-machine.....	384,854	June 19	1521	396	43	1427
Keyes, Wilcy S., Verona, Miss. Nut-lock.....	386,989	July 31	2464	647	44	511
Keyes, William J., Wheeling, Ala. Car-door.....	389,706	Sept. 18	1587	363	44	1349
Keyser, John H., New York, N. Y. Summer-piece for stoves.....	394,702	Dec. 18	1470	384	45	1373
Keystone Manufacturing Company. (See Spafford, Mark A., assignor.)						
Keystone Watch Case Company. (See Chappatte, Edward C., assignor.)						
Kibbe, George, Amsterdam, N. Y. Extensible crank-arm.....	385,717	July 10	576	149	44	120
Kibbe, George, Amsterdam, N. Y. Velocipede.....	386,990	July 31	2466	648	44	511
Kibbe, George, Amsterdam, N. Y. Bicycle.....	393,837	Dec. 4	149	41	45	1100
Kibler, John B., Minneapolis, Minn. Device for poisoning flies.....	378,509	Feb. 28	1747	461	42	861
Kiblinger, Lee, Jackson, La. Screw-driver attachment.....	384,043	June 5	302	85	43	1178
Kidder, George R., Inlay City, Mich. Ironing-board.....	393,245	Nov. 20	1558	408	45	913
Kidder, Moses W., Lincoln, Nebr. School-desk.....	388,447	Aug. 28	1893	505	44	966
Kidder, Moses W., Lincoln, assignor to P. Noyes, Lowell, Mass. Gas-pressure regulator.....	376,313	Jan. 10	831	219	42	168
Kidder, Wellington P., Maplewood, Mass. Velocipede.....	375,755	Jan. 3	49	15	42	13
Kidder, Wellington P., Malden, assignor to Boston Tag and Printing Company, Boston, Mass. Tag and manufacture of the same.....	377,109	Jan. 31	2018	529	42	415
Kiddie, Thomas, New Brighton, N. Y., assignor to Orford Copper Company, of New Jersey. Separating precious metals and impurities from solutions of copper, salts, ores, mattes, &c., in acids.....	377,809	Feb. 14	725	.....	42	648
Kidney, William C., New York, N. Y. Strong box or coffer.....	384,855	June 19	1523	396	43	1427
Kiefer, Charles, Toledo, Ohio. Hose-coupling.....	383,360	May 22	2202	582	43	963
Kiefer, Jacob, Bridgeport, Conn. Type-writer cabinet.....	394,377	Dec. 11	962	253	45	1265
Kielner, John T. (See Ballman, William, assignor.)						
Kiel, William, Butler, N. J. Vulcanized plastic compound.....	393,838	Dec. 4	152	.....	45	1101
Kiele, Timothy J., New York, N. Y. Steam-regulator.....	389,227	Sept. 11	656	168	44	1204
Kiele, Timothy J., New York, N. Y. Steam-heating system.....	391,415	Oct. 23	1732	462	45	355
Kienardt, John A., assignor of one-half to P. T. South, Dayton, Ohio. Carpet-stretcher.....	377,309	Jan. 31	2300	608	42	470
Kierolf, Salem E., assignor of one-half to F. A. Williams, Jackson, Tenn. Carriage-top.....	388,689	Aug. 28	2276	611	44	1030
Kiesele, John A., New York, N. Y. Composition of matter.....	382,882	May 15	1491	.....	43	817
Kieser, Charles, Baltimore, Md. Combined car starter and brake.....	392,345	Nov. 6	250	64	45	642
Kiger, Alfred, Daretown, N. J., assignor of one-half to T. C. Avis, Philadelphia, Pa. Baling-clamp.....	391,622	Oct. 23	2013	544	45	414
Kiggins & Touker Co. (See Young, Samuel J., assignor.)						
Kight, William K., assignor of one-fifth to J. A. Bohner, Keener's, Mo. Steam-engine.....	382,309	May 8	642	164	43	644
Kihr, Charles M., Buckmann, Minn. Snow-velocipede.....	393,071	Nov. 20	1311	342	45	863
Kilborn, Wilber E. (See Goode, William H. C., assignor.)						
Kilborn, Wilber E., Sidney, Ohio. Earth-scraper.....	377,523	Feb. 7	267	67	42	546
Kilborn, William W., assignor to C. Parker Company, Meriden, Conn. Locking device in extension-chandeliers.....	383,815	May 29	2910	768	43	1106
Kilbourn, Washington H., Olean, N. Y. Stop-motion for knitting-machines.....	390,375	Oct. 2	252	67	45	54
Kilburn, James F., South Yarra, near Melbourne, county of Bourke, Victoria. Windmill.....	389,477	Sept. 11	1026	{ 273 274 }	44	1274
Kile, George H., Mount Valley, Kans. Trap for fish or game.....	386,591	July 24	1859	491	44	387
Kiler, Charles M. (See Helfenberger and Kiler.)						
Kiler, George W. (See Helfenberger and Kiler.)						
Kiley, George A., Rochester, N. Y. Radiator-connection.....	376,481	Jan. 17	1071	280	42	220
Kilgore, Frederick O., assignor of one-half to J. F. Williamson, Minneapolis, Minn. Automatically-adjustable press-roll for gang-saw mills.....	389,816	Sept. 18	1536	407	44	1380
Kilham, John T., Wilmington, N. C. Theatrical appliance.....	383,361	May 22	2203	{ 582 583 }	43	963
Killefer, John, Bloomingdale, Mich. Washing-machine.....	380,902	Apr. 10	906	243	43	186
Killin, Virgil C., Chicago, Ill. Arc lamp.....	388,053	Aug. 21	1306	352	44	839
Killinger, Edgar P., Marion, Va. Band-cutter and feeder.....	386,017	July 10	1002	{ 266 267 }	44	205
Kilmer, Frederic B. (See Higgins, Joseph C., assignor.)						
Kilpatrick, Andrew, Morton, Pa. Car-brake.....	382,310	May 8	643	164	43	642
Kilpatrick, Daniel, Morning Sun, Iowa. Rock-drilling implement.....	391,899	Oct. 30	2415	653	45	504
Kimball, Andrew C., assignor of one-half to J. D. Anthony, Providence, R. I. Tube-compiling.....	381,582	June 12	1111	294	43	1339
Kimball, Benjamin M. (See Kimball, Charles M., assignor.)						
Kimball, Charles M., assignor to himself and B. M. Kimball, Haverhill, Mass. Apparatus for treating skins.....	381,932	May 1	46	13	43	524
Kimball, Charles M., assignor to himself and B. M. Kimball, Haverhill, Mass. Treating morocco-skins and other leather.....	381,933	May 1	47	13	43	524
Kimball Company, W. W. (See Harcourt, Stillwell R., assignor.)						
Kimball Company, W. W. (See Hessler, Jacob, assignor.)						
Kimball, Freddie C., Jackson, Mich. Check-hook.....	378,795	Feb. 28	2147	567	42	938
Kimball, Gustavus F., Topeka, Kans. Blank attachment to tympan-sheets for printing envelopes.....	385,060	June 26	1842	471	43	1498

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr &g	Vol.	Page.
Kimball, J. Albert, New York, N. Y. Table-ware .....	381,795	Apr. 24	2231	584	43	469
Kimball, Joseph A., New York, N. Y. Pen-holder .....	379,789	Mar. 20	1362	363	42	1241
Kimball, Joseph A., New York, N. Y. Dental-tool holder .....	381,143	Apr. 17	1259	345	43	268
Kimball, Joseph A., New York, N. Y. Change-receiver .....	384,583	June 12	1112	294	43	1339
Kimball, Joseph A., New York, N. Y. Dental mixing-dish .....	386,750	July 24	2078	547	44	429
Kimball, Joseph E., Milford, assignor to H. S. Jenkins, trustee, Boston, Mass. Shoe-nail .....	386,435	July 17	1622	426	44	335
Kimball, Joseph E., Milford, Mass., assignor to H. S. Jenkins, trustee. Wire-nail-making machine .....	395,062	Dec. 25	2066	533 534	45	1499
Kimball, Samuel H. (See Davis, James E., assignor.) .....						
Kimball, Samuel S., Bangor, Me. Domino .....	377,832	Feb. 14	756	199	42	653
Kimball, William N., Bradford, and W. H. Hersey, Haverhill, Mass. Spinning-mule .....	388,054	Aug. 21	1307	352	44	839
Kimball, Willis G. C., Concord, N. H. Photograph-burnisher .....	379,314	Mar. 13	658	178	42	1096
Kimberlin Manufacturing Company. (See Davis, Calvin L., assignor.) .....						
Kimberly, Peter L. (See Jones, John T., assignor.) .....						
Kimble, Fred. (See Smith, Elias, assignor.) .....						
Kimble, Smith W., Denver, Colo. Ore-crushing machine .....	381,385	Apr. 17	1635	435	43	334
Kimble, George H., Creelsborough, Ky. Broom-head .....	389,637	Sept. 18	1317	344	44	1335
Kimbro, Jeremiah H. (See Foster and Kimbro.) .....						
Kime, Daniel H., Kendallville, Ind., and H. Williams, Toledo, Ohio. Hasp-lock .....	379,896	Mar. 20	1554	409	42	1276
Kimney, Alfred. (See Beckley and Kimney.) .....						
Kimplen, Cornelius, Chicago, Ill. Utilizing coal-dust .....	392,868	Nov. 13	1023		45	800
Kimplen, Cornelius, Chicago, Ill. Prepared fuel .....	392,869	Nov. 13	1024		45	800
Kincaid, Henry L., York, Mont. Ter. Handle for crosscut-saws .....	381,796	Apr. 24	2232	584	43	469
Kincaid, Henry L., assignor of one-half to F. D. Spratt, York, Mont. Ter. Saw-set gage .....	392,436	Nov. 6	384	94	45	666
Kincaid, James W., Georgetown, Tex. Mechanical movement .....	390,976	Oct. 9	1103	291	45	221
Kincaid, James W., assignor of one-half to E. Taylor, Georgetown, Tex. Means for securing corks .....	379,230	Mar. 13	536	149	42	1073
Kinch, William H. (See Cabry and Kinch.) .....						
Kinder, Claude W., Tien-Tsin, Chihli, China. Force-pump .....	377,833	Feb. 14	757	192 193	42	653
Kinder, Julius, Brooklyn, N. Y., assignor to Solid Link Chain Manufacturing Company, of New York. Machine for making chain .....	378,252	Feb. 21	1369	360	42	778
Kindl, Fred H., assignor of one-half to R. Bennett, Chicago, Ill. Machine for making metal stirrups .....	379,202	Mar. 6	486	137	42	1058
Kindlen, John H., assignor to Cragin Manufacturing Company, Chicago, Ill. Sprinkling or other can .....	375,878	Jan. 3	202	56	42	43
King, Benjamin D. and J. B., Baldwin, Miss. Cotton-seed planter .....	380,723	Apr. 10	631	173	43	135
King, Charles A. (See King, Charles W., assignor.) .....						
King, Charles E., Newark, N. J. Self-feeding cooking-stove .....	384,207	June 5	544	149 150	43	1226
King, Charles J., Woodstown, N. J. Clip for trace attachments .....	378,689	Feb. 28	2011	531	42	912
King, Charles J., Woodstown, N. J. Attachment for driving lines or reins .....	391,323	Oct. 16	1603	424	45	323
King, Charles R., Lampasas, Tex. Machine for washing dishes, fruits, &c .....	392,517	Nov. 6	498	125	45	690
King, Charles R., A. P. Aten, and W. B. Floyd, Lampasas, Tex. Car-coupling .....	378,370	Feb. 21	1542	403	42	812
King, Charles W., Kalamazoo, Mich. Portable boat .....	369,817	Sept. 18	1538	407	44	1380
King, Charles W., Williamston, Mich. Writing-frame .....	391,747	Oct. 23	2180	588	45	448
King, Charles W., West Newton, Mass., assignor to C. A. King, New York, N. Y. Insole .....	386,832	July 31	2241	589	44	467
King, Charles W., West Newton, Mass., assignor to C. A. King, New York, N. Y. Boot or shoe .....	386,833	July 31	2241	589	44	467
King, Charles W., West Newton, Mass., assignor to C. A. King, New York, N. Y. Fastening for boots or shoes .....	392,677	Nov. 13	736	187	45	742
King, Chester S., and E. G. Brown, Smethport, Pa. Carburetor .....	385,121	June 26	1927	491 492	43	1516
King & Co., Alexander. (See Hart, Albert J., assignor.) .....						
King, Daniel R., York, and W. A. King, Columbia, Pa. Bretzel or cracker sizing and salting machine .....	393,474	Nov. 27	1909	490	45	988
King, Daniel R., York, and W. A. King, Columbia, Pa. Bretzel or cracker sizing and salting machine .....	393,475	Nov. 27	1911	500	45	988
King, David H., New York, N. Y. Can-opener .....	390,025	Sept. 25	1856	492	44	1450
King, De Wit C., Boston, Mass. Pillow-sham holder and lifter .....	383,304	May 22	2132	563	43	949
King, Edward, Butte City, Mont. Ter. Sleigh-knee .....	379,170	Mar. 6	436	123	42	1049
King, Edward A., et al. (See Spicer, Andrew J., assignor.) .....						
King, Ferdinand, New York, N. Y. Game-counter .....	387,422	Aug. 7	328	84	44	636
King, Francis A., and G. F. Brand, York, Pa. Non-slipping shoe .....	377,431	Feb. 7	198	27	42	519
King, Frank, Fulham, county of Middlesex, England. Secondary battery .....	385,568	July 3	342	88, 89	44	69
King, Frank B. (See Clark and King.) .....						
King, Harvey B., Hartford, Conn. Show-case .....	377,857	Feb. 14	763	200	42	659
King, Henry, Baltimore, Md. Cabinet for displaying cakes and confections .....	379,475	Mar. 13	888	239	42	1141
King, Henry, Baltimore, Md. Show-case .....	392,125	Oct. 30	2765	751	45	573
King, Henry N., Adrian, assignor of one-half to J. E. Bolles, Detroit, Mich. Roll-paper holder .....	383,578	May 29	2543	672	43	1033
King, Hezekiah O., and F. Hammond, Greenville, S. C. Automatic railway signal-carrier and torpedo-placer .....	387,520	Aug. 7	475	125	44	665
King, Jabez W., Toledo, Ohio. Paper-clip .....	381,702	Apr. 24	2101	550	43	445
King, Jacob C., York, Pa. Automatic grain-meter .....	383,362	May 22	2205	583	43	903
King, James, Sandusky, Ind. Wire fence .....	377,524	Feb. 7	268	67, 68	42	546
King, James M., Benedict, Kans. End-gate .....	377,680	Feb. 7	495	128	42	589
King, Jefferson B. (See King, Benjamin D. and J. B.) .....						
King, Jefferson B., Baldwin, Miss. Cotton-chopper .....	377,392	Feb. 7	39	12	42	503
King, Jeremiah J., New York, N. Y. Pigeon-trap .....	381,386	Apr. 17	1636	435 436	43	335
King, John P., Philadelphia, Pa. Culinary vessel .....	378,690	Feb. 28	2012	531	42	912
King, John T., Madison, Wis. Revolving frame .....	391,800	Oct. 30	2276	617	45	477
King, John T., assignor to Walker & Co., Madison, Wis. Cylinder printing-machine .....	377,432	Feb. 7	199	28	42	519
King, Joseph, Owensborough, Ky. Plow .....	389,750	Sept. 18	1449	379	44	1362
King, Leonidas J. (See Doggett, John, assignor.) .....						
King, Lewis J., Fair Play, S. C. Tether .....	387,423	Aug. 7	329	84	44	636
King, Morse Canning Company. (See Smyth, William H., assignor.) .....						
King, Peter C., Sycamore, Ohio. Harrow .....	383,305	May 22	2133	563	43	950
King, William. (See Crippen and King.) .....						
King, William A. (See King, Daniel R. and W. A.) .....						
King, William C., Pittsburg, Pa. Leer-pan .....	381,387	Apr. 17	1639	436	43	335
King, William H., assignor of one-half to J. Gildea and J. J. O'Keefe, Kansas City, Mo. Pulley .....	382,042	May 1	252	65	43	559

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
King, William J., assignor of two-thirds to C. L. Ethridge and T. H. Whitlock, Buchanan, Tenn. Hollow grate and feed-water heater.....	379,790	Mar. 20	1361	363	42	1241
King, William S. (See Goodhue, Henry M., assignor.)						
King, William S. (See Gray, Hiram A., assignor.)						
King, William S. (See O'Boyle, Thomas, assignor.)						
King, William S. (See Paine, Gray, and Pettee, assignors.)						
Kingman & Co. (See Cuning, James, assignor.)						
Kingsland, Joseph, Jr., Nutley, N. J. Carpet-stretcher.....	393,909	Dec. 4	262	71	45	1122
Kingsland, Philip S., Chicago, Ill. Balanced governor-valve.....	385,273	June 26	2157	551	43	1564
Kingsley, David W., Liverpool, N. Y. Apparatus for towing canal-boats.....	378,009	Feb. 14	1006	262	42	703
Kingsley, George, Lowell, Mass. Steam-boiler.....	390,235	Oct. 2	59	16, 17	45	15
Kingsley, George H. (See Dean, John, assignor.)						
Kingsley, George H. (See Fish, Oren, assignor.)						
Kingsley, John F., Athens, Pa. Die for making eye-bars.....	384,450	June 12	910	237	43	1302
Kingston, Samuel, East Bridgewater, and W. H. McGinnigle, Brockton, Mass. Detachable sole plate and spike for boots or shoes.....	383,133	May 22	1884	491	43	902
Kinley, Richard M. (See Starr and Kinley.)						
Kinnard, Owen B., Minneapolis, Minn. Baling-press.....	377,942	Feb. 14	913	235	42	686
Kinnard, Will M., Dayton, Ohio. Book-binding.....	379,649	Mar. 20	1155	305	42	1199
Kinnard, Will M., Dayton, Ohio. Book-binding and book.....	381,252	Apr. 17	1444	384	43	296
Kinnard, Will M., Dayton, Ohio. Arm or hand rest.....	384,261	June 12	631	170	43	1251
Kinnard, Will M., Dayton, Ohio. Book-leveler.....	389,891	Sept. 25	1673	442	44	1413
Kinnard, Will M., Dayton, Ohio. Temporary binder.....	394,189	Dec. 11	665	178	45	1207
Kinnear & Co., W. R. (See Kinnear, William R., assignor.)						
Kinnear, William R., Columbus, Ohio. Metallic ceiling.....	382,092	May 1	327	85	43	573
Kinnear, William R., Columbus, Ohio. Metallic ceiling.....	382,093	May 1	328	85	43	573
Kinnear, William R., Columbus, Ohio. Metallic ceiling.....	382,094	May 1	329	86	43	574
Kinnear, William R., Columbus, Ohio. Metallic ceiling.....	388,285	Aug. 21	1691	451	44	914
Kinnear, William R., Columbus, Ohio. Metallic ceiling.....	388,286	Aug. 21	1692	451	44	914
Kinnear, William R., assignor to W. R. Kinnear & Co., Columbus, Ohio. File-box.....	391,751	Oct. 23	2185	589	45	449
Kinnear, William R., assignor to W. R. Kinnear & Co., Columbus, Ohio. File-case.....	391,752	Oct. 23	2186	590	45	449
Kinney, Charles A., Raymilton, assignor of one-third to B. H. Osborn, Franklin, Pa. Wheel-hub.....	378,842	Feb. 28	2342	598	42	956
Kinney, Edwin R., Toledo, Ohio. Metallic wheel.....	390,682	Oct. 9	674	179	45	142
Kinney, G. Irving. (See Brann and Kinney.)						
Kinney, Henry M., et al. (See Hennessy, James F., assignor.)						
Kinney, John J. (See Shaffstall, Nathaniel, assignor.)						
Kinports, Hedwig L., Annville, Pa. Drip-can.....	381,253	Apr. 17	1445	389	43	296
Kinsey, Moses, Newark, N. J. Horse-boot.....	381,388	Apr. 17	1640	436	43	335
Kinsley, Myron H., Niagara Falls, assignor to Oneida Community, (limited,) Community, N. Y. Sash-cord fastener.....	376,314	Jan. 10	833	219	42	168
Kintner, Charles J., New York, N. Y. Electro-magnetic time-lock.....	384,856	June 19	1524	396 397	43	1427
Kintz, Joseph, assignor of one-half to Craighead & Kintz Manufacturing Company, Ballard Vale, Mass. Combined table and lamp.....	384,857	June 19	1527	397	43	1428
Kintz, Joseph, assignor of one-half to Craighead & Kintz Manufacturing Company, Ballard Vale, Mass. Extension-standard for lamps.....	389,577	Sept. 18	1179	309	44	1310
Kintz, Joseph, assignor of one-half to Craighead & Kintz Manufacturing Company, Ballard Vale, Mass. Extension-standard for lamps. (Reissue).....	10,974	Dec. 11	1269	311	45	1310
Kintz, Joseph, Ballard Vale, Mass., assignor to himself and Craighead & Kintz Manufacturing Company, of Massachusetts. Extensible support.....	389,844	Sept. 18	1576	417	44	1387
Kipper, Emil, Adams, Mass. Collar or cuff.....	388,287	Aug. 21	1691	452	44	914
Kirby, Frank E., Detroit, Mich. Ship-building.....	389,892	Sept. 25	1674	442	44	1413
Kirby, Fred G. (See McKenney and Kirby.)						
Kirby, James A., assignor to himself, F. O. Wyatt, and M. Sellers, Chicago, Ill. Railway-switch.....	393,765	Dec. 4	41	13	45	1081
Kirby, John, Jr., Dayton, Ohio. Head-rest for sleeping-cars.....	391,748	Oct. 23	2181	589	45	448
Kirk, Arthur, Sharpsburg, Pa. Coffin-dam.....	385,358	July 3	28	8, 9	44	8
Kirk, Arthur, Sharpsburg, Pa. Navigation-lock.....	385,359	July 3	30	9, 10	44	8
Kirk, Henry B., Mount Pleasant, S. C. Automatic registering gang-board.....	384,370	June 12	802	209	43	1280
Kirk, William, Jr., et al. (See Pfatscher, Matthias, assignor.)						
Kirkby, Lawrence H. (See Brillinger, Levi, assignor.)						
Kirker, Milton B., McKee's Rocks, Pa. Hydraulic valve.....	382,003	May 1	178	46	43	547
Kirker, Milton B., McKee's Rocks, Pa. Hydraulic valve. (Reissue).....	10,943	July 10	1136	301	44	230
Kirker, Milton B., assignor, by mesne assignments, to Pittsburg Tubular Steel Whiffletree Company, Pittsburg, Pa. Whiffletree.....	392,273	Nov. 6	139	35	45	620
Kirkevaag, Peter, Youngstown, Ohio. Eccentric-rod.....	383,735	May 29	2768	729	43	1050
Kirkham, Henry P., Brooklyn, N. Y. Portable caisson.....	381,797	Apr. 24	2233	584 585	43	470
Kirkland, Lynn H. (See Clark, John W., assignor.)						
Kirkland, Rufus Y., Woodhaven, and J. Reed, New York, N. Y. Sink-cleaner.....	388,880	Sept. 4	112	30	44	1094
Kirkland, Thomas A., St. Paul, Minn. Combined jack and clamp.....	391,801	Oct. 30	2377	617	45	471
Kirkman, Marshall M., Evanston, Ill. Freight-record.....	388,881	Sept. 4	112	30	44	1094
Kirkner, Jacob, et al. (See Collins, William H., assignor.)						
Kirkpatrick, Helen M. (See Martin, Andrew J., assignor.)						
Kirkpatrick, John W., Newburyport, assignor to Russia Cement Company, Gloucester, Mass. Package for liquid glue, mucilage, &c.....	377,034	Jan. 31	1900	499	42	393
Kirkpatrick, Robert S., Harlan, Iowa. Book support or holder.....	393,649	Nov. 27	2169	567	45	1033
Kirkpatrick, William W. (See Rock, William S., assignor.)						
Kirks, Albert, assignor to Diebold Safe and Lock Company, Canton, Ohio. Operating mechanism for doors of safes and vaults.....	381,262	June 12	633	170	43	1251
Kirks, Albert, assignor to Diebold Safe and Lock Company, Canton, Ohio. Rivet.....	381,318	June 12	713	189	43	1266
Kirkwood, Thomas, New York, N. Y. Grate for furnaces.....	388,204	Aug. 21	1564	416	44	887
Kirkwood, Thomas, New York, N. Y. Grate for furnaces.....	393,307	Nov. 20	1645	434	45	929
Kirkwood, Thomas, Chicago, Ill. Grate for furnaces.....	390,376	Oct. 2	253	68	45	51
Kirkwood, William, Guelph, Ontario, Canada. Sectional water-heater.....	388,418	Aug. 28	1894	506	44	956
Kirlin, Otis, Webster, Dak. Ter. Vehicle-brake.....	393,476	Nov. 27	1912	500 501	45	988
Kirsch, Richard, Bay Ridge, N. Y. Submerged paddle-wheel.....	392,346	Nov. 6	253	64	45	642
Kirstein, Henry E., Rochester, N. Y. Eyeglasses.....	393,986	Dec. 4	371	100	45	1142
Kirstein, Henry E., Rochester, N. Y. Eyeglasses.....	393,987	Dec. 4	372	101	45	1143
Kirtley & Phillips. (See Phillips, Hiram, assignor.)						
Kirwan, George H., Wilkes-Barré, Pa. Electric railway-station indicator.....	388,690	Aug. 28	2277	611 612	44	1030



*Alphabetical list of patents—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Kiser, John H. (See Engelman and Kiser.)						
Kiser, Lambert J., et al. (See Dubinski, Benjamin, assignor.)						
Kiser, William J., et al. (See Dubinski, Benjamin, assignor.)						
Kissell, Abraham S., Chicago, Ill. Dust-proof thermostat.	380,394	Apr. 3	131	39	43	28
Kissner, Leonard, Lancaster, Ohio, assignor to Hocking Valley Manufacturing Company.						
Means for operating feed-rolls.	380,379	Apr. 3	413	118	43	84
Kister, William H., Chicago, Ill. Combined letter-sheet and envelope.	381,558	Apr. 24	1897	500	43	404
Kistler, Aaron B., Aquashicola, Pa. Paint-brush bridle.	380,120	Mar. 27	1884	501	42	1350
Kistler, Caspar, Sterling, Ill. Stem winding and setting watch.	392,580	Nov. 6	588	148	45	708
Kitchell, Joseph G., New York, N. Y. Safety-buckle.	384,984	June 26	1704	442	43	1471
Kitchingman, Edwin L., Collingwood, Victoria, assignor to one-half to A. Andrews, Albury, New South Wales. Paint for coating ships.	377,810	Feb. 14	725		42	648
Kite, Edward, Pittsburg, Ind. Differential gear for traction-engines.	376,528	Jan. 17	1140	298	42	233
Kitson, Arthur, Philadelphia, Pa. Carbureting gas-lamp.	381,934	May 1	48	13	43	524
Kitson, Arthur, Philadelphia, Pa. Carbureting gas-lamp.	385,673	July 3	506	130	44	98
Kitson, George L., and J. Reagan, Philadelphia, Pa. Grate-bar.	388,691	Aug. 28	2280	{ 612 613 }	44	1030
Kitson Machine Company. (See Rice, David H., assignor.)						
Kitson, William H., Kirkstall, near Leeds, county of York, England. Railway-wheel.	375,879	Jan. 3	203	56	42	43
Kittell, Ferdinand A., Hollidaysburg, Pa. Collection-box.	383,579	May 29	2545	672	43	1033
Kittinger, Levi, Akron, Ohio. Match-machine.	377,943	Feb. 14	914	{ 236 237 }	42	686
Kittinger, Levi, Akron, Ohio. Match-machine tray.	378,010	Feb. 14	1007	263	42	703
Kittle, Stephen Y., Wilkes-Barre, Pa. Carving-machine.	386,710	July 24	2020	532	44	419
Kittoe, Edmund F., assignor to Holbrook & Kane Company, Chicago, Ill. Ventilator.	395,282	Dec. 25	2421	620	45	1563
Kittredge, Anson O., Slate Hill, N. Y., assignor to J. S. Thorn, Philadelphia, Pa. Metallic roofing plate or shingle.	390,236	Oct. 2	60	17	45	16
Kittredge, Anson O., Slate Hill, and B. Adriance, Brooklyn, N. Y., assignors to Vulcan Company, of Pennsylvania. Sheet-metal-scroll cutter.	383,398	May 22	2264	602	43	973
Kittson, George L., and J. Reagan, Philadelphia, Pa. Grate-bar.	391,052	Oct. 16	1231	{ 327 328 }	45	253
Kitzmiller, Edward A., Braddock, assignor to Eclipse Cigar Machine Company, (limited), Pittsburg, Pa. Cigar-bunching machine.	391,976	Oct. 30	2528	{ 684 685 }	45	527
Kjoller, Anders P., Holyoke, Mass. Friction-clutch pulley.	384,915	June 19	1605	417	43	1442
Kjollerfeldt, Emil A., and W. Kolnotsch, Helsingfors, Finland, Russia. Cigarette-machine.	393,650	Nov. 27	2171	{ 567 568 569 570 }	45	1043
Klander, Charles L., Philadelphia, Pa. Dyeing or scouring machine.	377,393	Feb. 7	40	12	42	503
Klans, Wenzel F., San Antonio, Tex. Spring-connection for pump-rods.	390,683	Oct. 9	674	179	45	142
Kleemann, Ferdinand, Oberrückheim, Württemberg, Germany. Apparatus for cleaning knives and forks.	392,870	Nov. 13	1024	262	45	800
Kleemann, John O. (See Sheehan and Kleemann.)						
Klein, Adolph A., Philadelphia, Pa. Wash-boiler.	379,582	Mar. 20	1060	282	42	1181
Klein, Henry E. (See Klein, Henry S. and H. E.)						
Klein, Henry S., Milwaukee, Wis., and H. E. Klein, Chicago, Ill. Window.	392,924	Nov. 13	1094	283	45	813
Klein, Samuel, and A. Schattels, Lugos, Austria-Hungary. Composition for filling up cracks in barrels and other vessels.	378,596	Feb. 28	1875		42	886
Kleindinst, William. (See George and Kleindinst.)						
Kleinert, Isaac B., New York, N. Y., and R. C. Manville, Waterbury, Conn.; said Manville assignor to said Kleinert. Ear-muff.	381,559	Apr. 24	1898	500	43	404
Klemmer, Johann. (See Michels and Klemmer.)						
Klima, Martin, Tabor, Wis. Feed-cutter.	392,925	Nov. 13	1095	284	45	814
Kling, Charles L., Steubenville, Ohio. System of car-heating.	378,782	Aug. 14	801	207	44	732
Kline, David, Highville, Pa. Hay-manger.	376,529	Jan. 17	1140	299	42	233
Kline, Henry H. (See Kline, William D., assignor.)						
Kline, Lewis A. (See Neal, Frank S., assignor.)						
Kline, Lewis F., Alpena, Mich. Steam-feed valve.	384,263	June 12	634	171	43	1252
Kline, Lewis T., Bay City, Mich. Log-rolling device.	377,717	Feb. 7	549	140	42	598
Kline, Samuel L., assignor of one-half to E. E. Stamp, Cassopolis, Mich. Fence-making machine.	379,791	Mar. 20	1365	363	42	1241
Kline, William D., assignor of one-half to H. H. Kline, Molltown, Pa. Boot or shoe.	376,154	Jan. 10	612	165	42	128
Kling, John, Jr., Philadelphia, Pa. Sectional steam-generator.	376,098	Jan. 10	523	140	42	112
Kling, Peter, Hayes, Tex. Wheel-planter.	387,521	Aug. 7	478	{ 125 126 }	44	666
Kling, Peter M., St. Louis, Mo. Dust-guard for car-axle boxes.	384,530	June 12	1034	270	43	1325
Kling, Peter M., St. Louis, Mo. Sliding door for street-cars.	394,774	Dec. 18	1604	421	45	1402
Klingler, George J. (See Clark and Klingler.)						
Klinik, Constantin C., F. Pinkowski, and A. Sollmann, Königshütte, Prussia, Germany. Drawing-chain.	382,043	May 1	253	65	43	559
Klinik, Constantin, and F. Pinkowski, Königshütte, and A. Gross, Beuthen, Prussia, Germany. Safety device for elevators.	384,319	June 12	714	190	43	1266
Klinka, Charles J., assignor of one-fourth to P. Schwartz, Milwaukee, Wis. Hand-planter.	391,749	Oct. 23	2181	589	45	448
Klinker, Wesley, Union Mills, Iowa. Railway-car.	390,865	Oct. 9	929	245	45	188
Kloeb, Joseph A., Dunkirk, Ind. Gas-burner.	391,537	Oct. 23	1899	510	45	390
Klönne, August, Dortmund, Prussia, Germany. Apparatus for beating retorts and muffles.	378,097	Feb. 21	1127	295	42	735
Klönne, August, Dortmund, Prussia, Germany. Gas-washer.	380,040	Mar. 27	1768	473	42	1327
Klotz, Charles A., Vallejo, Cal. Air-feeder.	390,129	Sept. 25	2020	538	44	1484
Klotzbach, A. F. (See Ran, John, assignor.)						
Kluber, Moses H., Dodge City, Kans. Medicated or tonic beer.	386,250	July 17	1360		44	280
Knaak, Frank C. F. (See Abbot and Knaak.)						
Knaak, Frank C. F., New York, N. Y. Apparatus for bathing purposes.	377,394	Feb. 7	42	12	42	503
Knaggs, Christopher, Detroit, Mich. Grate or ash-pan bar.	386,474	July 24	1691	445	44	357
Knapp, Edmund B., San Jacinto, Cal. Bridle winker attachment.	377,563	Feb. 7	319	82	42	556
Knapp, Edward. (See Barnard and Knapp.)						
Knapp, George, et al. (See Beisel, Franklin P., assignor.)						
Knapp, George W., Baltimore, Md. Milk-strainer.	383,307	May 22	2135	563	43	950
Knapp, George W., Baltimore, Md. Die for the manufacture of cans.	388,288	Aug. 21	1695	452	44	914
Knapp, George W., Baltimore, Md. Die for forming can-bodies.	388,289	Aug. 21	1697	452	44	915
Knapp, Henry F., New York, N. Y. Deepening harbor-bars.	390,237	Oct. 2	61	17	45	16
Knapp, John L., J. C. McKenzie, and W. Humphrey, Adrian, Mich. Brick-sanding machine.	376,316	Jan. 10	836	220	42	169
Knapp, William H., Brooklyn, N. Y. Dress-form.	383,470	May 29	2366	635	43	1003

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Knapp, William H., Brooklyn, N. Y. Dress-form .....	381,531	June 12	1034	270	43	1325
Knapp, William H., Brooklyn, N. Y. Dress-form .....	387,563	Aug. 7	560	{ 146 147 }	44	680
Knapp, William H., assignor of one-half to J. P. Bristol, Galesburg, Mich. Two-wheeled vehicle .....	377,718	Feb. 7	551	140	42	598
Knaub, George. (See Knaub, Henry and G.)						
Knaub, Henry, York, and G. Knaub, Spring Garden, Pa. Coupling for steam-pipes .....	378,932	Mar. 6	103	{ 29 30 }	42	986
Knauss, George L., Allentown, Pa., assignor to Hyatt School Slate Company, (limited.) Machine for making school-slate frames .....	383,955	June 5	167	49, 50	43	1152
Kneass, Strickland L., assignor to W. Sellers & Company, Philadelphia, Pa. Injector .....	376,315	Jan. 10	833	220	42	169
Knecht, Victor E. (See Barrath, Edward, assignor.)						
Kneeland, Sylvanus R., Boston, Mass. Lamp-shade .....	386,475	July 24	1691	445	44	357
Knell, John, Philadelphia, Pa. Shoe-maker's pinchers .....	379,476	Mar. 13	889	{ 239 240 }	42	1141
Knell, John, Philadelphia, Pa., assignor to Whitchee & Emery, Boston, Mass. Combined shoe-maker's pinchers and hammer .....	393,014	Nov. 20	1237	321	45	848
Kuerr, Henry E., New Orleans, La. Machine for cleaning cotton-seed .....	377,621	Feb. 7	405	102	42	573
Kneuper, George, New York, N. Y. Atomizer .....	380,041	Mar. 27	1769	473	42	1327
Kneuper, George, New York, N. Y. Atomizer .....	394,775	Dec. 18	1604	421	45	1492
Knickerbocker, Charles R., assignor to Knickerbocker Company, Jackson, Mich. Dust-collector .....	382,614	May 8	1119	288	43	733
Knickerbocker Company. (See Knickerbocker, Charles R., assignor.)						
Knickerbocker Company. (See Morse, Orville M., assignor.)						
Knieper, Julius L., Grand Rapids, Mich. Chair .....	379,959	Mar. 27	1647	438	42	1304
Kniese, Frederick C., Baltimore, Md. Manufacturing water-gas .....	377,564	Feb. 7	319	82	42	556
Kniffler, Bruno, Cleveland, Ohio. Flour-dresser .....	381,020	Apr. 10	1083	287	43	219
Kniffler, Bruno, Cleveland, Ohio. Bolting-reel .....	382,095	May 1	331	86	43	574
Knight, Aaron R., W., Peaserville, Pa. Oil-can or other vessel .....	379,517	Mar. 13	958	258	42	1154
Knight, Edgar, Saybrook, Conn. Letter-scale and coin-tester .....	388,138	Aug. 21	1460	392	44	868
Knight, Frank H., Washington, D. C. Hinge .....	377,310	Jan. 31	2301	609	42	470
Knight, Isaac N., Boise City, Idaho Ter., assignor to himself and G. A. Lowe, Salt Lake City, Utah Ter. Ditching-machine .....	388,566	Aug. 28	2098	563	44	996
Knight, John, San Francisco, Cal., assignor to Pacific Indicator Company, of California. Station-indicator .....	388,980	Sept. 4	258	68	44	1122
Knight, John, San Francisco, Cal., assignor to Pacific Indicator Company, of California. Mechanism for operating station-indicators .....	394,074	Dec. 4	493	132	45	1166
Knight, John H., Buffalo, N. Y. Current water-wheel .....	384,916	June 19	1607	418	43	1443
Knight, John J., Toronto, Ontario, Canada. Draw-head for railway-cars .....	388,882	Sept. 4	114	30	44	1094
Knight, Reneselaer A., Chelsea, assignor to A. F. Estabrook, Boston, Mass. Box-opener .....	389,228	Sept. 11	656	168	44	1204
Knight, Samuel N., Sutter Creek, and I. P. Lambing, Lone, Cal. Dredging-machine .....	385,759	July 10	645	167	44	134
Knight, Thaddeus W., Kyle, Tex. Cotton-sweep .....	382,533	May 8	995	252	43	708
Knight, Walter, San Andreas, Cal. Vehicle-wheel .....	375,940	Jan. 3	292	78	42	60
Knight, Walter H., New York, N. Y. Electric-motor car .....	377,622	Feb. 7	406	102	42	573
Knight, Walter H., New York, N. Y. Electrically-propelled vehicle .....	382,990	May 15	1637	429	43	844
Knight, Walter H., New York, N. Y. Rheostat .....	384,044	June 5	303	86	43	1178
Knight, Walter H., New York, N. Y. Overhead wire-connection for electric railways .....	386,784	July 24	2130	560	44	438
Knight, Walter H., New York, N. Y. Electrically-propelled vehicle .....	389,229	Sept. 11	658	169	44	1204
Knight, Walter H., New York, N. Y. Motor-box for electric vehicles .....	389,230	Sept. 11	660	169	44	1205
Knight, Walter H., New York, N. Y. Armature-winding for dynamo-electric machines .....	389,658	Sept. 18	1318	345	44	1335
Knight, William A., Albany, N. Y., assignor to Singer Manufacturing Company of New Jersey. Barring device for button-hole sewing-machines .....	394,580	Dec. 18	1273	{ 333 334 }	45	1336
Knipper, Otto, assignor of one-half to C. Spooner, Bridgeport, Conn. Wooden faucet .....	382,166	May 1	422	110	43	591
Kniphals, Heinrich, Davenport, Iowa. Neck-yoke guard .....	376,009	Jan. 10	525	140	42	112
Knobloch, John P., Philadelphia, Pa. Awning-ventilator .....	380,207	Mar. 27	1099	535	42	1373
Knoblanck, Henry B., Washburn, Ill. Awning .....	394,120	Dec. 4	559	150	45	1178
Knode, Zachariah U. (See Young and Knode.)						
Knollin, Edward M., Lacona, N. Y. Traction-engine .....	388,692	Aug. 28	2282	613	44	1031
Knop, Alvin. (See Cockings and Mulvaney, assignors.)						
Knopp, Andrew W. (See Knopp, Edward L., assignor.)						
Knopp, Charles, Winona, Minn. Shoe-fastening .....	382,651	May 8	1176	304	43	745
Knopp, Edward L., assignor of one-half to A. W. Knopp, St. Louis, Mo. Roll-paper cutter .....	394,121	Dec. 4	560	150	45	1178
Knott, Kennard, Chicago, Ill. Valve-gear .....	379,400	Mar. 13	776	{ 209 210 }	42	1119
Knott, Robert. (See Mehl and Knott.)						
Knoss, John, Hartford, Conn., assignor to Pope Manufacturing Company, Portland, Me. Velocipede-saddle .....	382,430	May 8	827	212	43	676
Knowles, Edward R., Brooklyn, assignor to A. M. Kalbfleisch, New York, N. Y., and Mutual Electric Manufacturing Company, of New York. Electric-arc lamp .....	379,792	Mar. 20	1366	364	42	1242
Knowles, Edward R., Brooklyn, N. Y., assignor to Mutual Electric Manufacturing Company, of New York. Regulator for electric currents .....	381,254	Apr. 17	1446	389	43	296
Knowles, Elmer E., assignor to Hollenbeck Lock and Knob Company, Syracuse, N. Y. Latch .....	389,390	Sept. 11	901	235	44	1252
Knowles, Francis B., et al., executors. (See Knowles, Lucius J.)						
Knowles, George E., et al. (See Chidester, David D., assignor.)						
Knowles, Hugh A., administrator. (See Knowles, Lewis G.)						
Knowles, Lewis G., deceased; H. A. Knowles, New York, N. Y., administrator. Gato .....	385,517	July 3	275	71	44	56
Knowles Loom Works. (See Hentkins, George F., assignor.)						
Knowles Loom Works. (See Wattie, William, assignor.)						
Knowles, Lucius J., deceased, Worcester, Mass.; F. B. Knowles and H. A. Marsh executors. Weft stop-motion for looms .....	376,774	Jan. 21	1528	402	42	315
Knowles, Lucius J., deceased, Worcester, Mass.; F. B. Knowles and H. A. Marsh executors. Weft stop-motion for looms .....	376,775	Jan. 21	1530	403	42	316
Knowles, Lucius J., deceased, Worcester, Mass.; F. B. Knowles and H. A. Marsh executors. Weft stop-motion for looms .....	376,776	Jan. 24	1532	403	42	316
Knowles, Lucius J., deceased, Worcester, Mass.; F. B. Knowles and H. A. Marsh executors. Weft stop-motion for looms .....	376,777	Jan. 24	1534	404	42	316
Knowles, William A., Alameda, Cal. Dental engine .....	385,812	July 10	714	187	44	147
Knowles, William A., Alameda, Cal. Dental engine .....	386,476	July 24	1692	446	44	357
Knowles, William A., Alameda, Cal. Dental engine .....	395,150	Dec. 25	2214	568	45	1526
Knowles, William R., Columbiana, Ohio. Harness-saddle .....	383,956	June 5	170	50	43	1153
Knowlton, Dallas, Brantford, Ontario, Canada. Car brake and starter .....	388,205	Aug. 21	1565	416	44	887
Knowlton, George K., Hamilton, Mass. Skimmer .....	387,236	Aug. 7	54	12	44	582
Knowlton, Mark D., Chicago, Ill. Punch .....	384,532	June 12	1036	270	43	1325

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Knox, Charles B., <i>et al.</i> (See Hillman, Judson C., assignor.)						
Knox, David, Lynn, Mass. Leather-splitting machine	388,419	Aug. 28	1895	506	44	956
Knox, George A., Lynn, Mass. Machine for molding heel-stiffeners for boots or shoes	383,580	May 29	2545	672	43	1033
Knox, George A., Lynn, Mass. Heel-stiffener machine	392,564	Nov. 6	563	142	45	703
Knox, James W. (See Pell and Knox.)						
Knox, Richard F. (See Eagan, George L., assignor.)						
Knox, Washington I., Terrell, Tex. Planter	391,374	Oct. 16	1677	444	45	327
Knudtson, Thurston L., and J. Uhri, Chicago, Ill. Adjustable side guide for printing-presses	383,816	May 29	2911	768	43	1106
Koch, Adolph P. and W. C., Ethingham, Ill. Neck-yoke fastening	380,492	Apr. 3	270	74	43	56
Köch, Eberhard, assignor of one-half to C. J. Allen, New Orleans, La. Distilling pine-wood for the production of crude dry turpentine and pine-tar	386,138	July 17	1186		44	248
Koch, Joseph. (See Koch, Moris F., assignor.)						
Koch, Joseph, <i>et al.</i> (See Gross, Magaus, assignor.)						
Koch, Moris F., assignor to J. Koch, Philadelphia, Pa. Folding bed	393,708	Nov. 27	2254	{ 591 592 }	45	1059
Koch, Moritz, St. Louis, Mo. Eaves-gutter hanger	388,495	Aug. 28	1999	538	44	978
Koch, William, New York, N. Y. Quilting-machine	379,477	Mar. 13	890	{ 239 241 }	42	1142
Koch, William, New York, N. Y. Quilting-machine	379,478	Mar. 13	895	{ 241 242 }	42	1142
Koch, William, New York, N. Y. Mechanical movement	379,479	Mar. 13	898	{ 242 243 }	42	1143
Koch, William, New York, N. Y. Shuttle carrier for quilting-machines	379,480	Mar. 13	899	{ 243 244 }	42	1143
Koch, William, New York, N. Y. Quilting-machine	381,798	Apr. 24	2234	585	43	470
Koch, William C. (See Koch, Adolph P. and W. C.)						
Kochenderfer, Sirus E., Hollidaysburg, Pa. Balance-escapement for watches	386,592	July 24	1860	491	44	387
Kochendorfer, George, and J. Roth, Marysville, Ohio. Cuspider	380,631	Apr. 3	483	136	43	98
Kocher, William, and W. J. Ranck, assignors of one-third to L. R. Young, Lockbourne, Ohio. Corn-planter	381,076	Apr. 10	1179	313	43	238
Kochsmeier, Henry P., Freeport, Ill. Bracket	381,389	Apr. 17	1641	436	43	336
Kochsmeier, Henry P., Freeport, Ill. Spring-hinge	3-5,312	June 26	2218	569	43	1574
Kochsmeier, Henry P., and G. M. Waldorf, Freeport, Ill. Spring-hinge. (Reissue)	10,896	Jan. 31	2390	690	42	486
Koebel, John, Milwaukee, Wis. Ornamentation of sheet metal	381,390	Apr. 17	1641		43	336
Koehler, John M., assignor to T. Devlin & Co., Philadelphia, Pa. Saw-rod	388,779	Aug. 28	2410	650	44	1055
Koehlin, Albert, Mülhausen, Alsace, Germany. Apparatus for moistening the atmosphere in mills, factories, &c.	384,630	June 19	1185	{ 312 313 }	43	1362
Koegel, Charles, assignor of two-thirds to D. P. Williams, Holyoke, Mass. Machine for cutting paper	391,750	Oct. 23	2182	589	45	449
Koegel, Henry C. (See Warter and Koegel.)						
Koehler, Theodore, New York, N. Y. Bracket	390,302	Oct. 2	139	39	45	31
Koeller, Samuel W. (See Mills and Koeller.)						
Koelsch, May V., Delafield, Wis. Soap-receptacle	389,930	Sept. 25	1728	457	44	1424
Koen, Joseph, assignor of one-half to J. H. Kennedy, Oneida, N. Y. Machine for cutting scrolls on ends of bars	378,168	Feb. 21	1238	326	42	754
Koenig, John H., Cincinnati, Ohio. Fountain and feed attachment for writing-pens	389,156	Sept. 4	541	136	44	1172
Koenig, Nicolas, North Tarrytown, assignor to J. Brombacher's Sons, New York, N. Y. Machine for folding sheet metal	380,550	Apr. 3	414	118	43	84
Koepppe, Bernhard, Kearney, Neb. Windmill	387,424	Aug. 7	330	85	44	636
Koerber, Jacob, New York, N. Y. Machine for winding bobbins	387,080	July 31	2590	682	44	535
Koerner, Alfred C., Paris, France, assignor to Hotchkiss Ordnance Company, (limited,) of England. Elastic pedestal for mounting guns	381,475	Apr. 17	1771	473	43	361
Koerner, Alfred C., Paris, France, assignor to Hotchkiss Ordnance Company, (limited,) London, England. Breech mechanism for ordnance	393,436	Nov. 27	1838	484	45	975
Koerner, Alfred C., Paris, France, assignor to Hotchkiss Ordnance Company, London, England. Firing mechanism for ordnance	394,190	Dec. 11	667	179	45	1207
Koerner, Frank J., <i>et al.</i> (See Grelle, Henry W., assignor.)						
Koerner, Herman T., Buffalo, N. Y. Printer's drying-rack	392,735	Nov. 13	825	209	45	760
Koessling, Rudolph F., and W. Mecklenburg, Clermont, Iowa. Standard for wagon-bolsters	381,627	Apr. 24	1997	524	43	424
Kohler, Edward, West Oakland, and M. Lachman, San Francisco, Cal. Revolving hook for sewing-machines	393,766	Dec. 4	47	14	45	1081
Kohler, Frederick E., Canton, Ohio. Tricycle	381,144	Apr. 17	1291	345	43	268
Kohler Improved Cattle Car Company. (See Miller and Seitz, assignors.)						
Kohler Improved Cattle Car Company. (See Seitz, Nathaniel Z., assignor.)						
Kohner & Co. (See Brab, August, assignor.)						
Koken, Ernest E., St. Louis, Mo. Chair	392,174	Oct. 30	2842	770	45	587
Kolb, Andrew. (See Tuttle, Lewis C., assignor.)						
Kolb, Valentine, <i>et al.</i> (See Wing, Hiram J., assignor.)						
Kolb, Carl, assignor to F. von Heyden, Nachfolger, Radebeul, Saxony, Germany. Manufacture of salicylic acid ester	377,311	Jan. 31	2303		42	471
Kolb, Carl, assignor to F. von Heyden, Nachfolger, Radebeul, Saxony, Germany. Manufacture of salicylic-acid esters	383,306	May 22	2134		43	950
Kolnotsch, Wladislav. (See Kjöllfeldt and Kolnotsch.)						
Kölzer, Joseph, Duisburg, Prussia, Germany. Telegraph-repeater	376,661	Jan. 17	1346	{ 353 354 }	42	272
Kölzer, Joseph, Duisburg, Prussia, Germany. Telegraphic repeater	379,203	Mar. 6	491	138	42	1059
Koneman, William A., Magdalena, N. Mex. Ter. Fore-hearth for lead-smelting furnaces	390,785	Oct. 9	817	{ 217 218 }	45	163
Koneman, William A., Chicago, Ill. Amalgamating apparatus	394,493	Dec. 11	1114	290	45	1293
Konigsberg, Gabriel, Denver, Colo. Ornamental structure for monuments	393,437	Nov. 27	1839	484	45	975
Konitzky, J. Henry, Philadelphia, Pa. Combined bearing and stuffing box for rudders	383,646	May 29	2639	699	43	1054
Kontizky, J. Henry, Philadelphia, Pa. Steering apparatus	385,936	July 10	902	240	44	185
Kookogey Electric Company. (See Kookogey, William P., assignor.)						
Kookogey, William P., Brooklyn, N. Y., assignor to Kookogey Electric Company. Electric battery	385,760	July 10	646	{ 167 168 }	44	134
Koon, Joseph. (See Day, Joseph, assignor.)						
Koon, Joseph, New Haven, Conn., assignor to L. Schiele & Co., New York, N. Y. Corset	382,478	May 8	914	231	43	692
Koon, Joseph, New Haven, Conn., assignor to L. Schiele & Co., New York, N. Y. Corset	385,559	July 3	344	89	44	69
Koontz, Ezra P., Ligonier, Ind. Implement for exterminating rodents	382,708	May 15	1358	329	43	769
Koontz, Middleton H., Zela, W. Va. Nut-lock	386,834	July 31	2342	559	44	467
Kopisch, William, Blue Hill, Neb. Door-hanger	391,053	Oct. 16	1234	328	45	254
Koplin, Abraham B., assignor to himself and J. S. Hess & Bro., Hellertown, Pa. Street-curb	379,401	Mar. 13	778	210	42	1119

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'g.	Vol.	Page.
Koplin, William, New Castle, Pa. Spike-machine.....	393,438	Nov. 27	1840	{ 484 485 }	45	976
Kopp, Godfrey. (See McCloskey, William, assignor.)						
Kepp, John, Cincinnati, Ohio. Bridge for violins.....	388,883	Sept. 4	111	31	41	1094
Kopplin, Frank, and P. Brennan, Chicago, Ill. Vehicle running-gear.....	389,968	Sept. 25	1774	{ 470 471 }	44	1434
Kops, Samuel, Philadelphia, Pa. Lining for the fire-pots of stoves.....	394,494	Dec. 11	1116	290	45	1293
Kortenbach & Rank. (See Pieper, Carl, assignor.)						
Körting, Ernst, Hanover, Prussia, Germany. Gas-engine.....	377,623	Feb. 7	407	103	42	573
Körting, Ernst, Hanover, Prussia, Germany. Valve-gear.....	388,290	Aug. 21	1698	453	44	915
Kosakoff, Jacob. (See List and Kosakoff.)						
Koss, John V., North Yakima, Wash. Ter. Rail-joint.....	382,815	May 15	1399	367	43	797
Köstner, Joseph, Munich, Bavaria, Germany. Billiard-table.....	393,940	Dec. 4	263	71, 72	45	1122
Kotlarevsky, Paul, St. Petersburg, Russia. Current-meter.....	380,262	Mar. 27	2072	554	42	1359
Kötting, Paul, Berg-Gladbach, near Cologne, Prussia, Germany. Bottle-stopper.....	389,707	Sept. 18	1389	363	44	1349
Köttyra, Maxymilian, assignor to C. Buhman and A. B. Tiffen, Cardiff, county of Glamorgan, England. Electrical apparatus for the prevention of incrustation.....	392,736	Nov. 13	826	209	45	760
Koyl, C. Herschel, Swarthmore, Pa. Railway semaphore-signal.....	384,170	June 5	488	134	43	1216
Kraatz, Henry W. and T. L., St. Louis, Mo. Case for exhibiting decorative art.....	392,038	Oct. 30	2621	712	45	545
Kraatz, Theodore L. (See Kraatz, Henry W. and T. L.)						
Kraetzer, Edwin J., Boston, Mass. Fastener for gloves, &c.....	381,703	Apr. 24	2102	550	43	445
Kraetzer, Edwin J., Boston, Mass., assignor to International Fastening Company, Portland, Me. Fastener for gloves, &c.....	381,935	May 1	50	14	43	524
Kraetzer, Edwin J., Boston, Mass., assignor to International Fastening Company, Portland, Me. Glove-fastener.....	382,366	May 8	736	186	43	659
Kraft, Charles S., Albany, N. Y. Pool-register.....	383,581	May 29	2547	673	43	1033
Kramer, Camillo, Albany, N. Y. Wheel.....	390,977	Oct. 9	1104	292	45	221
Kramer, Frederick, Los Angeles, Cal. Roof-climbing device.....	380,395	Apr. 3	133	40	43	28
Kramer, Henry W., Newtonville, Ind. Wheel hay-rake.....	386,593	July 24	1861	491	44	388
Kramer, Samuel, and J. Levy, New York, N. Y. Jersey-stay.....	378,597	Feb. 28	1875	496	42	886
Kramer, Samuel R., Gahanna, Ohio. Berry or fruit crate.....	378,098	Feb. 21	1129	295	42	735
Kramer, William R., Delphos, Ohio. Washing-machine.....	392,951	Nov. 13	1139	296	45	822
Kraus, Jacob W., Sterling, Ohio. Cultivator.....	388,206	Aug. 21	1567	{ 416 417 }	44	887
Krause, Bernard, O'Fallon Depot, Ill. Combination-spectacles.....	378,965	Mar. 6	145	42	42	994
Krause, C. William, Chicago, Ill. Drive-chain.....	379,115	Mar. 6	372	106	42	1035
Krause, Emil C., Stockbridge, Wis. Fence for intercepting insects.....	392,347	Nov. 6	251	65	45	642
Krause, Frederick W., Sand Creek, Wis. Horse-collar pad.....	378,655	Feb. 14	1061	279	42	715
Krause, Frederick W., Sand Creek, Wis. Horse-collar pad.....	389,478	Sept. 11	1028	274	44	1275
Krause, Henry C., and B. Harris, Lake Linden, Mich. Conveyor.....	379,704	Mar. 20	1238	329	42	1216
Krause, Horatio S. (See Gleich and Krause.)						
Krause, Horatio S. (See Gleich, Krause, and Chenery.)						
Krause, Irwin Y. (See Peters, John, assignor.)						
Krauser, John L., Leeper, Pa. Head-rest for coffins.....	377,164	Jan. 31	2085	548	42	430
Krauss, Wilhelm, Halle-on-the-Saale, Saxony, assignor of two-fifths to W. Kumpfmueller, Munich, Germany. Cylinder relief-value.....	391,163	Oct. 16	1387	369	45	281
Krantz, Joseph G. (See Ware, Joseph G., assignor.)						
Kravik, Ole O., St. Carl, Dak. Ter. Gearing.....	386,591	July 24	1862	492	44	388
Krebs, George L. (See Solter, John, assignor.)						
Krebs, Otto, Pittsburg, Pa. Transferring phototypes to lithographic stones.....	383,308	May 22	2136		43	950
Kree, Hiram C., assignor of two-thirds to J. D. Cool and C. A. Curtis, Freeport, Mich. Reclining-chair.....	383,058	May 15	1765	456	43	869
Kreh, Charles F. (See Dill, Joshua A., assignor.)						
Kremp, D. & E. (See Leightnam, Joseph, assignor.)						
Krenning, Francis H., Jr., et al. (See Castillo, William M., assignor.)						
Kreps, John W., Allegheny, Pa. Barrow-wheel.....	394,703	Dec. 18	1472	384	45	1373
Kretsinger, Frederick S., Fort Madison, Iowa. Grain-cradle.....	376,317	Jan. 10	837	221	42	169
Kreutzkamp, Henry G. C. and L. A., New York, N. Y. Elevator.....	392,955	Nov. 13	1141	{ 296 297 }	45	832
Kreutzkamp, Louis A. (See Kreutzkamp, Henry G. C. and L. A.)						
Krieger, George F., Chicago, Ill. Fastening device for shoes, gloves, &c.....	380,327	Apr. 3	28	8, 9	43	8
Krieger, Joseph. (See Matthiessen and Krieger.)						
Krieser, J. Moritz, Brooklyn, assignor to Mystic Oil Company, New York, N. Y. Apparatus for vaporizing liquids.....	384,768	June 19	1383	362	43	1401
Kriete, Henry W., Sumnerville, S. C. Truss.....	388,365	Aug. 21	1822	484	44	936
Krikorian, Casbar G., Smyrna, Turkey. Knockdown box.....	391,538	Oct. 23	1900	510	45	390
Krippendorf, Charles H. (See Blakeney, George, assignor.)						
Kritch, Jacob. (See Cochran, Josephine G., assignor.)						
Krnka, Karl. (See Krnka, Silvester and K.)						
Krnka, Silvester and K., Ober-Miehle, near Prague, Austria-Hungary. Magazine fire-arm.....	386,638	July 24	1913	{ 506 507 }	44	399
Kroeck, Philip M. (See Roberts, Frank E., assignor.)						
Kroegher, William C., Allegheny, Pa. Die for welding links.....	377,395	Feb. 7	43	42	42	504
Kroh, Oly C., Ripon, Cal. Combined roller and grain-drill.....	393,829	Dec. 4	154	42	45	1101
Kronberg, Carl, Werden, Prussia, Germany. Buckle.....	386,055	July 10	1081	291	44	221
Kroner, Otto, Sandusky, Ohio. Friction-coupling.....	385,122	June 26	1929	492	43	1517
Kronenberg, Edward, Philadelphia, Pa. Synchronizing mechanism for clocks.....	393,159	Nov. 20	1428	373	45	886
Kroog, Johann, Halle-on-the-Saale, Prussia, Germany. Appliance for locking filter-presses.....	379,518	Mar. 13	958	258	42	1154
Kroog, Johann, Halle-on-the-Saale, Prussia, Germany. Combined filter and cake-press.....	387,594	Aug. 7	611	159	44	689
Kroupa, Joseph, St. Louis, Mo. Car-coupling.....	380,684	Apr. 10	577	158	43	425
Krout, Levi R., North Wales, Pa. Washing-machine.....	392,318	Nov. 6	255	65	45	643
Krueger, Charles. (See Burke and Krueger.)						
Krueger, Theodore F., New York, N. Y. Pipe-wrench.....	379,518	Mar. 13	959	258	42	1154
Kruesi, Conrad, Chicago, Ill. Window sash and frame.....	383,134	May 22	1885	492	43	903
Kruger, John W., Litchfield, Minn. Fabric-measuring apparatus.....	381,812	Apr. 24	2317	602	43	485
Kruger, Rudolph C. (See Dibbern and Kruger.)						
Krumscheid, Jacob, Boston, Mass. Multiple divider.....	381,500	Apr. 21	1899	500	43	404
Krumscheid, Peter, Boston, Mass. Action for upright pianos.....	384,917	June 19	1608	418	43	1443
Kruse, J. Henry, and L. A. Smith, Akron, Ohio. Boiler-feeder.....	379,520	Mar. 13	960	259	42	1155
Kruse, J. Henry, and L. A. Smith, Akron, Ohio. Feed-water purifier.....	387,425	Aug. 7	332	85	44	637
Kruse, Mary M. (See Smith, Henry J., assignor.)						
Krutzsch, Herman, St. Louis, Mo. Brick-machine.....	393,246	Nov. 20	1558	{ 408 409 }	45	913

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. %	Vol.	Page.
Kuehn, Michael. (See Snitjer and Kuehn.)						
Kuenzel, Karl, Kensington, Ill. Window-bar	377,624	Feb. 7	408	103	42	573
Kugler, George H. (See Trayer and Kugler.)						
Kuhlman, David D., Oakland, Nebr. Ditching and grading machine	379,705	Mar. 20	1239	330	42	1217
Kuhlman, Joseph F., Anamosa, Iowa. Washing-machine	378,138	Feb. 21	1200	312	42	747
Kuhn, Edmond, Brooklyn, assignor to Manhattan Watch Company, New York, N. Y. Stop-watch	383,059	May 15	1766	456	43	869
Kühne, Paul A. (See Barthel, Friedrich G., assignor.)						
Kuhns, George F., <i>et al.</i> (See Miller, Allen T., assignor.)						
Kuhns, Henry B., <i>et al.</i> (See Miller, Allen T., assignor.)						
Kuhns, William N., <i>et al.</i> (See Miller, Allen T., assignor.)						
Kuhnt, August, <i>et al.</i> (See Schwidlinsky, Hermann, assignor.)						
Kukkuck, Frederick, St. Louis, Mo. Trunk-top	380,291	Mar. 27	2109	564	42	1396
Kulage, Joseph J., St. Louis, Mo. Brick-machine	383,399	May 22	2266	602 603	43	973
Külper, August, assignor to C. Külper, Berlin, Germany. Game-scoring tablet and indicating device	389,845	Sept. 18	1577	418	44	1387
Külper, C. (See Külper, August, assignor.)						
Kumpfmiller, Wilhelm. (See Krauss, Wilhelm, assignor.)						
Kunderd, Amos E., Corunna, Ind. Animal-trap	376,246	Jan. 10	739	196 61 62	42	151
Kunhardt, David, Aachen, Prussia, Germany. Electric telegraph	379,016	Mar. 6	227	63 64 65 66	42	1009
Kuntzsch, Frederick A. (See Kuntzsch, William J., assignor.)						
Kuntzsch, William J., assignor of one-half to F. A. Kuntzsch, Syracuse, N. Y. Toy parachute	384,533	June 12	1039	271	43	1326
Kupfer, Charles A., Burlington, Iowa. Hame-tng	380,903	Apr. 10	907	243	43	186
Kupferle Marcellus O., St. Louis Mo. Hose-nozzle	381,500	Apr. 17	1815	480	43	370
Kupferschmid, Leo, Cincinnati, Ohio. Car-brake	376,100	Jan. 10	526	140	42	112
Kurschedt, Alexander E. (See Taylor, George and J. H., assignors.)						
Kurtis, Joseph F. (See Welsh, William S., assignor.)						
Kurtz, Samuel J., Crooked Hill, Pa. Vehicle-axle	390,482	Oct. 2	400	102	45	82
Kustel, Oscar, San Francisco, Cal. Ship's log	382,816	May 15	1401	367 368	43	798
Kustel, Oscar, San Francisco, Cal. Rotating trolling device for ships' logs	387,168	July 31	2729	716	44	558
Kutner, Anna M., <i>et al.</i> (See Kutner, David, assignor.)						
Kutner, David, assignor to A. M. Kutner, Brooklyn, and L. Kaufman, New York, N. Y. Finger-ring	394,928	Dec. 18	1867	483	45	1450
Kyle, William B. (See Dillman and Kyle.)						
Kymer, James L., <i>et al.</i> (See Hunter, Arvine P., assignor.)						
Kyne, Thomas F., <i>et al.</i> (See Yund, Theodore J., assignor.)						
L'Epée, Auguste, Sainte Suzanne, Doubs, France. Music-box	378,399	Feb. 21	1578	414	42	819
La Barbe, Gustave, Roseland, Ill. Foot-rest for stools	388,981	Sept. 4	259	68	44	1192
La Boiteaux, Frank M., Cincinnati, Ohio. Machine for making bungs	382,004	May 1	180	46, 47	43	547
La Borde, James F., assignor of one-half to M. McMannis, Rochester, N. Y. Machine for splitting shoe-soles	394,277	Dec. 11	803	213 214 287	45	1234
La Casse, Henry, Auburn, assignor of one-half to F. H. Gibbs, Syracuse, N. Y. Tricycle	389,517	Sept. 11	1080	286 287	44	1284
La Chaine, Joseph A., St. Martin, Quebec, Canada. Skate	388,693	Aug. 28	2285	614	44	1031
La Clede Car Company. (See Sutton, William, assignor.)						
La Dow, Charles, Albany, N. Y. Harrow	388,567	Aug. 28	2099	563	44	996
La Mothe, Bernard J., New York, N. Y. Railway-car spring	385,061	June 26	1843	472	43	1498
La Mothe, Bernard J., New York, N. Y. Metallic platform for railway-cars	390,036	Sept. 25	1856	492	44	1450
La Mothe, Bernard W. F., New York, N. Y. Metallic-car-platform	391,164	Oct. 16	1587	369	45	281
La Point, Augustine, Wessington Springs, Dak. Ter. Powder and shot cabinet	382,817	May 15	1403	368	43	798
La Point, Stephen, Derrick City, Pa. Pump	376,960	Jan. 24	1794	472	42	365
La Rue, Robert J., Mexico, Mo. Fire and burglar alarm	378,323	Feb. 21	1474	385	42	798
Laass, Emil. (See Duell and Laass.)						
Laass, Emil. (See Peckham and Laass.)						
Laass, Emil, <i>et al.</i> (See Dewey, Mark W., assignor.)						
Laass, Emil and G. W. Hey, Syracuse, assignors to International Postal Supply Company, New York, N. Y. Mail-stamping apparatus	388,366	Aug. 21	1823	484 485	44	937
Laberdee, Joseph. (See Keech and Laberdee.)						
Laberie, Pierre, Paris, France. Evaporating apparatus	378,598	Feb. 28	1876	496	42	886
Lacey, Van A., <i>et al.</i> (See Taber, Loyal C., assignor.)						
Lachman, Morris. (See Kohler and Lachman.)						
Lachman, Morris, assignor to Commercial Overseaming Sewing Machine and Manufacturing Company, San Francisco, Cal. Sewing-machine	377,525	Feb. 7	270	68	42	546
Lackner, Frederick, assignor to T. Neely, E. and J. Bindley, Pittsburg, Pa. Nut-machine	385,187	June 26	2021	517	43	1535
Lackner, Frederick, assignor to T. Neely, E. and J. Bindley, Pittsburg, Pa. Nut-machine	385,188	June 26	2023	517	43	1535
Lacourse, Octave. (See Lacourse, Richard and O.)						
Lacourse, Richard and O., Bristol, Conn. Coat-adjuster	384,769	June 19	1384	363	43	1401
Lacroix, Charles. (See Ostermann and Lacroix.)						
Lacroix, Louis J. T. (See Pigeon and Lacroix.)						
Lacy, Maurice, Wheaton, Ill. Painter's scaffold	383,471	May 29	2383	635	43	1003
Lacy, William, Jr., Los Angeles, Cal. Irrigating-hydrant	391,475	Oct. 23	1819	486	45	373
Ladd, Daniel A., assignor to Newark Collar Button Company, Newark, N. J. Button	376,890	Jan. 24	1701	444	42	347
Ladd, Daniel A., assignor to Newark Collar Button Company, Newark, N. J. Manufacture of buttons	380,807	Apr. 10	756	207	43	158
Ladd, Dennis, Madison, Ind. Car-coupling	381,145	Apr. 17	1292	345	43	268
Ladd, Dennis O., Chicago Ill. Slide-valve	377,078	Jan. 31	1966	517	42	406
Ladd, Dudley P. (See McElroy, Charles E., assignor.)						
Ladd, William A., Colfax, Wash. Ter. Wagon-seat	384,534	June 12	1040	271	43	1266
Ladd, William A., Colfax, Wash. Ter. Whiffletree-hook	391,054	Oct. 16	1234	329	45	254
Lafferty, James V., <i>et al.</i> (See Myers, William R., assignor.)						
Lafin, Perley, Warren, assignor to T. C. Bates, North Brookfield, Mass. Bobbin-holder for spooling-machines	375,880	Jan. 3	204	56	42	44
Lafin, Perley, Warren, assignor to T. C. Bates, North Brookfield, Mass. Scavenger-roll for spinning-machines, &c.	375,881	Jan. 3	206	57	42	44
Lafin, Perley, Warren, assignor to T. C. Bates, North Brookfield, Mass. Corset-clasp	378,691	Feb. 28	2013	531	42	912
Lafin & Rand Powder Company <i>et al.</i> (See Olds, Chauncey J., assignor.)						
Lafu, Lemuel, Pittsburg, N. H. Stamp-puller	382,096	May 1	332	86	43	574



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Lagowitz, Jacob. (See Frankel, Alexander C., assignor.)						
Laidlaw, William A., Cherokee, Kans. Baling-press	382,167	May 1	424	111	43	591
Laidlaw, William A., Cherokee, Kans. Hay-press. (Roissue)	10,954	Aug. 28	2447	660	44	1063
Laird, Bush F., Ocean Springs, Miss. Car-coupling	380,208	Mar. 27	2000	535	42	1374
Laird, Wesley E., Montpelier, Vt. Device for drying boots	395,063	Dec. 25	2068	534	45	1499
Lake, Abraham E. (See Hughes and Lake.)						
Lake, Everett L., Syracuse, N. Y. Combined match-safe and cigar-clipper	394,495	Dec. 11	1118	290	45	1295
Lake, Ezra B., Camden, N. J. Clutch	383,123	June 26	1931	492	43	1517
Lake, Ezra B., Camden, N. J. Ball-bearing	389,231	Sept. 11	661	169	41	1205
Lake, Frederick C., Rayne, county of Essex, England. Machine for sewing thatch	391,251	Oct. 16	1502	398 399	45	305
Lake, John C. (See Hughes and Lake.)						
Lake, Samuel K., Pittsburg, Pa. Medicine-ease	391,055	Oct. 16	1235	329	45	254
Lake, Wilmot, Washington, D. C. Laying underground conduits	393,477	Nov. 27	1914	501	45	9-9
Lakin, David R., Eugene City, Oreg. Riding-saddle	389,659	Sept. 18	1319	345	41	1335
Lakin, David R., assignor of one-half to W. I. Vawter, Eugene City, Oreg. Whiffletree attachment	381,255	Apr. 17	1447	290	43	207
Lalonde, John B., assignor of one-half to E. G. Francis, Portland, Oreg. Drag-saw	387,522	Aug. 7	479	126	44	666
Lamb, Jesse M., Franklin, Ind. Grain-measuring machine	379,231	Mar. 13	537	150	42	1073
Lamb, Thomas, and J. D. Morley, Philadelphia, Pa. Loop-surfaced fabric and making the same	379,402	Mar. 13	779	210	42	1119
Lamb, Watson F., New York, N. Y. Cash-register	381,561	Apr. 24	1899	501	43	404
Lamb, William, Paris, France. Curling-iron	391,476	Oct. 23	1820	486	45	373
Lambdin, Carvosso, Barranquilla, United States of Colombia, assignor to S. B. Lambdin, New York, N. Y. Electrical contact maker and breaker	379,074	Mar. 6	310	90	42	1024
Lambdin, Samuel B. (See Lambdin, Carvosso, assignor.)						
Lambert, Albert. (See Young, Lambert, and Ferris.)						
Lambert, Albert, Wadsworth, Ohio. Clothes-drier	393,247	Nov. 20	1560	409	45	913
Lambert, Robert B., assignor of one-half to T. W. Lambert, Waynesborough, Va. Velocipede	390,174	Sept. 25	2087	556 557	44	1498
Lambert, Thompson W. (See Lambert, Robert B., assignor.)						
Lambing, Isaac P. (See Knight and Lambing.)						
Lambing, Isaac P., Ione, Cal. Water-wheel	387,791	Aug. 14	889	229 230	44	750
Lamburth, Cassius E., San Francisco, Cal. Propulsion and steering of steam-vessels	386,991	July 31	2467	648	44	512
Lammedee, August, South Bend, Ind. Straw-stacker	385,634	July 3	456	118	44	89
Lammers, John. (See Woebler and Lammers.)						
Lammers, William, Stone Church, Ill. Automatic water-measuring device	385,274	June 26	2158	551	43	1564
Lammert, Henry. (See Woebler and Lammers, assignors.)						
Lamont, Jesse L., Atkinson, Ill. Corn-harvester	378,551	Feb. 28	1809	477 478	42	873
Lampard, George R., Oshkosh, Wis. Music-rack	394,986	Dec. 25	1961	505	45	1477
Lampe, George, Jr. (See Schmeltzer, John N., assignor.)						
Lamplugh, James A., Birmingham, county of Warwick, England. Spring-shackle	382,534	May 8	996	252 253	43	708
Lampman, Nelsen, Woodstock, Ontario, Canada. Sulky-plow	383,309	May 22	2137	563 564	43	950
Lamprey, Ben B., and A. C. Bugbee, assignors to Lamprey Manufacturing Company, Lake Village, N. H. Feed-water heater and lining for furnace-mouths	388,367	Aug. 21	1827	485	44	937
Lamprey, Benjamin B., and A. C. Bugbee, Lake Village, N. H., assignors to Lamprey Manufacturing Company. Knitting-machine	383,817	May 29	2913	769	43	1106
Lamprey Manufacturing Company. (See Lamprey and Bugbee, assignors.)						
Lamson Cash Railway Company. (See Farmer, Theodore P., assignor.)						
Lamson Cash Railway Company. (See Lovejoy, Henry L., assignor.)						
Lamson Store Service Company. (See Cowley, James T., assignor.)						
Lamson Store Service Company. (See Goodfellow, John H., assignor.)						
Lamson, William E., Sarnia, Ontario, Canada. Trotting-sulky	377,035	Jan. 31	1901	500	42	393
Lamson, William H., Chicago, Ill. Cutter-head	381,799	Apr. 24	2237	586	43	470
Lamson, William S. (See Jones, Frederick N., assignor.)						
Lamson, William S. (See Parker, Ralzemond F., assignor.)						
Lamson, William S. (See Taylor and Tirrell, assignors.)						
Lanaux, George A. (See Belton, John D., assignor.)						
Lancaster, Bradford F., Augusta, Me. Wrench	376,891	Jan. 24	1702	445	42	347
Lancaster, Bradford F., Norridgewock, Me. Oiling attachment for carriage-jacks	377,262	Jan. 31	2230	589	42	457
Lancaster, Charles B. (See Kelley, Charles H., assignor.)						
Lancaster, Charles P., assignor of two-thirds to L. Scott and J. H. Winslow, Fairmont, Ind. Price-indicator for weighing-scales	385,635	July 3	458	118	44	89
Lancaster, James H., New York, N. Y. Rock-breaker or ore-crusher	380,121	Mar. 27	1885	501 502	42	1350
Land and Sea Safety Ladder Company. (See Parks, Daniel, assignor.)						
Land, Charles H., Detroit, Mich. Hydrocarbon-furnace	376,003	Jan. 3	382	101 102	42	77
Land, Charles H., Detroit, Mich. Manufacture of refractory carbon	379,960	Mar. 27	1647	439	42	1304
Land, Charles H., Detroit, Mich. Operative dentistry	385,718	July 10	578	150	41	120
Land, Charles H., assignor to National Hydro-Carbon Furnace Company, Detroit, Mich. Kiln for burning decorated china	394,581	Dec. 18	1277	334	45	1337
Landauer, Sigmund, Atlanta, Ga. Adjustable heel for plows	388,992	Sept. 4	279	69	44	1123
Landauer, Sigmund, Atlanta, Ga. Colter-clamp	392,156	Oct. 30	2814	763	45	582
Landenberger, Charles H., Philadelphia, Pa. Warp for pattern-making	383,182	May 22	1947	510 511	43	915
Lander, Leroy O., Tacoma, Wash. Ter. Jack	391,165	Oct. 16	1388	370	45	282
Landers, Frary & Clark. (See Gérard, John, assignor.)						
Landers, Frary & Clark. (See Gérard and Webb, assignors)						
Landis, Ezra F. (See Miller, Walton B., assignor.)						
Landis, Israel L. (See Iske, Anthony, assignor.)						
Landis, Israel L. (See Iske, Anthony and A., assignors.)						
Landis, Israel L., Lancaster, Pa. Fence	379,706	Mar. 20	1241	330	42	1217
Landis, Israel L., Lancaster, Pa. Construction of pavements	388,694	Aug. 28	2286	614	44	1032
Landis, Israel L., Lancaster, Pa. Pavement-curb	389,391	Sept. 11	902	235	41	1252
Landis, Israel L., and A. Iske, Lancaster, Pa.; said Iske assignor to said Landis. Combined hay rake and tedder	380,122	Mar. 27	1887	502 503	42	1351
Landon, Albert. (See Wardwell and Landon.)						
Landon, Albert, assignor to himself and R. Barrett, Rutland, Vt. Combined school seat and desk	385,864	July 10	798	212	44	163

## • Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Landon, Edwin R., assignor of two-thirds to J. Booth, Chicago, Ill. Mat.	387,978	Aug. 14	1183	321	44	807
Lander, Edward J., <i>et al.</i> (See Lerch, Solomon W., assignor.)						
Landphere, C. Tyler, Mystic, Conn. Quilting-machine	384,264	June 12	636	171	43	1252
Landru, Edouard G., <i>et al.</i> (See Tachon, Claude, assignor.)						
Landschneider, Konrad. (See Braun and Landschneider.)						
Landstrom, Albert, assignor of one-half to A. B. Walker, Council Bluffs, Iowa. Transom-lifter	377,312	Jan. 31	2303	609	42	471
Lane, Alfred J., Glenville, Ohio. Coffee-pot	376,319	Jan. 10	839	221	42	170
Lane, Almeron M., Meriden, Conn. Clock-key	389,931	Sept. 25	1728	458	44	1424
Lane, Almeron M., Meriden, Conn. Alarm-clock	390,786	Oct. 9	820	218	45	169
Lane, Almeron M., Meriden, Conn. Alarm-clock	391,602	Oct. 30	2278	617	45	477
Lane, Andrew W., Susanville, assignor to himself, and J. L. McDermott, Milford, Cal. Vehicle-brake.	386,595	July 24	1863	492	44	388
Lane & Bodley Company. (See Hosea, Lewis M., assignor.)						
Lane, Charles A., <i>et al.</i> (See Lane, George W., assignor.)						
Lane, Charles C., assignor to J. H. Boalt, San Francisco, Cal. Preserving piles	383,531	May 29	2487	656	43	1021
Lane, Charles C., assignor to J. H. Boalt, San Francisco, Cal. Protecting and preserving piles	383,736	May 29	2769	730	43	1080
Lane, Cornelius. (See Lane, John and C.)						
Lane, David T., assignor of one-half to D. I. Dale, Franklin, Pa. Crane	381,256	Apr. 17	1448	390	43	297
Lane, Frederic A., assignor of one-half to F. E. Morgan, New Haven, Conn. Electro-magnet.	393,337	Nov. 20	1693	447	45	939
Lane, George A., Rochester, N. Y. Fifth-wheel	389,758	Sept. 18	1180	309	44	1310
Lane, George E., St. Albans, Vt. Show-stand	392,811	Nov. 13	946	242	45	783
Lane, George W., Rockford, Ill. Oil-can	377,426	Aug. 7	333	85	44	637
Lane, George W., assignor to C. A. Lane, Bristol, and E. A. Powell, Plainville, Conn. Nail-extractor	377,565	Feb. 7	321	82	42	556
Lane, Henry G., Bucyrus, Ohio. Ditching-machine	381,704	Apr. 24	2103	550 551	43	445
Lane, Henry G., Bucyrus, Ohio. Wagon	387,237	Aug. 7	57	13	44	582
Lane, Henry G., Bucyrus, Ohio. Vehicle-wheel	387,625	Aug. 14	745	191	44	722
Lane, Henry S., assignor to Morgan Envelope Company, Springfield, Mass. Paper-roll holder	390,084	Sept. 25	1957	520	44	1471
Lane, Jacob, and N. McPherson; said Lane assignor to E. McPherson, Gainsborough, Ontario, Canada. Load-elevator	390,787	Oct. 9	821	219	45	169
Lane, James R. (See Elliott, William E., assignor.)						
Lane, John and C., Flint, Mich. Wire-fence machine	389,751	Sept. 18	1450	380	41	1362
Lane, John R., and A. D. Davies, Calico, Cal. Boiler-cleaner	390,866	Oct. 9	931	245	45	188
Lane, Philander P. (See Stanwood and Lane.)						
Lane, William. (See Robinson, William, assignor.)						
Lane, William B., Jr., Brooklyn, N. Y. Temporary binder	394,496	Dec. 11	1119	291	45	1294
Lane, William J., Poughkeepsie, N. Y. Steam-engine	392,039	Oct. 30	2622	712 713	45	545
Lanfair, Herbert D., Miller's Falls, Mass. Miter-box	376,200	Jan. 10	676	179	42	139
Lantersiek, William H., Cincinnati, Ohio. Detachable shade for sewing-machines.	386,251	July 17	1360	358	44	250
Lang, Friedrich E., Anger, near Leipsic, Saxony, Germany. Printer's ink-roller	387,647	Aug. 14	688	177	41	711
Lang, Henry, Albany, and E. J. Watson, Troy, N. Y.; said Watson assignor to said Lang. Printing-stamp	381,880	Apr. 24	2376	618	43	497
Lang, John S., assignor of one-half to A. Worden, Ypsilanti, Mich. Wrench	384,451	June 12	911	237	43	1302
Langan, James. (See Dubey, Edward A., assignor.)						
Langhein, Charles. (See Brokhahn and Langhein.)						
Langhein, Charles, Brooklyn, N. Y. Corn-removing knife	376,320	Jan. 10	840	221	42	170
Langdon, Charles H., <i>et al.</i> (See Close, G. Albertus, assignor.)						
Langdon, Charles H., <i>et al.</i> (See Littlejohn, Charles F., assignor.)						
Lange, Carl, New Weissensee, near Berlin, Germany. Combined seat and cane	393,160	Nov. 20	1430	373 374	45	887
Lange, Oscar, Dresden, Saxony, Germany. Leaf-turner	395,061	Dec. 25	2068	535	45	1499
Lange, Philip. (See Byllesby and Lange.)						
Lange, Philip. (See Westinghouse and Lange.)						
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Switch for adjustable resistances	383,647	May 29	2640	699	43	1054
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Apparatus for connecting alternate-current dynamos	383,648	May 29	2641	699	43	1054
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Voltmeter	383,649	May 29	2643	699	43	1055
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Galvanometer	386,992	July 31	2468	648	44	512
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Galvanometer	386,993	July 31	2469	649	44	512
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electric meter	392,437	Nov. 6	384	95	45	666
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Combined electric meter and electric-clock system	392,438	Nov. 6	386	95	45	667
Lange, Philip, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electric meter	392,439	Nov. 6	388	95	45	667
Langebartsels, Henry C. (See Dawson, Joseph R., assignor.)						
Langelier, Antoine J., Providence, R. I. Heel-machine	388,884	Sept. 4	115	31 32 33	44	1094
Langen, Enrico, Hanover, Prussia, Germany. Substitute for cork	395,241	Dec. 25	2367		45	1551
Langen, Mathias, Milwaukee, Wis. Foot-gear	377,293	Jan. 31	2139	565	42	441
Langenbach, Rudolf, New York, N. Y. Support for Christmas-trees or other articles	392,871	Nov. 13	1025	262 263	45	800
Langerfeld, Arthur, New York, N. Y. Means for embossing sheet metal	392,977	Nov. 13	1176	305	45	829
Langfield, Morris F., Philadelphia, Pa. Banker's case	389,579	Sept. 18	1181	310	44	1310
Langfitt, Francis P., Pittsburg, Pa. Bullet	388,496	Aug. 28	2001	538	41	978
Langford, James W., Nashville, Tenn. Letter-box	384,698	June 19	1296	338	43	1383
Langfouth, Charles, Boston, assignor of two-thirds to J. R. Wood, Woburn, and J. L. Ripley, Somerville, Mass. Medicine-spoon	380,724	Apr. 19	632	173	43	135
Langfouth, Charles, Boston, assignor of two-thirds to J. R. Wood, Woburn, Mass., and C. A. Sinclair, Portsmouth, N. H. Stock-car	380,725	Apr. 19	632	173 174 175	43	135
Langlais, Archie, Chicago, Ill. Gas-meter	386,994	July 31	2470	649	44	512
Langley Cotton Harvester Company of New York City. (See Langley, William L., assignor.)						
Langley, Will P., Detroit, Mich. Sawing-machine	387,618	Aug. 11	689	177	44	711
Langley, William L. (See Bugg and Langley.)						
Langley, William L., Newark, N. J., assignor to Langley Cotton Harvester Company of New York City. Picker-stem for cotton-harvesters	382,535	May 8	998	251	43	708
Langley, William L., Newark, N. J., assignor to Langley Cotton Harvester Company of New York City. Picker-stem for cotton-harvesters	382,536	May 8	1000	254	43	709

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Langlot, Adam G., assignor of one-third to L. Schneider, La Grange, Mo. Wood-saw	378,510	Feb. 28	1748	462	42	861
Langseth, Olavus G., Grand Forks, Dak. Ter. Insecticide	395,065	Dec. 25	2069		45	1500
Langworthy, Charles S., Chicago, Ill. Adjustable folding curtain-partition for houses	385,813	July 10	716	187	44	147
Langworthy, Oliver I., Nortonville, Kans. Trace-carrier	382,709	May 15	1359	329 330 330	43	769
Langworthy, Oliver I., Nortonville, Kans. Horse collar	392,298	Nov. 6	43	12	45	603
Lankford, Tilghman W., Sharptown, Md. Crate	376,321	Jan. 10	841	232	42	170
Lanning, Joseph R., and J. Young, Oakland Cal. Railway-car heater	387,956	Aug. 14	1156	913	44	802
Lanpher, Charles W., Norwich, N. Y. Car-brake	386,639	July 24	1917	507 508	44	400
Lansberg, Frank, assignor of one-half to T. Inglis, St. Louis, Mo. Air-brake	386,640	July 24	1922	508	44	401
Lansden, Frank, assignor of one-half to T. Inglis, St. Louis, Mo. Air-brake	392,872	Nov. 13	1926	263	45	801
Lansden, Thomas G. (See McIlhenny and Lansden.)						
Lansing, Chester F., Fayette, Ohio. Broom-holder	379,961	Mar. 27	1649	439	42	1304
Lanston, Tolbert, Washington, D. C. Child's carriage	376,201	Jan. 10	678	180	42	140
Lantaff, George T. (See Westrup and Lantaff.)						
Lanzendoerfer, George, Boston, Mass. Making glue by dialysis	392,274	Nov. 6	140		45	621
Lapham, Daniel W., assignor to J. M. Lapham, Brooklyn, N. Y. Fountain-pen	376,778	Jan. 24	1535	464	42	317
Lapham, Josephine M. (See Lapham, Daniel W., assignor.)						
Laporte, Arthur, Ware, assignor of one-half to J. A. Courtemanche, Worcester, Mass. Carpenter's gage	385,124	June 26	1932	493	43	1518
Larcomb, Emanuel R. (See Orewiler and Larcomb.)						
Lard, Selden B., Waterville, Kans. Water-wheel	391,539	Oct. 23	1961	516	45	390
Larow, William H., Mariposa, assignor of one-half to W. C. Reid, Mariposa County, Cal. Adjustable map and chart support	383,818	May 29	2915	769	43	1167
Larew, William H., Mariposa, Cal. Adjustable map or chart support	392,565	Nov. 6	567	143	45	704
Large, William J., Brooklyn, N. Y. Trunk	380,493	Apr. 3	271	75	43	56
Large, William J., Brooklyn, N. Y. Trunk	385,129	June 26	2024	518	43	1536
Larimer, William H., et al. (See Coppage, William, assignor.)						
Larkin, Andrew H., Portland, Me. Harness-saddle	388,695	Aug. 28	2287	614	44	1032
Larmour, John S. (See Brooks, Moses W., assignor.)						
Larned, Charles P., and R. V. R. Sill, Detroit, Mich. Railway-car signal	388,420	Aug. 28	1897	506 507	44	957
Larned, William M., assignor of two-thirds to A. S. Warner and A. L. Skinner, Springfield, Mass. Take-up mechanism for looms	389,846	Sept. 18	1578	418 419	44	1388
Larrabee, Charles C., Bath, Me. Chafe-iron for vehicles	391,623	Oct. 23	2014	545	45	414
Larsen, Jens F. O., Copenhagen, Denmark. Sea-quieting apparatus	387,427	Aug. 7	334	86	44	637
Larson, Chris, assignor to H. Larson, Chicago, Ill. Desk	379,232	Mar. 13	538	150	42	1073
Larson, Frederic, Royalton, Minn. Bench-dog	378,890	Mar. 6	49	14	42	975
Larson, Hanna. (See Larson, Chris, assignor.)						
Larsson, Pehr. (See Johnson and Larsson.)						
Lartigue Railway Construction Company. (See Bocandé, Olivier B., assignor.)						
Lartigue Railway Construction Company. (See Mallet and Behr, assignors.)						
Lasar, Godfrey H., St. Louis, Mo. Cover for type-writers	386,139	July 17	1187	316	44	248
Lascelles & Co., A. S. (See Lezard, Edward J., assignor.)						
Lasch, Carl L., Rendsitz, Leipsic, Saxony, Germany. Box-stapling machine	378,324	Feb. 21	1476	385 386	42	798
Lasch, Carl L., Rendsitz, Leipsic, Saxony, Germany. Wire-stitching machine	391,252	Oct. 16	1503	399	45	305
Laser, John, Bremen, Ind. Bee-hive	383,737	May 29	2770	730	43	1081
Lasher, Morgan E., Champaign, Ill. Hame-link	382,823	May 15	1491	391	43	817
Laskey, Milton, Boston, assignor of one-half to G. M. Cutter, Malden, Mass. Walking toy	390,483	Oct. 2	401	102 103	45	82
Laspeyre, Mathew, Brunswick, Ga. Bedstead	383,650	May 29	2644	700	43	1055
Lassen, Lorens, Manchester, Conn. Reamer	393,767	Dec. 4	49	14	45	1021
Lasseter, George M., et al. (See Gordon, Lorenzo D., assignor.)						
Lassiter, William R., Hico, Ky. Machine for pressing leaves of tobacco	390,238	Oct. 2	62	17	45	16
Lasswell, John W., assignor to himself and J. Hadley, Augusta, Kans. Washing-machine						
Lathaw, Jacob T., Bradford, Pa. Nut-lock	388,297	Aug. 21	1569	417	44	888
Lathmore, Edward, London, England. Bow for stringed instruments	380,494	Apr. 3	272	75	43	56
Latham, Cyrus H., assignor to Woods, Sherwood & Co., Lowell, Mass. Dish-holder	384,045	June 5	304	86	43	1179
Latham, Ephraim, Washington, D. C., assignor of two-thirds to T. J. Powell, New York, N. Y., E. A. Sawyers, Brownsville, Oreg., and L. W. Perkins, New Orleans, La. Automatic car-coupling	378,692	Feb. 28	2014	532	42	913
Latham, Ephraim, Washington, D. C., assignor of one-half to E. A. Sawyers, Brownsville, Oreg. Metallic strap-fastener	378,068	Feb. 14	1083	284	42	719
Lathrop, Austin, et al. (See Barry, Charles, assignor.)	389,518	Sept. 11	1084	287	44	1286
Lathrop, Benjamin G., Oakland, Cal. Baby-jumper	382,884	May 15	1493	391	43	818
Lathrop, George P., New London, Conn. Game	385,190	June 26	2025	518	43	1536
Lathrop, James, Norwich, Conn. Weather-strip	394,864	Dec. 18	1575	455	45	1430
Lathrop, James, assignor of one-half to W. L. Beach, Norwich, Conn. Whip-socket	388,368	Aug. 21	1828	485	44	937
Latimer, John W., assignor to Milwaukee Harvester Company, Milwaukee, Wis. Mower	390,085	Sept. 25	1958	520 521	44	1471
Latimer, William, Wilmington, N. C. Car-coupling	393,114	Nov. 20	1368	357	45	874
Latsbaw, Zach. (See Conant and Latsbaw.)						
Latsbaw, Zach, McKeesport, Pa. Electric distribution by secondary batteries	394,541	Dec. 11	1196	311	45	1307
Latta, Emmitt G., Friendship, N. Y., assignor, by mesne assignments, to Pope Manufacturing Company, Portland, Me. Velocipede	377,204	Jan. 31	2146	565 566	42	441
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede-saddle	376,322	Jan. 10	842	222	42	170
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede-saddle	376,602	Jan. 17	1348	354	42	272
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede-saddle	376,892	Jan. 24	1703	445	42	347
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	377,566	Feb. 7	322	82, 83	42	557
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	377,900	Feb. 14	817	216	42	671
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	378,253	Feb. 21	1375	360 361	42	759
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	378,693	Feb. 28	2015	532	42	913
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	379,017	Mar. 6	232	66	42	1010

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.....	380,495	Apr. 3	273	75, 76	43	56
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede-wheel.....	382,885	May 15	1493	391	43	818
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.....	387,979	Aug. 14	1184	322	44	807
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.....	391,253	Oct. 16	1505	400	45	305
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.....	391,900	Oct. 30	2416	654	45	504
Latta, Emmitt G., Friendship, N. Y., assignor to Pope Manufacturing Company, Portland, Me. Velocipede.....	392,349	Nov. 6	256	65, 66	45	643
Latulip, Frederick, assignor to T. W. Meachem, Syracuse, N. Y. Ferrule.....	392,957	Nov. 13	1144	297	45	823
Laub, George H., West Lebanon, Ind. Pump.....	379,233	Mar. 13	539	150	42	1073
Laubach & Iddings. (See Schmidt, Theodore F. W., assignor.)						
Laube, Godfried, Huron, Dak. Ter. Straw-burning cook-stove.....	389,392	Sept. 11	903	235 } 236 }	44	1252
Laube, Godfried, Huron, Dak. Ter. Hay-burner.....	389,393	Sept. 11	905	236 } 237 }	44	1252
Laube, Godfried, Huron, Dak. Ter. Straw-burning cook-stove.....	389,394	Sept. 11	906	236 } 237 }	44	1253
Laube, Godfried, Huron, Dak. Ter. Combined straw-burning heating and cooking stove.....	389,395	Sept. 11	907	237 } 238 }	44	1253
Laube, Godfried, Huron, Dak. Ter. Straw-burner.....	391,254	Oct. 16	1508	400	45	306
Laube, Godfried, Huron, Dak. Ter. Straw-burner.....	391,255	Oct. 16	1510	401	45	306
Laube, Godfried, Huron, Dak. Ter., assignor of one-half to T. J. McBride, Winnipeg, Canada. Straw or hay burning furnace.....	392,812	Nov. 13	947	242	45	784
Laubscher, Alexander, assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Tucking-guide for sewing-machines.....	385,560	July 3	345	90	44	69
Lauckert, Edward F. H. H., Charlton, county of Kent, England, assignor to Siemens & Halske, Berlin, Germany. Conductor for dynamo-electric machines.....	389,752	Sept. 18	1451	380	44	1362
Landerholm, Andrew F., and O. F. Olson, Chicago, Ill.; said Landerholm assignor to said Olson. Water-gage indicator.....	382,044	May 1	255	65	43	560
Landick, John M., Delphos, Ohio. Display-rack.....	376,318	Jan. 10	838	221	42	170
Landon, C. A. Herman, Sherman, assignor to L. Landon, Sr., Dover, Minn. Draft-equalizer for harvesters.....	376,663	Jan. 17	1350	354	42	273
Landon, Louis, Sr. (See Landon, C. A. Herman, assignor.)						
Lauferty, Joseph, New York, N. Y. Suspender-end.....	390,303	Oct. 2	140	40	45	31
Lauman, Phillip H., Jr., Apollo, Pa. Shears for cutting oval plates.....	394,776	Dec. 18	1606	421	45	1402
Laughlin, Henry A., Pittsburg, Pa. Regenerative hot-blast stove.....	379,707	Mar. 20	1243	331	42	1217
Laughlin, Howard E., Cleveland, Ohio. Door-mat.....	385,561	July 3	347	90	44	70
Laughton, John. (See Merrill and Laughton.)						
Laughton, Joseph B., Brooklyn, assignor to J. I. Holly, New York, N. Y. Color or ink pad.....	379,793	Mar. 20	1367	364	42	1242
Laumann, John H., Newburyport, Mass. Auxiliary boiler attachment.....	377,313	Jan. 31	2304	609	42	471
Laundry, Andrew, Côte St. Paul, Quebec, Canada, assignor of one-half to H. H. Warren, Massena, N. Y. Die for making augers.....	382,710	May 15	1260	330	43	769
Lavens, Edwin. (See Lieb and Lavens.)						
Lavigne, Joseph P., New Haven, Conn. Breech-loading ordnance.....	386,995	July 31	2472	649 } 650 }	44	513
Lavigne, Joseph P., New Haven, Conn. Making cannon.....	386,696	Aug. 28	2288	615	44	1032
Lavoie, Joseph I. (See Ring and Lavoie.)						
Law, Isaac D., assignor of one-half to J. G. R. McCorkill, Philadelphia, Pa. Toy.....	381,391	Apr. 17	1642	437	43	336
Law, James, Ithaca, N. Y. Instrument for milking cows.....	393,161	Nov. 20	1431	374	45	887
Lawes, Walter, New Bedford, Mass., assignor to Applegate Boot and Shoe Lasting Company, Portland, Me. Lasting-machine.....	393,768	Dec. 4	50	14	45	1081
Lawler, John J. (See Lawler, Thomas and J. J.)						
Lawler, Thomas and J. J., Clifton, N. Y. Excavating-bucket.....	378,099	Feb. 21	1130	295	42	735
Lawless, Edward J. (See Delbert, Ambrose E., assignor.)						
Lawless, William, Ottawa, Ill. Two-wheeled vehicle.....	381,705	Apr. 24	2110	552	43	446
Lawrence, Alvin, Lowell, assignor to American Waltham Watch Company, Waltham, Mass. Apparatus for exhibiting or demonstrating non-magnetic watch-movements.....	395,151	Dec. 25	2216	569	45	1526
Lawrence, Benjamin, assignor to L. Lawrence, New York, N. Y. Letter file and binder.....	388,421	Aug. 28	1899	507	44	957
Lawrence, H. Orville. (See Lawrence, Howard T. and H. O.)						
Lawrence, Henry J., Valparaiso, Ind. Wheel for vehicles.....	379,315	Mar. 13	659	178	42	1096
Lawrence, Herbert W., Montevideo, Minn. Curry-comb.....	390,484	Oct. 2	1402	103	45	83
Lawrence, Howard T. and H. O., Dushore, Pa. Eaves-trough hanger.....	384,965	June 26	4706	442	43	1471
Lawrence, Louis P., Passaic, N. J., assignor to Lawrence Railway Brake Company. Tool-operating mechanism.....	377,258	Feb. 14	785	200	42	659
Lawrence, Louis P., Passaic, N. J., assignor to Lawrence Railway Brake Company, of New York. Valve.....	391,716	Oct. 23	2141	579	45	440
Lawrence, Louis P., Passaic, N. J., assignor to Lawrence Railway Brake Company, of New York. Valve for air or steam pipes.....	392,813	Nov. 13	948	242	45	784
Lawrence, Louisa. (See Chappell, George F., assignor.)						
Lawrence, Louisa. (See Lawrence, Benjamin, assignor.)						
Lawrence Railway Brake Company. (See Lawrence, Louis P., assignor.)						
Lawrence, Robert S., Philadelphia, Pa., assignor to C. H. M. Brosnan, South Kensington, England. Carburetor.....	395,152	Dec. 25	2217	569	45	1526
Lawrence, Washington H., Cleveland, Ohio. Carbon-amalgamator.....	377,901	Feb. 14	849	217	42	671
Lawrence, William A., Sheridan, Ontario, Canada. Permutation-lock.....	387,307	Aug. 7	165	44	44	603
Lawrence, William H. (See Morris and Lawrence.)						
Lawrence, William H., Pittsburg, Pa. Axle-box lid.....	394,378	Dec. 11	963	253	45	1266
Lawrence, William S. (See Pembroke, Daniel S., assignor.) (Reissue.)						
Lawrence, William S., Kalamazoo, Mich. Harrow-tooth holder.....	379,018	Mar. 6	234	66	42	1010
Lawrie, Charles W., Erie, Pa. Cut-off regulator.....	376,826	Jan. 24	1610	422	42	330
Lawshie, Spencer R., Chicago, Ill. Lightning-rod.....	375,756	Jan. 3	50	15	42	13
Lawson, Arthur T., Leeds, county of York, England. Machine for spinning flax, &c.....	390,485	Oct. 2	403	103	45	83
Lawson, Arthur T., Leeds, county of York, England. Machine for spinning flax, &c.....	390,486	Oct. 2	405	103 } 104 }	45	83
Lawson, Arthur T., Leeds, county of York, England. Machine for spinning flax, &c.....	390,487	Oct. 2	407	105 } 106 }	45	83
Lawson, Arthur T., and S. Dear, Leeds, county of York, England. Differential gear for roving-frames, &c.....	394,582	Dec. 18	1279	335	45	1337
Lawson, Thomas F., Athens, Ga. Cotton chopper and cultivator.....	379,962	Mar. 27	1649	439	42	1305
Lawson, William H., New York, N. Y. Coat and hat book.....	382,097	May 1	332	87	43	574
Lawton, Manley C. (See Wells, George F., assignor.)						
Lawton, Manley C., Staten Island, Cal. Dredger-dipper.....	381,257	Apr. 17	1450	390	43	297

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Lawton, Manley C., Staten Island, Cal. Dredger-dipper .....	381,258	Apr. 17	1451	391	43	298
Lawton, Manley C., Staten Island, Cal. Dredger-dipper .....	393,439	Nov. 27	1841	485	45	976
Lawton, William, Huddersfield, county of York, England. Device for guiding the sliver in sliver-boxes of carding-engines .....	392,275	Nov. 6	141	35, 36	45	621
Laxton, John. (See Brown, Florence, assignor.)						
Laxton, John, Toronto, Ontario, Canada. Gas-stove .....	390,377	Oct. 2	254	68	45	54
Lay, Frank B., Kalamazoo, Mich. Two-wheeled vehicle .....	388,291	Aug. 21	1699	453	44	915
Lay, Frank B., Kalamazoo, Mich. Two-wheeled vehicle .....	388,292	Aug. 21	1700	453	44	915
Le Baron, Robert. (See Barnes, Amos, assignor.)						
Le Bean, Jean M. V., New Orleans, La. Fan for cars .....	382,818	May 15	1404	368	43	799
Le Blond, Napoleon B., Minneapolis, Minn. Overdraw check-loop for bridles .....	377,944	Feb. 14	918	237	42	657
Le Fever Arms Company. (See Le Fever, Daniel M., assignor.)						
Le Gay, Edward J., Boston, Mass. Heel-mold .....	382,888	May 15	1498	393	43	819
Le Gay Heel Company. (See Mitchell and Reynolds, assignors.)						
Le Grande Signal and Electrical Company. (See Le Grande, William W., assignor.)						
Le Grande, William W., assignor to Le Grande Signal and Electrical Company, Louisville, Ky. Electro-mechanical signal apparatus .....	377,626	Feb. 7	410	{ 104 105 }	42	574
Le Marquand, Adrien, Paris, France. Sowerage or drainage of houses, towns, or districts, and apparatus therefor .....	377,681	Feb. 7	496	128	42	589
Le Page's Liquid Glue and Cement Company. (See Martin, Charles M., assignor.)						
Le Pan, Henry C. P., Chicago, Ill. Welding-furnace .....	394,865	Dec. 18	1756	455	45	1430
Le Prince, Augustin, New York, N. Y. Method of and apparatus for producing animated pictures of natural scenery and life .....	376,247	Jan. 10	740	{ 196 197 }	42	152
Le Roy, Charles J., St. Louis, Mo., assignor to A. C. Babcock, Canton, Ill. Manufacture of horsehoes .....	392,276	Nov. 6	144	36	45	621
Le Sauvage, Charles R. (See Fleming and Le Sauvage.)						
Lea, Charles G., Atchison, Kans. Railway-frog .....	394,379	Dec. 11	964	253	45	1266
Lea, John, assignor to H. Watt, London, England. Arc lamp .....	388,697	Aug. 28	2289	{ 615 616 }	44	1032
Lea, Richard H. (See Singer and Lea.)						
Leach, Charles. (See Hazelton and Leach.)						
Leach, Frank H. (See McCulla, Frank M., assignor.)						
Leach, Henry B., Boston, Mass. Safety-razor .....	385,636	July 3	460	119	44	89
Leach, Joseph, Indianapolis, assignor of one-half to C. G. Udell, North Indianapolis, Ind. Hoop for coopers' ware .....	376,530	Jan. 17	1141	299	42	233
Leach, Joseph, Hanglville, assignor of one-half to C. G. Udell, North Indianapolis, Ind. Hoop .....	382,261	May 1	567	143	43	617
Leach, William, Accrington, county of Lancaster, England. Spinning-machine .....	387,361	Aug. 7	247	61, 62	44	617
Leadbeater, Frederick, Detroit, Mich. Air-feeding device .....	386,140	July 17	1188	317	44	248
Leadbeater, Frederick, assignor of one-half to T. C. Rogers, Detroit, Mich. Smoke-consumer .....	388,885	Sept. 4	121	33	44	1095
Leahy, Edward C., assignor to himself, J. H. Austen, J. White, and F. Roberts, Halifax, Nova Scotia, Canada. Lubricant .....	376,961	Jan. 24	1795	.....	42	366
Leahy, James F., et al. (See Griffin, Patrick, assignor.)						
Leak, Crapo, assignor of three-fourths to M. Leak and D. V. B. Henarie, San Francisco, Cal. Presser-foot for sewing-machines .....	390,606	Oct. 2	566	150	45	114
Leak, Mondula, et al. (See Leak, Crapo, assignor.)						
Leake, Frank, Philadelphia, Pa. Terry fabric .....	376,664	Jan. 17	1351	354	42	273
Leake, Frank, Philadelphia, Pa. Towel .....	381,046	June 5	305	83	43	1119
Leake, Frank, Philadelphia, Pa. Terry fabric .....	395,242	Dec. 25	2368	606	45	1551
Leamon, John B., Franklin, Tex. Seed-planter .....	395,153	Dec. 25	2220	{ 570 571 }	45	1526
Leary, Michael, assignor of one-half to J. F. Mann, Utica, N. Y. Automatic switch .....	392,678	Nov. 13	737	187	45	742
Leasure, Harvey E., Williamsburg, Iowa. Bill-holder .....	380,685	Apr. 10	579	159	43	125
Leather Lock Sewing Machine Association. (See Conpal, Peter A., assignor.)						
Leather Lock Sewing Machine Association. (See Conpal, Peter A. and J., assignors.)						
Leather Lock Sewing Machine Company. (See Conpal, Peter A. and J., assignors.)						
Leathers, Bowling S., New Orleans, La. Insect-poison distributor .....	376,665	Jan. 17	1352	355	42	273
Leavell, Leonidas W., Jr., and R. E. L., Kearney, Mo. Tongue-support .....	383,183	May 22	1948	511	43	915
Leavell, Robert E. L. (See Leavell, Leonidas W., Jr., and R. E. L.)						
Leavenworth, George C., et al. (See Hart, Alfred A., assignor.)						
Leavitt, Erasmus D., Jr. (See Dean, Francis W., assignor.)						
Leavitt, Erasmus D., Jr., Cambridgeport, Mass. Valve-gear .....	380,328	Apr. 3	29	9, 10	43	8
Leavitt, Erasmus D., Jr., Cambridgeport, Mass. Valve-gear .....	380,329	Apr. 3	31	{ 11 12 13 }	43	8
Leavitt, Erasmus D., Jr., Cambridgeport, Mass. Pump .....	380,330	Apr. 3	35	13	43	9
Leavitt, Frank M., Brooklyn, N. Y. Stamping-press .....	388,698	Aug. 28	2291	{ 616 617 }	44	1033
Leavitt, Frank M., Brooklyn, N. Y. Coin-controlled vending-machine .....	393,162	Nov. 20	1432	374	45	887
Leavitt, Frank M., assignor to E. W. Bliss Company, Brooklyn, N. Y. Drop-hammer .....	380,808	Apr. 10	757	{ 207 208 }	43	158
Leavitt, Frank M., assignor to E. W. Bliss Company, Brooklyn, N. Y. Selling-machine .....	384,770	June 19	1385	363	43	1401
Leavitt, Frank M., assignor to E. W. Bliss Company, Brooklyn, N. Y. Drop-hammer .....	386,076	July 10	1082	{ 291 292 293 }	44	221
Leavitt, Frank M., Brooklyn, N. Y., assignor to E. and O. W. Norton, Chicago, Ill. Apparatus for forming sheet-metal can-bodies .....	382,537	May 8	1001	{ 254 255 256 }	43	709
Leavitt, Frank M., Brooklyn, N. Y., assignor to E. and O. W. Norton, Chicago, Ill. Can-heading machine .....	382,538	May 8	1006	{ 256 257 }	43	710
Leavitt, Frank M., Brooklyn, N. Y., assignor to E. Norton, Maywood, and O. W. Norton, Chicago, Ill. Can-heading machine .....	390,086	Sept. 25	1960	{ 521 522 }	44	1472
Leavitt, Frank M., Brooklyn, N. Y., assignor to Vulcan Company, Philadelphia, Pa. Cornice-machine .....	395,154	Dec. 25	2222	571	45	1527
Leber, Jacob G. (See Leber, Luther H., assignor.)						
Leber, Luther H., assignor to J. G. Leber, York, Pa. Electric lamp .....	376,323	Jan. 10	845	222	42	171
Leblanc, Leon. (See Frenier, John H., assignor.)						
Lechner Manufacturing Company. (See Legg, Benjamin A., assignor.)						
Lechner Manufacturing Company. (See Lowry, Frank, assignor.)						
Lechner Manufacturing Company. (See Schenck, Edward, assignor.)						
Lechtenberg, Henry, Quincy, Ill. Valve-gear .....	382,168	May 1	425	111	43	591
Lockie, William J., Jr., Boston, Mass. Button .....	377,625	Feb. 7	409	104	42	573
Léclère, Francis, Philadelphia, Pa. Damper-regulator .....	388,699	Aug. 28	2295	617	44	1033
Leconteux, Hippolyte, and E. Garnier, Paris, France. Steam-engine .....	382,479	May 8	915	{ 231 232 }	43	692



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Leder, George, Demopolis, Ala., assignor of one-half to W. T. Forbes, Atlanta, Ga. Bag-fastener.....	392,958	Nov. 13	1145	298	45	823
Ledgerwood Manufacturing Company. (See Beekman, John V., assignor.)						
Ledoux, Francis X., New York, N. Y. Making patterns for garments.....	385,637	July 3	461	119	44	90
Lee, Charles and C. L., Burbank, Ohio. Anti-rattler for thill-couplings.....	391,166	Oct. 16	1389	370	45	282
Lee, Charles E. (See Gilbert, James, assignor.)						
Lee, Charles E., Allegheny, Pa. Hasp-lock.....	393,163	Nov. 20	1434	375	45	888
Lee, Charles T., Boston, Mass. Shoe.....	381,259	Apr. 17	1452	391	43	298
Lee, Charles T., Boston, Mass. Composition of matter.....	389,519	Sept. 11	1085		44	1286
Lee, Charles T., Boston, and C. N. Waite, Medford, assignors of one-half to Gould & Watson Company, Boston, Mass. Electrical non-conductor.....	386,925	July 31	2377	625	44	493
Lee, Charley L. (See Lee, Charles and C. L.)						
Lee Company, J. Ellwood. (See Lee, J. Ellwood, assignor.)						
Lee, Edward G., Brooklyn, Pa. Wagon-spring.....	375,941	Jan. 3	293	79	42	61
Lee, Ellef H., Chicago, Ill. Wood working and planing machine.....	385,125	June 26	1933	493	43	1518
Lee, Emmitt. (See Rogers, Seth, assignor.)						
Lee, Frank W., and J. G. Bradshaw, Lawrence, Mass. Apparatus for dyeing.....	386,835	July 31	2243	589	44	467
Lee, Frederick. (See Deeds, John B., assignor.)						
Lee, George M., Little Falls, N. Y. Electric speed-governor for water-wheels.....	392,679	Nov. 13	738	187	45	742
Lee, George S., Denver, Colo. Fire-proof paint.....	388,886	Sept. 4	122		44	1095
Lee, George S., Denver, Colo. Composition of matter for paving.....	392,614	Nov. 13	651		45	726
Lee, George S., Denver, Colo. Composition for the manufacture of building blocks, tiles, bricks, &c.....	392,615	Nov. 13	653		45	726
Lee, George S., Denver, Colo., assignor to National Splice Bar Company, of New Jersey. Nut-lock.....	391,624	Oct. 23	2015	545	45	415
Lee, George S., Denver, Colo., assignor to National Splice Bar Company, of New Jersey. Fish-plate joint.....	391,625	Oct. 23	2016	545	45	415
Lee, George S., assignor to S. H. Bates, Denver, Colo. Roadway or pavement.....	391,625	Dec. 18	1280	335	45	1337
Lee, George W., assignor of one-half to W. H. Banker, Wooster, Ohio. Running-gear for vehicles.....	381,146	Apr. 17	1293	345	43	268
Lee, Gilbert M., Jefferson, Kans. Refrigerator.....	378,254	Feb. 21	1377	361	42	780
Lee, Henry A., Glen Ridge, assignor to himself and T. W. Burger, Dunellen, N. J. Sheet-metal can.....	393,566	Nov. 27	2040	534	45	1018
Lee, Henry F. (See Van der Hylten, Georges, assignor.)						
Lee Hotel Fire Escape Company <i>et al.</i> (See Murphy, John M., assignor.)						
Lee, J. Ellwood, Conshohocken, Pa. Manufacture of sheet-metal splints.....	376,666	Jan. 17	1353	355	42	273
Lee, J. Ellwood, assignor to J. Ellwood Lee Company, Conshohocken, Pa. Package of surgeons' silk or catgut.....	385,937	July 10	904	240	44	185
Lee, J. Ellwood, assignor to J. E. Lee Company, Conshohocken, Pa. Surgical splint.....	390,176	Sept. 25	2003	553	44	1498
Lee, J. Ellwood, assignor to J. E. Lee Company, Conshohocken, Pa. Catheter.....	390,177	Sept. 25	2004	558	44	1499
Lee, J. Ellwood, assignor to J. E. Lee Company, Conshohocken, Pa. Ear-trumpet.....	392,040	Oct. 30	2626	714	45	546
Lee, J. Thomas, Mattoon, Ill. Feed-water heater.....	393,375	Nov. 27	1752	464	45	959
Lee, James, Liston, Iowa. Potato-digger.....	381,706	Apr. 24	2111	552	43	447
Lee, James D., Chicago, Ill. Smoke-consuming furnace.....	383,310	May 22	2138	564	43	950
Lee, James F., Chicago, Ill. Complemental accident insurance policy.....	389,818	Sept. 18	1539	407	44	1381
Lee, James H. (See Gibson, Walter L., assignor.)						
Lee, James L. (See Shnidewend and Lee.)						
Lee, James P., New York, N. Y. Magazine fire-arm.....	383,363	May 22	2207	584 585 586	43	964
Lee, James P., Ilion, N. Y., assignor to C. M. Dally, Montclair, N. J. Cartridge for fire-arms.....	378,255	Feb. 21	1378	361	42	780
Lee, John, Sterling, Ohio. Hollow building block or brick.....	390,175	Sept. 25	2092	557	44	1498
Lee, John E., Conshohocken, Pa. Metallic splint.....	392,157	Oct. 30	2815	764	45	582
Lee, Joseph D., Dallas, and J. H. Acton, Portland, Oreg. Shawl-strap and fire-escape.....	384,631	June 19	1186	313	43	1362
Lee, Julius T., Mattoon, Ill. Exhaust-nozzle extension for locomotives.....	392,350	Nov. 6	259	66	45	643
Lee, Julius T., Mattoon, Ill. Balanced valve.....	392,351	Nov. 6	260	67	45	644
Lee, Lewis S., Philadelphia, Pa. Hair-clipping machine.....	382,288	May 1	605	153	43	624
Lee, Louis S. (See Phipps and Burman, assignors.) (Reissue.)						
Lee, Martin, Alma City, Minn. Hand-car and track-raiser.....	393,015	Nov. 20	1237	321	45	848
Lee, Patrick H. (See Carolan and Lee.)						
Lee, Richard H., Altoona, Dak. Ter. Designation-badge.....	382,367	May 8	737	187	43	659
Lee, Richard H., Marysville, Kans. Leveling device.....	392,209	Nov. 6	44	12	45	603
Lee, Robert E., New Orleans, La. Lubricator.....	391,803	Oct. 30	2279	618	45	477
Lee, Robert E., assignor of two-thirds to J. S. Johnson, Almont, Mich. Sleigh.....	390,488	Oct. 2	409	105	45	84
Lee, Robert E., assignor of two-thirds to J. S. Johnson, Almont, Mich. Runner for wheeled vehicles.....	391,626	Oct. 23	2018	545	45	415
Lee, Robert E., assignor of two-thirds to J. S. Johnson, Almont, Mich. Sleigh.....	393,988	Dec. 4	374	101	45	1143
Lee, Thomas. (See Weitzel and Lee.)						
Lee, Thomas, Cincinnati, Ohio. Strainer of water under pressure.....	376,324	Jan. 10	846	223	42	171
Lee, Thomas, Cincinnati, Ohio. Peanut-roaster.....	378,256	Feb. 21	1379	361	42	780
Lee, Tobias A., Sidney, Ohio. Buckle.....	380,209	Mar. 27	2002	535	42	1374
Lee, William E., Long Prairie, Minn. Safe-lock.....	391,056	Oct. 16	1236	329	45	254
Lee, William W. (See Moakley, Michael V., assignor.)						
Lee, William W., Northampton, Mass. Lawn-sprinkler.....	384,699	June 19	1297	339	43	1383
Lee, William W., Northampton, Mass. Carving-fork.....	390,449	Oct. 2	410	105	45	84
Lee, William W., Northampton, Mass. Carving-fork.....	393,510	Nov. 27	1962	511	45	1001
Lee, Zachary T., Kosciusko, Miss. Pen, cotton-seed, or corn planter.....	382,886	May 15	1495	392	43	818
Leech, John F. (See O'Hare, Hugh, assignor.)						
Leech, William A., and G. W. Fogle, New Comerstown, Ohio. Nut-lock.....	380,123	Mar. 27	1891	503	42	1351
Leedom, Connor W. (See Marshall, Joseph S., assignor.)						
Leedom, Samuel W. (See Davey, Petherick, assignor.)						
Leeds, Albert R., Hoboken, N. J. Electrical apparatus for purifying water.....	383,184	May 22	1949	511	43	915
Leedy, Isaac. (See Duncan, Beverly W., assignor.)						
Leek, John W., Cincinnati, Ohio. Two-wheeled vehicle.....	393,989	Dec. 4	374	101	45	1143
Lecerbeck, Adolph R., Copenhagen, Denmark. Making dietary malt-powder.....	390,239	Oct. 2	62		45	16
Lefebvre, Henry, assignor of one-half to J. C. Wilson, Philadelphia, Pa. Cutting attachment for sewing-machines.....	382,169	May 1	426	111	43	592
Lefever, Daniel M., assignor to Le Fever Arms Company, Syracuse, N. Y. Charge-indicator for breech-loading fire-arms.....	385,360	July 3	35	11	44	9
Lefferts, Marshall C., New York, N. Y., and J. H. Stevens, Newark, N. J. Ink.....	380,654	Apr. 3	517		43	105
Lefmann, Henry, Philadelphia, Pa. Manufacture of carbonic acid and heavy magnesia.....	383,957	June 5	171	50	43	1153
Lefmann, Julius, and D. McAllister, St. Louis, Mo. Draw-head for street-cars.....	394,777	Dec. 18	1607	422	45	1402
Leforestier, Alexander, Philadelphia, Pa. Musical wind-instrument.....	382,991	May 15	1638	429	43	845

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Doc.	Vol.	Page.
Leforestier, Alexandre, assignor of one-half to B. F. Banes, Philadelphia, Pa. Belt-fastening	392,873	Nov. 13	1027	263	45	801
Lefort, Jules F., Paris, France. Construction of water-wheels with movable floats or paddles	382,887	May 15	1496	392	43	818
Legat, Désiré M., Paris, France. Pipe-coupling	390,240	Oct. 2	64	18	45	16
Legates, William T., Federalsburg, Md. Whittletree-hook	389,396	Sept. 11	909	237	44	1253
Legg, Benjamin A., assignor to J. A. Jeffrey, Columbus, Ohio. Drive-chain	376,325	Jan. 10	848	223	42	171
Legg, Benjamin A., assignor, by mesne assignments, to himself and W. D. Park, Columbus, Ohio. Drive-chain. (Reissue)	10,904	Feb. 21	1610	423	42	825
Legg, Benjamin A., assignor to Lechner Manufacturing Company, Columbus, Ohio. Chain for conveyers	378,139	Feb. 21	1201	313	42	747
Legg, Benjamin A., assignor to Lechner Manufacturing Company, Columbus, Ohio. Drive-chain	378,599	Feb. 28	1877	496	42	887
Legg, Benjamin A., assignor to Jeffrey Manufacturing Company, Columbus, Ohio. Drive-chain	387,081	July 31	2591	682	44	535
Legg, Benjamin A., assignor to Jeffrey Manufacturing Company, Columbus, Ohio. Drive-chain	389,580	Sept. 18	1183	310	44	1311
Leggett, Clinton H., New York, N. Y. Insect-powder distributor	376,600	Jan. 17	1236	325	42	252
Lehman, Joseph H., Philadelphia, Pa. Electric gas-lighter	392,440	Nov. 6	390	96	45	668
Lehman, Simon S., Martineville, assignor of one-half to C. K. Herr, West Lampeter, Pa. Car-coupling	394,584	Dec. 18	1282	336	45	1338
Lehmann, Adolf, assignor of one-half to J. F. Luth, New York, N. Y. Caster	381,476	Apr. 17	1772	473	43	361
Lehmann, Carl F. W. (See Birge, Champ, and Lehmann.)						
Lehmer, James D. (See Harris, Bradner L., assignor.)						
Lehmer, James D., et al. (See Harris, Bradner L., assignor.)						
Lehnert, Henry G., Philadelphia, Pa. Drum	382,045	May 1	256	66	43	560
Lehnering, August L. (See Ellis, Edgar E., assignor.)						
Lehr, Harry, assignor of one-half to I. Locks, New York, N. Y. Finger-ring or other article of jewelry	391,057	Oct. 16	1238	329	45	254
Lehr, Joseph W. and N. P., Fremont, Ohio. Cultivator	389,088	Sept. 4	411	108	44	1151
Lehr, Nicholas P. (See Lehr, Joseph W. and N. P.)						
Lehy, Geoffrey B., Boston, Mass. Air-brake attachment	381,392	Apr. 17	1643	437	43	336
Leibersperger, George R. (See Bailey and Leibersperger.)						
Leibrock, Louis. (See Tugle, Leibrock, and Seitz.)						
Leichsenring, Hermann R., Schönebeck, Prussia, Germany. Apparatus for putting driving-belts on pulleys	382,046	May 1	258	66	43	560
Leidig, Hermann. (See Von Plotow and Leidig.)						
Leidigh, Samuel. (See Heimg and Leidigh.)						
Leigh, Daniel, Groveport, Ohio. Cultivator-shovel	385,275	June 26	2159	551	43	1564
Leightam, Joseph, assignor of one-half to D. & E. Kremp, Reading, Pa. Boiler	389,969	Sept. 25	1776	471	44	1435
Leighton, Carleton F., assignor of two-thirds to C. S. Hill, Beverly, and F. D. Greene, Boston, Mass. Heel beading and milling tool	391,753	Oct. 23	2189	590	45	450
Leighton, James T., New Haven, Conn. Harrow and clod-crusher	378,011	Feb. 14	1008	263	42	703
Leighton, James T., New Haven, Conn. Harrow and clod-crusher	378,012	Feb. 14	1010	263	42	704
Leighton, John T., Edinburgh, county of Edinburgh, Scotland. Electro-magnetic spectacles	381,260	Apr. 17	1453	391	43	298
Leilich, Francis T., Bridgeport, Conn. Sewing-machine	386,252	July 17	1361	358 359	44	280
Leiman, Henry, Brooklyn, N. Y. Cigar-box-trimming machine	389,708	Sept. 18	1390	364	44	1349
Lein, John P., New York, N. Y. Coffin-fastener	386,641	July 24	1924	508	44	401
Leinbach, Felix W., et al. (See Lorenz, William A., assignor.)						
Leinbach, Felix W., et al. (See Lorenz and Honiss, assignors.)						
Leinbach, Felix W., Bethlehem, Pa. Paper bag	390,607	Oct. 2	567	150	45	114
Leinbach, Felix W., Bethlehem, Pa. Paper bag	391,804	Oct. 30	2280	618	45	478
Leinbach, Felix W., Bethlehem, Pa. Paper bag	391,805	Oct. 30	2281	618 619	45	478
Leineweber, Hermann, South Chicago, Ill. Magazine fire-arm	379,794	Mar. 20	1369	364 365	42	1242
Leiningner, Frederick, assignor to C. D. Shepard, New York, N. Y. Step for spindles	377,902	Feb. 14	850	217	42	672
Leiningner, Frederick, assignor to C. D. Shepard, New York, N. Y. Belt-tightener	379,116	Mar. 6	374	106	42	1036
Leinwather, Aloys M., assignor of one-half to H. Glaser, Vienna, Austria-Hungary. Railway-car	393,700	Nov. 27	2256	592	45	1059
Leisner, William, Los Angeles, Cal. Combined cane and stool	391,901	Oct. 30	2419	654	45	505
Leiter, Josef, Vienna, Austria-Hungary. Laryngoscope	376,601	Jan. 17	1238	325	42	253
Leith, Alexander J. (See Beaver-Webb, John, assignor.)						
Levy, Solomon, Harrisonville, Mo. Fire-escape	385,361	July 3	36	11	44	9
Leland, Edwin A., assignor to C. C. Glock, Meriden, Conn., and L. Richardson, Brooklyn, N. Y. Railway-car-heating apparatus	384,452	June 12	912	237	43	1303
Leland, Sanford D., assignor of two-thirds to G. S. Lewis and F. E. Fay, Holyoke, Mass. Tap-driving head	393,511	Nov. 27	1963	511 512	45	1001
Lemaire, Henri F. M., Paris, France, assignor to C. C. Delmonico, New York, N. Y. Cigarette	384,858	June 19	1528	397	43	1428
Leman, Frank, Elgin, Ill. Pinion-cutting machine	377,945	Feb. 14	919	237 238	42	687
Leman, Frank, Elgin, Ill. Machine for pointing, drilling, and reaming	380,496	Apr. 3	276	76 77 78	43	57
Leman, Frank, Elgin, Ill. Machine for the manufacture of pillars for watch-plates	380,497	Apr. 3	279	78 79 80	43	57
Leman, Frank, Elgin, Ill. Machine for the manufacture of gear-wheels	380,498	Apr. 3	283	80 81 82	43	58
Leman, Frank, Elgin, Ill. Manufacture of pinion-blanks	380,499	Apr. 3	287	82 83 84	43	58
Leman, John L. P., Surbiton, county of Surrey, assignor to F. Lepper, Middlesex, England. Dental articulator	386,711	July 24	2022	533	44	419
Lemassena, Lillian. (See Zeff, James, assignor.)						
Lemberger, Edward, Toledo, Ohio. Writing-desk appendage	387,082	July 31	2503	683	44	535
Lemen, Jacob F., Bedington, W. Va. Fence	379,279	Mar. 13	601	165	42	1085
Lenke, Alexander M., East Saginaw, Mich. Wood-cutting machine	392,126	Oct. 30	2766	751	45	573
Lemley, David. (See Lemley, George and D.)						
Lemley, George and D., New Orleans, La. Ventilator	391,902	Oct. 30	2421	655	45	506
Lemly, Charles C., Merrill, Wis. Flue-thimble	384,918	June 19	1609	418	43	1443

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Lemmon, Joseph P., Barnegat, N. J. Veterinary drencher .....	389,307	Sept. 11	783	199	44	1329
Lemon, G. Harland. (See Lemon, Hamlin T., assignor.)						
Lemon, Hamlin T., assignor of one-third to G. H. Lemon, Richmond, Ind. Atmospheric clothes-washer .....	384,453	June 12	913	238	43	1303
Lemp, Hermann. (See Buckingham and Lemp.)						
Lemp, Hermann. (See Wightman and Lemp.)						
Lemp, Hermann, Hartford, assignor to Schuyler Electric Company, Middletown, Conn. Armature for dynamo-electric machines .....	376,326	Jan. 19	850	223	42	171
Lemp, Hermann, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Connecting filaments to leading-in wires .....	392,158	Oct. 30	2816	764	45	583
Lemp, Hermann, Lynn, Mass., assignor to Thomson-Houston Electric Company, of Connecticut. Apparatus for mounting filaments of incandescent lamps .....	392,159	Oct. 30	2818	765	45	583
Lemp, Hermann, and M. J. Wightman, Hartford, Conn. Cut-out for incandescent lamps .....	383,891	June 5	63	20	43	1133
Lenau, Gustavus A., assignor to himself and W. E. White & Co., Providence, R. I. Brace-let-chain .....	385,313	June 26	2920	569	43	1575
Lenhart, George E., assignor of one-half to C. W. McIntyre, St. Paul, Minn. Switch-stand .....	383,738	May 29	2772	730	43	1081
Lenhart, Philip F., Brooklyn, N. Y. Sewer-valve .....	378,600	Feb. 28	1878	496	42	887
Lennon, Sayres N., assignor of one-half to A. H. Winchell, Huron, Ohio. End-gate for wagons .....	393,916	Nov. 20	1240	322	45	849
Lennox, Walter C. (See Van Horn, William, assignor.)						
Lent, Alvah F. and J. S., Sing Sing, N. Y. Adjustable lamp-holder .....	389,308	Sept. 11	784	199	44	1229
Lent, James S. (See Lent, Alvah F. and J. S.)						
Lentz, August, assignor to Stettiner Chamotte Fabrik Actien-Gesellschaft, formerly Didier, Prussia, Germany. Device for charging retorts .....	376,531	Jan. 17	1142	299	42	233
Lentz, Henry P., Columbus, Ohio. Tree extractor and carrier .....	389,089	Sept. 4	412	108	44	1151
Leonard, Charles L., Grafton, Mass. Polishing compound for the soles of shoes .....	378,325	Feb. 21	1480	387	42	799
Leonard, Harry A., and G. Kettlewell, assignors of one-third to R. S. Culbreth, Baltimore, Md. Mechanism for timing horses .....	376,602	Jan. 17	1240	326	42	253
Leonard, Harry A., and G. Kettlewell, assignors of one-third to R. S. Culbreth, Baltimore, Md. Stop-watch .....	379,963	Mar. 27	1650	439	42	1305
Leonard, William R., New York, N. Y. Case for surgical or other instruments .....	391,540	Oct. 23	1903	510	45	391
Leouhardt & Co., A. (See Bender, Fritz, assignor.)						
Leonori, Charles L. (See Adams and Seymour, assignors.)						
Leopold, Charles F. (See Veerkamp, Leopold, and Darker.)						
Leopold, Charles F., assignor to American Manufacturing Company, Philadelphia, Pa. Saw-clamp .....	377,946	Feb. 14	920	238	42	687
Lepper, Francis. (See Leman, John L. P., assignor.)						
Leppert, William, and W. I. Gardiner, Seymour, Ind. Buckboard-wagon .....	386,141	July 17	1189	317	44	248
Lerch, Solomon W., assignor to himself, E. J. Landor, and W. P. Hall, Canton, Ohio. Manufacture of bridge-bars .....	389,210	Mar. 27	2003	536	42	1374
Lerch, William M., Baltimore, Md. Harness-saddle .....	375,942	Jan. 3	294	79	42	61
Lerch, William M., Baltimore, Md. Harness-saddle tree .....	375,943	Jan. 3	294	79	42	61
Lerch, William M., Baltimore, Md. Hame-tug .....	392,352	Nov. 6	261	67	45	644
Lescher, Herman, et al. (See Hooker, John J., assignor.)						
Leschorn, Alexander J., Phoenixville, Pa. Instrument for trigonometrical computations .....	378,257	Feb. 21	1380	362	42	780
Lesure, Frank. (See Alvey and Lesure.)						
Lesh, Peter, Union City, Tenn., assignor to Egan Company, Cincinnati, Ohio. Automatic setting mechanism for spoke-lathes .....	389,157	Sept. 4	542	136	44	1172
Leslie, Benjamin J., Butler, Ky. Pliers or pinchers .....	380,331	Apr. 3	36	13	43	9
Leslie, Edward, Orangeville, Ontario, Canada. Ice and snow-plow for railway-tracks .....	380,042	Mar. 27	1770	474	42	1327
Leslie, Edward, Orangeville, Ontario, Canada. Rotary excavator for removing snow .....	380,809	Apr. 10	758	208	43	159
Leslie, Edward, Orangeville, Ontario, Canada. Rotary excavator for removing snow .....	391,903	Oct. 30	2422	655	45	506
Leslie, Edward, Orangeville, Ontario, Canada. Casing for rotary excavators .....	391,904	Oct. 30	2425	656	45	507
Leslie, J. William, Everett, Mass. Curtain ring or hanger .....	388,055	Aug. 21	1308	353	44	840
Leslie, William F., Nashville, Ark. Combined plow and planter .....	379,897	Mar. 20	1555	409	42	1276
Lesly, Henry, Birmingham, Ala. Railway-switch .....	395,066	Dec. 25	2069	535	45	1500
Lesson, Philip, Newark, N. J. Sickle .....	392,041	Oct. 30	2627	714	45	546
Lestelle, Pascal. (See Dietz, Christoph F., assignor.)						
Lester, Daniel M., Norwich, Conn. Mechanical movement .....	394,585	Dec. 18	1283	336	45	1338
Lester, Daniel M., Norwich, Conn. Envelope-machine .....	394,586	Dec. 18	1285	337	45	1338
Lester, Isaac L., and J. Whittly, Whitehead, Tex. Cotton planter and chopper .....	390,241	Oct. 2	65	18	45	16
Letstina, Otto, Derby, Conn. Piano-pedal .....	392,737	Nov. 13	827	210	45	769
Letchworth, Josiah, Buffalo, N. Y. Snap-hook .....	380,124	Mar. 27	1892	504	42	1352
Letchworth, Ogden P., Buffalo, N. Y. Combined snap-hook and buckle .....	392,936	Nov. 13	1096	284	45	814
Lethert, Anthony, assignor to himself and M. Geis, Jordan, Minn. Vegetable-cutter .....	381,261	Apr. 17	1454	291	43	298
Letzkus, Anthony, Pittsburg, Pa. Valve-saddle for tapping water or other mains .....	390,490	Oct. 2	410	106	45	84
Leukhardt, August. (See Modyer and Leukhardt.)						
Leupold, William, Channahon, Ill. Fodder-binder .....	385,126	June 26	1934	494	43	1518
Leutner, Ignaz, Halle-on-the-Saale, Prussia, Germany. Reservoir pen-holder .....	387,686	Aug. 14	746	191	44	722
Leutz, William. (See Sheridan, William, assignor.)						
Levans, Henry, Vergennes, Vt. Potato-digger .....	389,970	Sept. 25	1778	471	44	1435
Levasseur, John E., Monticello, Iowa, assignor to G. W. Simpson, Somerville, Mass. Butter-can .....	380,211	Mar. 27	2004	536	42	1375
Levey, Louis H. (See Jacob and Levey.)						
Levey, William M. (See Jacob and Levey.)						
Levison, Chancellor G., assignor to T. B. Mills, Brooklyn, N. Y. Fishing-fly book .....	392,959	Nov. 13	1146	298	45	823
Levy, Charles M. (See Thie and Levy.)						
Levy, Charles S., New York, N. Y. Curling-comb .....	379,650	Mar. 20	1156	306	42	1199
Levy, Jacob. (See Kramer and Levy.)						
Levy, Max, Newport, R. I. Holder for yard-sticks .....	377,526	Feb. 7	271	68	42	547
Levy, Michael D., New York, N. Y. Leader for scarf-neckbands .....	388,983	Sept. 4	260	69	44	1123
Lewellen, Andrew M., Rosendale, Mo. Collin-depositor .....	377,834	Feb. 14	758	193	42	654
Lewis, Albert C., Brooklyn, N. Y. Apparatus for mingling and combining gases .....	378,336	Feb. 21	1481	387	42	799
Lewis, Annie, Galveston, Tex. Clasp .....	380,125	Mar. 27	1892	504	42	1352
Lewis, Annie, Galveston, Tex., assignor of one-half to J. E. Moeser, New York, N. Y. Bobbin-winder for sewing-machines .....	391,995	Oct. 30	2427	656	45	507
Lewis, Charles E. F., Brooklyn, N. Y. Watch or other case .....	393,248	Nov. 20	1561	409	45	914
Lewis, Charles P., Sweet Springs, W. Va. Brace for bedsteads .....	381,262	Apr. 17	1456	392	43	299
Lewis, Charles W., New York, N. Y. Box for packing cloaks, &c .....	389,369	Sept. 11	785	199	44	1229
Lewis, Daniel F. (See Fowler and Lewis.)						
Lewis, Dio, Prescott, Ark. Fabric-tinting implement .....	388,422	Aug. 28	1900	507	44	957
Lewis, Ellsworth J., Bellaire, Ohio. Automatic air-brake .....	383,819	May 29	2916	770	43	1107
Lewis, Eugene F., Preston, Conn. Coal-chute .....	381,147	Apr. 17	1294	346	43	268

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Lewis, Evan, and F. Armstrong, Kingston, Pa. Car-axle box.....	379,654	Mar. 20	1157	306	42	1199
Lewis, George E., Seneca Falls, N. Y. Traction-wheel.....	388,423	Aug. 28	1901	508	44	958
Lewis, George S., <i>et al.</i> (See Leland, Sanford D., assignor.)						
Lewis, George T., Philadelphia, Pa. Manufacturing sublimed lead pigment from Galena ore.	386,836	July 31	2244	590	44	468
Lewis, George W., <i>et al.</i> (See Godwin, Le Roy C., assignor.)						
Lewis, George W., assignor to himself, A. P. Grice, and L. C. Goodwin, Portsmouth, Va. Seal-lock.....	388,908	Aug. 21	1570	418	41	888
Lewis, Hiram E., Gold Hill, Nev. Candlestick.....	379,171	Mar. 6	437	123	42	1049
Lewis, James A., St. Clairsville, Ohio. Foot-warming apparatus for beds.....	385,865	July 10	799	212	44	163
Lewis, John P. (See Mattes and Lewis.)						
Lewis, Ledyard V., and S. S. Allen, Sun Prairie, Wis. Corn harvester.....	394,704	Dec. 18	1471	{ 384 385 }	45	1374
Lewis, Levi J., San Francisco, Cal. Dump-car.....	390,867	Oct. 9	932	{ 245 246 }	45	189
Lewis, Pearl C., Catskill, N. Y. Convertible chair and cot.....	386,142	July 17	1191	{ 317 318 }	44	249
Lewis, Richard. (See Edwards, Lewis, and Jones.)						
Lewis, Robert H., and S. McCloud, Chicago, Ill. Nail.....	394,866	Dec. 18	1758	455	45	1430
Lewis, Russell H., assignor to F. Richardson, Providence, R. I. Guide for heel-plates.....	379,898	Mar. 20	1557	410	42	1277
Lewis, Russell H., assignor to B. L. Hall & Co., Providence, R. I. Hinged shoe-button.....	381,177	Apr. 17	1773	473	43	361
Lewis, Thomas. (See Carter, John, assignor.)						
Lewis, Thomas E., Vicksburg, Miss. Machine for cutting buttons from shoes.....	390,868	Oct. 9	933	246	45	189
Lewis, Truman C., Delaware, Ohio. Railway-signal.....	378,451	Feb. 28	1670	438	42	844
Lewis, Truman C., Delaware, Ohio. Railway-signal.....	393,017	Nov. 20	1244	322	45	849
Lewis, Willard L. (See Dart and Lewis.)						
Lewis, Willard L., Walpole, Mass. Cotton-batting machine.....	386,143	July 17	1197	318	44	249
Lewis, Willard L., Walpole, Mass. Cotton or other batting.....	388,056	Aug. 21	1309	353	44	840
Lewis, William. (See Luscomb and Corey, assignors.)						
Lewis, William F. (See Tobey, Fred. W., assignor.)						
Lewis, William F., Washington, D. C. Bag-holder.....	384,454	June 12	914	238	43	1303
Lewis, William H., Brooklyn, assignor to E. & H. T. Anthony & Company, New York, N. Y. Photographic apparatus.....	379,964	Mar. 27	1633	{ 440 441 }	42	1305
Lewis, William H., Brooklyn, assignor to E. & H. T. Anthony & Company, New York, N. Y. Photographic camera.....	386,996	July 31	2475	650	44	513
Lewis, William H., Brooklyn, assignor to E. & H. T. Anthony & Company, New York, N. Y. Plate-holder.....	388,057	Aug. 21	1310	353	44	840
Lewis, William H., Brooklyn, assignor to E. & H. T. Anthony & Company, New York, N. Y. Roll-holder for sensitive films.....	391,167	Oct. 16	1390	370	45	282
Lewis, William J., Pittsburg, Pa. Rolling-mill.....	392,210	Nov. 6	46	12 13	45	603
Lewton, George W., Centre Point, Iowa. Water-heater.....	385,276	June 26	2159	552	43	1564
Lezard, Edward J., London, county of Middlesex, England, assignor of one-half to A. S. Lascelles & Co., New York, N. Y. Device for holding watches.....	381,936	May 1	51	14	43	525
Lichtentag, Isaac, New Orleans, La. Composition for the manufacture of artificial stone or cement.....	377,036	Jan. 31	1962		42	393
Lieb, Charles A., New York, N. Y. Automatic grain-scale.....	377,433	Feb. 7	130	29 30	42	519
Libbey, Hosea W., Boston, Mass. Spark-arrester.....	381,707	Apr. 24	2112	552	43	447
Libbey, Hosea W., Boston, Mass. Arc lamp.....	391,477	Oct. 23	1820	487	45	373
Libby, Frederick M., Portland, Me. Perforated pen-holder.....	383,185	May 22	1951	512	43	916
Liberth, Jesper J. H., New York, N. Y. Ironing-board.....	382,170	May 1	428	112	43	592
Liberty, Peter. (See English, Eli, assignor.)						
Licardie, Camille, Clermont, De San Marcos, Guatemala. Fish-plate.....	382,047	May 1	259	67	43	561
Licht, Philip, Jr., East Williamsburg, N. Y. Rocket.....	393,990	Dec. 4	375	101	45	1143
Lichtenstein, Benjamin, <i>et al.</i> (See Smith, James E., assignor.)						
Liddell, Mark J., South Englewood, Ill. Stove-pipe drum.....	391,541	Oct. 23	1904	511	45	391
Liddell, Walter J. F., assignor of one-half to W. S. Liddell, Charlotte, N. C. Baling-press.....	381,263	Apr. 17	1457	393	43	299
Liddell, Walter S. (See Liddell, Walter J. F., assignor.)						
Lieb, Charles A., New York, N. Y. Board-beveler.....	392,616	Nov. 13	654	{ 163 164 }	45	726
Lieb, Charles A., New York, and E. Lavens, Brooklyn, N. Y.; said Lavens assignor to said Lieb. Weighing-scale.....	392,617	Nov. 13	655	164	45	726
Liebmann, I., <i>et al.</i> (See Haiman, Elias, assignor.)						
Liebmann, Rudolph, New York, N. Y. Button.....	390,869	Oct. 9	933	246	45	189
Liebmann, Rudolph, assignor to City Button Works, New York, N. Y. Button.....	380,581	Apr. 3	416	118	43	85
Liefer, Henry, Hinsdale, Ill. Wall for frame buildings.....	389,090	Sept. 4	413	108	44	1151
Lieker, Frederic H., Toronto, Ontario, Canada. Manufacturing book-covers.....	391,977	Oct. 30	2331	685	45	527
Lietze, Ernst. (See Barth and Lietze.)						
Liggett, John T., <i>et al.</i> (See Eastwick, Arthur E., assignor.)						
Light, George W., Gallatin, Mo. Hay-rack.....	375,894	Jan. 3	133	39	42	31
Light, George W., Gallatin, Mo. Feed-rack.....	387,891	Aug. 14	1043	273	44	779
Light, George W., Gallatin, Mo. Feed-rack.....	387,892	Aug. 14	1045	274	44	779
Lightburne, Stafford, Jr., St. Louis, Mo. Distance-indicator for railway-cars.....	393,249	Nov. 20	1562	{ 409 410 }	45	914
Lightfoot, Benjamin H., Allegheny, Pa. Rail-joint.....	392,441	Nov. 6	392	96	45	668
Lightham, Joseph, assignor of one-half to W. P. Boger, Lebanon, Pa. Derrick.....	376,037	Jan. 3	436	116	42	87
Ligon, James J. (See Paulty and Ligon.)						
Liles, Charles E. (See McMahon, Sharp, and Liles.)						
Lilley, Henry, assignor of one-half to J. T. Hillsley, Philadelphia, Pa. Making pipe-hooks.....	390,491	Oct. 2	412	106	45	84
Lillibridge, Frank M., <i>et al.</i> (See Dumontier, Alexander C., assignor.)						
Lillie, Benjamin A., San Francisco, Cal. Fruit-stoning machine.....	383,739	May 29	2773	{ 730 731 }	43	1081
Lillie, Benjamin A., San Francisco, Cal. Fruit-stoning machine.....	384,371	June 12	804	299	43	1281
Lillie, S. Morris, Philadelphia, Pa. Vacuum apparatus for evaporating liquids.....	378,843	Feb. 28	2243	598	42	956
Lilly, Edward A., Philadelphia, Pa. Expansion drill or reamer.....	387,169	July 31	2730	716	44	558
Lillygren, John N., Muscatine, Iowa. Door.....	386,018	July 10	1004	267	44	295
Lincoln, Charles B. F., San Francisco, Cal. Adding-machine.....	390,788	Oct. 9	822	219	45	169
Lincoln, Charles L., assignor of one-half to A. P. Van Tuyl, Jr., Brooklyn, N. Y. Dumb-waiter.....	383,958	June 5	172	50	43	1153
Lincoln, John L., Chicago, Ill. Clothes-drier.....	380,332	Apr. 3	37	14	43	10
Lindahl, Daniel, Chesterton, Ind. Weight-motor.....	379,316	Mar. 13	660	178	42	1096
Lindas, Hans, Stoughton, Wis. Stove.....	385,938	July 10	965	241	44	185
Lindauer, Sigmund, <i>et al.</i> (See Benson, Henry L., assignor.)						
Lindberg, Theodore. (See Renbel and Lindberg.)						
Lindblad, Andrew, Grand Crossing, Ill. Portable house.....	388,424	Aug. 28	1902	508	44	958

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Lindemann, Albert J., Milwaukee, Wis. Vapor-stove.....	390,870	Oct. 9	934	246	45	189
Lindemann, Albert J. and C., Milwaukee, Wis. Sheet-metal pipe.....	378,694	Feb. 28	2017	533	42	913
Lindemann, Charles. (See Lindemann, Albert J. and C.)						
Lindemann, Ernest C., Baltimore, Md. Underground conduit for electric wires.....	376,893	Jan. 24	1705	445	42	348
Linden, Peier, assignor of one-half to D. Peters, Troy, N. Y. Boot-heel.....	380,292	Mar. 27	2119	564	42	1396
Lindenthal, Gustav, Pittsburg, Pa. Squeezer.....	378,695	Feb. 28	2018	533	42	913
Lindenthal, Gustav, Pittsburg, Pa. Cable for suspension-bridges.....	378,696	Feb. 28	2019	533	42	914
Lindenthal, Gustav, Pittsburg, Pa. Suspender-connection for bridge-cables.....	378,697	Feb. 28	2020	534	42	914
Lindenthal, Gustav, Pittsburg, Pa. Refining iron.....	380,442	Apr. 3	198		43	41
Linder, George. (See Farner and Linder)						
Linder, George, and C. Farner, Milwaukee, Wis. Box-fastener.....	376,805	Jan. 24	1582	414	42	325
Linderman, Albert T., Whitehall, Mich. Box.....	378,601	Feb. 28	1870	497	42	887
Linderman, Albert T., Whitehall, Mich. Packing-box.....	379,652	Mar. 20	1158	306	42	1200
Linderman, Albert T., assignor to E. A. Linderman, Whitehall, Mich. Lumber trimming and assorting machine.....	378,796	Feb. 28	2148	563	42	938
Linderman, Ella A. (See Linderman, Albert T., assignor.)						
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Sulky-plow.....	376,532	Jan. 17	1143	{ 299 } 300	42	233
Lindgren, August, assignor to Moline Plow Company, Moline, Ill. Draft-equalizer.....	376,533	Jan. 17	1144	300	42	234
Lindgren Extinguisher Company. (See Smith, Weir, Carson, and Weir, assignors.)						
Lindley, Lafayette W., Louisville, Ky. Fence-post.....	382,992	May 15	1639	429	43	845
Lindley, Lafayette W., Louisville, Ky. Wire-fence stay.....	386,019	July 10	1006	267	44	205
Lindner, Carl A., Louisville, Ky. Ottoman.....	388,887	Sept. 4	122	33	44	1095
Lindner, Charles, and T. F. Hammer, Branford, Conn. Salt-feeding device.....	382,048	May 1	259	67	43	561
Lindner, Ernst, assignor of one-half to E. P. Gleason Manufacturing Company, New York, N. Y. Attachment for turning-lathes.....	377,079	Jan. 31	1968	517	42	406
Lindner, Ernst, assignor of one-half to E. P. Gleason Manufacturing Company, New York, N. Y. Turning-lathe.....	377,980	Jan. 31	1969	517	42	406
Lindsay, John P., West Derby, Vt. Garment-supporter.....	392,042	Oct. 30	2628	714	45	546
Lindsay, Marcellus J., and D. M. Ross, Bellevue, Iowa. Measuring-tank for oil.....	384,986	June 26	1707	443	43	1471
Lindsay, William I. (See Cochran and Lindsay.) (Reissue.)						
Lindsay, William J. (See Cochran and Lindsay.)						
Lindsay, William J., Ottumwa, Iowa. Saw-filing machine.....	392,738	Nov. 13	827	210	45	760
Lindsey, Hosea, Asheville, N. C. Car-ventilator.....	391,324	Oct. 16	1604	425	45	323
Lindsey, Leroy J., Seymour, Iowa. Railway-switch.....	389,582	Apr. 3	417	{ 118 } 119	43	85
Lindsley, Edward, Cleveland, Ohio. Street-box and shut-off for water, gas, or other fluid service.....	383,472	May 29	2390	636	43	1003
Lindstrom, John, Rockford, Ill. Shoe.....	379,172	Mar. 6	438	124	42	1049
Lineback, J. T. (See Goodnight, Isaac N., assignor.)						
Linendoll, George V., Coldwater, Mich. Railway-chair.....	386,144	July 17	1199	319	44	250
Lines, Augustus A., Homer, N. Y. Carriage-top-prop block.....	387,893	Aug. 14	1046	274	44	780
Lines, Fred, assignor of two-thirds to F. Hisley and M. J. Hogan, Syracuse, N. Y. Fifth-wheel.....	384,632	June 19	1187	{ 313 } 314	43	1362
Lines, John, and M. A. Morris, assignors to Scovill Manufacturing Company, Waterbury, Conn. Hasp-fastening for trunks, &c.....	390,492	Oct. 2	412	106	45	85
Lines, Samuel M., Indianapolis, Ind. Clasp.....	382,480	May 8	916	232	43	693
Lines, Violetta, administratrix. (See Cooke and Bottomley.)						
Linfert, Henry H. (See Dawes, Thomas W., assignor.)						
Link, William D., Cincinnati, Ohio, assignor of one-fourth to B. F. McMillan and G. W. Robison, Stockton, Ala. Log-canting device.....	379,403	Mar. 13	780	210	42	1119
Linnenbrügge, Adolf W. F. G. (See Nagel, Kaemp, and Linnenbrügge.)						
Linney, Joseph S., et al. (See Young, John R., assignor.)						
Linscott, John F., Jefferson, Ill. Cook-stove ventilator.....	380,500	Apr. 3	290	24, 85	43	59
Linscott, John J., et al. (See Beedy, Seth E., assignor.)						
Linscott, John M., Worcester, Mass. Car-starter.....	381,393	Apr. 17	1644	438	43	337
Linsley, Newton, Freeport, Ill. Spring-hinge.....	393,376	Nov. 27	1755	465	45	959
Linsley, Newton, and C. E. Forry, Freeport, Ill. Surface-gage.....	391,937	May 1	52	14	43	525
Linsley, Newton, and A. B. Curtis, Freeport, Ill. Cork-extractor.....	388,888	Sept. 4	123	33	44	1096
Linton, Charles B., Brooklyn, N. Y., assignor to Unexcelled Fire-Works Company, New York, N. Y. Machine for charging fire-works.....	376,004	Jan. 3	386	102	42	78
Linville, Benjamin A. (See Miller, John F., assignor.)						
Linville, Jacob H., Philadelphia, Pa. Printing-telegraph.....	377,763	Feb. 14	692	{ 161 } 162 163	42	626
Lion, Michel L., London, and F. Cutlan, Castle Hill, Wellingborough, assignors to Ab-Intra Boot Making Process Company, (limited,) London, England. Manufacture of boots or shoes.....	376,411	Jan. 10	963	251	42	193
Lipman, Lewis A., assignor to Boorum & Pease, New York, N. Y. Memorandum-book-cover fastener.....	395,155	Dec. 25	2925	572	45	1527
Lipphard, John F., Washington, D. C., assignor of one-half to R. Copp, New York, N. Y. Hoop for trundling.....	378,327	Feb. 21	1482	337	42	799
Lippincott, Jesse H., et al. (See Nienstädt, Ernst, assignor.)						
Lippincott, John W., Westminster, Ohio. Ear-muff.....	379,965	Mar. 27	1655	441	42	1305
Lippitt, Anna, et al. (See Lippitt, Elihu, assignor.)						
Lippitt, Elihu, assignor to A. Lippitt, A. Mercer, H. H. Sturtevant, and J. Martin, Zanesville, Ohio. Circular-knitting machine.....	394,587	Dec. 18	1287	{ 337 } 338	45	1338
Lippitt, Henry F., assignor to Cop Dyeing Company, Providence, R. I. Hollow perforated tube for dyeing.....	394,778	Dec. 18	1608	422	45	1403
Lipps, John. (See Roberts and Lipps.)						
Lipps, John, assignor of one-half to T. S. Roberts, Rockford, Iowa. Hame attachment.....	389,520	Sept. 11	1086	287	44	1286
Lippy, David, Mansfield, Ohio. Cash-carrier.....	379,583	Mar. 20	1061	283	42	1181
Lippy, David, Mansfield, Ohio. Cash and parcel carrier.....	390,378	Oct. 2	255	268	45	54
Lipsett, James T., et al. (See Goettel, John, assignor.)						
Lischer, John W., Syracuse, N. Y. Street-sprinkler.....	392,043	Oct. 30	2629	{ 714 } 715	45	546
Lisk, George W., Clifton Springs, N. Y. Commode-pail.....	393,991	Dec. 4	375	102	45	1143
Lisk, Joseph P., Macedon, assignor of two-thirds to G. F. Everson and L. P. Engel, Palmyra, N. Y. Feed-water regulator.....	394,929	Dec. 18	1868	483	45	1450
Lisk, Joseph P., Macedon, assignor of two-thirds to G. F. Everson and L. P. Engel, Palmyra, N. Y. Valve for steam-engines.....	394,930	Dec. 18	1860	483	45	1450
Lissberger, Milton L., assignor to New York Smelting and Refining Company, New York, N. Y. Sash-weight.....	379,317	Mar. 13	662	179	42	1096



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
List, George A. (See List and Kosakoff, assignors.)						
List, Victor, and J. Kosakoff, assignors of one-third to G. A. List, Moscow, Russia. Petroleum-motor	378,328	Feb. 21	1483	387	42	800
List, William A., Wheeling, W. Va. Stove-pipe	381,021	Apr. 10	1084	388	43	219
Lister, Robert A., and G. S. Richmond, Dursley, county of Gloucester, England; said Richmond assignor to said Lister. Grinding-mill	389,310	Sept. 11	786	199	41	1229
Litchard, George F., Paw Paw, Mich. Vehicle-tongue support	376,667	Jan. 17	1351	355	42	273
Litchfield, G. V., et al. (See Cleck, James D., assignor.)						
Litchfield, Homer, assignor of one-half to E. H. Beer, North Adams, Mass. Let-off mechanism for looms	479,173	Mar. 6	439	121	42	1050
Litchfield, Isaac W., Warwick, assignor of one-half to P. K. Dumaresq, New York, N. Y. Sewing-machine	386,837	July 31	2245	590	44	468
Littell, Hardin H. (See Littell, Harvey M., assignor.) (Reissue.)						
Littell, Hardin H., Louisville, Ky. Track-scraper	385,062	June 26	1844	472	43	1499
Littell, Hardin H., Louisville, Ky. Rail for street-railways	390,979	Oct. 9	1107	392	45	222
Littell, Harvey M., St. Paul, Minn. Track-scraper for railways	376,668	Jan. 17	1355	356	42	273
Littell, Harvey M., St. Paul, Minn., assignor of one-half to H. H. Littell, Louisville, Ky. Track-scraper for railways. (Reissue.)	10,895	Jan. 24	1854	489	42	377
Littell, Norris, Memphis, Tenn. Oil-press	392,618	Nov. 13	656	161	45	726
Littenberg, Solomon. (See Gordon, Myer, assignor.)						
Little, Addison M., Menasha, Wis. Machine for making excelsior	382,431	May 8	829	212	43	677
Little, Charles H., Pittsburg, Pa. Device for carrying cars over temporary obstructions	382,711	May 15	1261	330	43	770
Little, Elizabeth N., Newton, Mass. Basket	388,425	Aug. 28	1903	508	44	958
Little, Horace B. (See Swain, John M., assignor.)						
Little, James L., Jr. (See Hewett, Ernest M., assignor.)						
Little, James R., assignor to Quincy Metal Wheel Company, Quincy, Ill. Manufacturing metal wheels	386,325	July 17	1462	386	44	298
Little, James R., assignor to Quincy Metal Wheel Company, Quincy, Ill. Wheel	386,326	July 17	1463	387	44	299
Little, Orton C., Menasha, Wis. Feed-cutter	384,208	June 5	545	150	43	1227
Little, Orton C., assignor to D. T. H. MacKinnon, Menasha, Wis. Metal-cutting machine	390,978	Oct. 9	1105	292	45	221
Little, Peter E., assignor to Stoddard Manufacturing Company, Dayton, Ohio. Hay-feder	393,115	Nov. 20	1369	357	45	874
Little, William B., New York, N. Y. Combination-gage	390,789	Oct. 9	823	220	45	119
Littlefield, Charles A., assignor to E. A. Tuttle and J. T. Milne, Fall River, Mass. Loom for cross-weaving	380,760	Apr. 10	692	190	43	147
Littlefield, Charles A., assignor to E. A. Tuttle and J. T. Milne, Fall River, Mass. Loom for cross-weaving	380,761	Apr. 10	693	191	43	147
Littlefield, Charles A., assignor to E. A. Tuttle and J. T. Milne, Fall River, Mass. Loom for cross-weaving	386,477	July 24	1693	446	41	357
Littlefield, Charles W., Amesbury, Mass. Railway-car	384,987	June 26	1708	443	43	1451
Littlefield, Dennis G., Albany, N. Y. Grate for stoves or furnaces	390,242	Oct. 2	67	19	45	17
Littlefield, John W., Everett, Mass. Dress-form	384,372	June 12	807	210	43	1282
Littlefield, Richmond H., Somerville, Mass. Car-brake	376,660	Jan. 17	1344	353	42	271
Littlejohn, Charles F., Bridgeport, Conn., assignor, by mesne assignments, to C. H. Langdon, Elizabeth, N. J., and G. C. Batcheller, New York, N. Y. Presser-foot for sewing-machines	387,083	July 31	2503	683	44	536
Littlejohn, Charles F., Bridgeport, Conn., assignor of one-half to E. B. Welch, Cambridge, Mass. Sewing-machine	391,806	Oct. 30	2282	619	45	478
Littleton, Maria, Sandusky, Ohio. Cake or pie pan	386,077	July 10	1086	292	44	222
Livergood, Hiram J., Brantford, Ontario, Canada. Middlings-purifying machine	389,091	Sept. 4	414	109	44	1151
Livingston, George, and A. A. Spenny, Oskaloosa, Iowa. Lubricating-carriage for tile-machines	379,795	Mar. 20	1375	365	42	1244
Livingstone, William, Jersey City, N. J. Door-knob and connecting-shank for the same	380,333	Apr. 3	38	11	43	10
Lloyd, Charles F., Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Flexible guide for rolling-mills	387,170	July 31	2731	717	44	558
Lloyd, Charles F., Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Rolling-mill	394,122	Dec. 4	561	151	45	1178
Lloyd, E. Starr. (See Sagendorph, Frank E., assignor.)						
Lloyd, Edwin L., Philadelphia, Pa. Wire-holder for insulators	394,380	Dec. 11	964	253	45	1266
Lloyd, Harlan P. (See Sagendorph, Longley L., assignor.)						
Lloyd, Harlan P. (See Sagendorph and Keene, assignors.)						
Lloyd, John U., Cincinnati, Ohio. Apparatus for evaporating liquids	385,939	July 10	907	241	44	186
Lloyd, John U., Cincinnati, Ohio. Condensing apparatus	390,243	Oct. 2	69	19	45	17
Lloyd, Marshall B., Cavalier, assignor of one-fourth to J. Conmee, Walsh County, Dak. Ter. Weighing-scale	378,698	Feb. 28	2021	534	42	914
Lloyd, Samuel, Washington, D. C. Steam-boiler alarm	393,911	Dec. 4	264	72	45	1122
Lloyd, Walter C., et al. (See Patterson and Noteman, assignors.)						
Loads, Herbert W., Norwich, county of Norwich, England. Horse-collar	376,669	Jan. 17	1357	356	42	274
Lobdell, Alonzo, Racine, Wis. Manufacture of round reins, &c.	379,796	Mar. 20	1376	365	42	1244
Lobdell Car Wheel Company. (See Hodgman, Stillman A., assignor.)						
Lobdell, George G., Wilmington, Del. Car-wheel	378,844	Feb. 28	2248	598	42	957
Loch, Joseph, New York, N. Y. Combined latch and lock	387,523	Aug. 7	489	126	41	666
Lochboehler, Nicholas, et al. (See MacFarlane, John, assignor.)						
Locher, James, Decatur, Ill. Picket and barbed fence	388,780	Aug. 28	2410	650	44	1055
Locke, Edward A., Manchester, county of Lancaster, England. Piano-forte, organ, harmonium, or other musical instrument	382,481	May 8	917	232	43	693
Locke, Edward C., New York, N. Y., assignor, by mesne assignments, to G. T. Briggs, Cambridge, Mass. Type-writing machine	376,715	Jan. 17	1428	375	42	287
Locke, Edward W., assignor of one-half to E. Densmore, Grand Rapids, Mich. Machine for manufacturing wooden boxes	390,493	Oct. 2	411	106	45	85
Locke, Howard G., assignor to S. W. Locke, Weymouth, Mass. Last	385,362	July 3	38	12	44	10
Locke, Joseph C., Au Sable Chasm, N. Y. Respirator	390,027	Sept. 25	1858	493	41	1150
Locke, Joseph R., Amesbury, Mass. Vehicle-spring	376,442	Jan. 17	1046	267	42	210
Locke, Milo W., Wilmington, Del. Hoisting and conveying machine	377,947	Feb. 11	922	238	42	687
Locke, Nathaniel C., Salem, Mass. Steam-pressure apparatus	393,164	Nov. 20	1435	375	45	888
Locke, Norman W. (See Locke, Sylvanus D. and N. W.)						
Locke, Richard D., et al. (See Toulmin, Morton, assignor.)						
Locke, Robert D., Titusville, Pa. Pipe-cutter	386,205	July 17	1271	340	41	264
Locke, Susan W. (See Locke, Howard G., assignor.)						
Locke, Sylvanus D., Hoosick Falls, N. Y. Car-coupling	376,387	Jan. 10	929	243	42	186
Locke, Sylvanus D., Hoosick Falls, N. Y. Drive-chain	377,811	Feb. 14	727	184	42	648
Locke, Sylvanus D., Hoosick Falls, N. Y. Car-coupling	378,013	Feb. 14	1012	264	42	704

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Locke, Sylvanus D., Hoosick Falls, N. Y. Paper holder and cutter.....	387,362	Aug. 7	242	62	44	618
Locke, Sylvanus D., Hoosick Falls, N. Y. Grain-binder.....	389,847	Sept. 18	1580	419	44	1388
Locke, Sylvanus D., Hoosick Falls, N. Y. Grain harvester and binder.....	389,848	Sept. 18	1586	420 421 422	44	1389
Locke, Sylvanus D., Hoosick Falls, N. Y. Making drive-chains.....	393,912	Dec. 4	265	72	45	1122
Locke, Sylvanus D., Hoosick Falls, N. Y. Die for making drive-chains.....	393,913	Dec. 4	267	73	45	1123
Locke, Sylvanus D., Hoosick Falls, N. Y. Drive-chain.....	393,992	Dec. 4	376	102	45	1143
Locke, Sylvanus D., Hoosick Falls, N. Y., assignor of one-half to McCormick Harvesting Machine Company, Chicago, Ill. Mold for casting metal.....	383,060	May 15	1766	456	43	870
Locke, Sylvanus D., Hoosick Falls, N. Y., assignor of one-half to McCormick Harvesting Machine Company, Chicago, Ill. Grain-binder.....	389,581	Sept. 18	1184	310 311	44	1311
Locke, Sylvanus D. and N. W., Hoosick Falls, N. Y. Roll-paper holder and cutter.....	389,582	Sept. 18	1189	311	44	1312
Locke, Warren E. (See Prescott and Locke.)						
Lockerbie, Thomas. (See Tollhurst, Glazbrook, Philbey, and Lockerbie.)						
Lockett, John E., Dancyville, assignor of one-half to J. S. and J. W. Rhea, Somerville, Tenn. Cotton-press.....	380,334	Apr. 3	40	15	43	10
Lockhart, Horatio J., Fostoria, Ohio. Washing-machine.....	380,396	Apr. 3	133	40	43	28
Locks, Isidore. (See Lehr, Harry, assignor.)						
Lockwood, Amelia R. (See Bedford, George J., assignor.)						
Lockwood, Charles L., Philadelphia, Pa. Knockdown box.....	382,312	May 8	647	165	43	643
Lockwood, Frederic A., Boston, Mass. Scow.....	386,712	July 24	2023	533	44	419
Lockwood, Frederic A., Boston, Mass. Conveyor-bucket.....	387,649	Aug. 14	690	178	44	711
Lockwood, Frederick J., Bridgeport, Conn. Reel-holder.....	395,156	Dec. 25	2926	572	45	1527
Lockwood, John, Jamaica, N. Y. Water-tower.....	390,960	Oct. 9	1108	293	45	222
Lockwood, Samuel M., Racine, Wis. Wheeled excavator.....	391,627	Oct. 23	2018	546	45	415
Lockwood, Thomas D., Melrose, Mass. Electro-magnetic shunt for telephone-receivers.....	393,165	Nov. 20	1437	375	45	888
Lockwood, William V., assignor of one-half to G. S. Parsons, Waterbury, Conn. Device for returning signals in district-telegraph systems.....	379,404	Mar. 13	781	211	42	1120
Lockwood, William W., Freeport, Kans. Rotary pump.....	391,852	Oct. 30	2350	638	45	491
Lockwood, William W., Freeport, assignor of one-half to F. O. Mott, Anthony, Kans. Wind-wheel.....	385,674	July 3	508	130	44	98
Loder, George D., Covington, Ky. Sash-fastener.....	380,501	Apr. 3	221	85	43	59
Lodge, William, and H. Dreses, Cincinnati, Ohio. Feeding device for drilling.....	385,063	June 26	1845	472	43	1499
Loeb, William, and J. Haak, Dubois, Pa. Suspender-buckle.....	377,627	Feb. 7	415	105	42	574
Loehner, August, St. Louis, Mo. Shaft-hanger.....	383,532	May 29	2488	656	43	1021
Loehr, Miner N., Warsaw, Ind. Thill-coupling.....	391,754	Oct. 23	2189	590	45	450
Loewenbach, Hugo, Milwaukee, Wis. Receipt and record book.....	390,087	Sept. 25	1961	322	44	1472
Loewenbach, Hugo, and W. F. H. Matter, Milwaukee, Wis. Sheet-straightener for printing-presses.....	381,800	Apr. 24	2237	586	43	471
Löffelhardt, Wilhelm F., Hamburg, Germany. Alarm apparatus.....	376,959	Jan. 24	1831	482	42	372
Loffer, Solomon, Maitland, Mo. Hog-trap.....	376,388	Jan. 10	931	244	42	187
Loftie, Henry, Syracuse, N. Y. Window and picture hook.....	378,891	Mar. 6	49	14	42	976
Loftie, Henry, Syracuse, N. Y. Spoon-bait.....	380,028	Sept. 25	1859	493	44	1451
Loftus, Edward C., Oakland, Cal. Ore-feeder.....	378,371	Feb. 21	1543	403	42	812
Logan, George C., New Orleans, La. Station-indicator.....	388,209	Aug. 21	1571	418	44	888
Logan, John. (See O'Hara, Eldredge, and Logan.)						
Logan, John, Waltham, Mass. Making watch-springs.....	377,489	Feb. 7	212	51	42	536
Logan, John, Waltham, Mass. Device for ascertaining the expansibility and contractibility of balance-wheels for watches.....	392,442	Nov. 6	393	96	45	668
Logan, John L. (See Appleton, Charles J., assignor.)						
Logan, Martin, New York, N. Y. Drain for stalls.....	386,997	July 31	2476	650	44	514
Logan, Pleasant D., et al. (See Wise, Andrew J., assignor.)						
Logan, Ralph H. (See Browning and Logan.)						
Logan, Ralph H., and G. H. Culey, Allegheny, assignors to J. K. Collins, Glenfield, Pa. Cigar-bunching machine.....	382,265	May 1	567	143 144	43	618
Logan, Thomas H., Lowell, assignor to Sawyer Spindle Company, Boston, Mass. Spindle-driving device for spinning-machines.....	394,542	Dec. 11	1197	311	45	1307
Logan, William H. (See Shelunt, Alfred D., assignor.)						
Logue, William S., Baltimore, Md. Telegraph-instrument.....	377,110	Jan. 31	2020	529	42	415
Lohman, Louis, Jacksonville, Fla. Saw.....	378,203	Feb. 21	1287	340	42	765
Lombard, Levi W., assignor to J. F. Ryder, Boston, Mass. Spiral friction-clutch.....	390,029	Sept. 25	1860	493	44	1451
Lombard, Robert T., Racine, Wis. Horse-collar fastening.....	376,894	Jan. 24	1705	446	42	348
Lommatsch, Ernst, Plauen, Germany. Washing-machine.....	386,327	July 17	1463	387	44	299
Loney, William. (See Stokes, Loney, and Favell.)						
Long, Alpheus C., Edgar, Ill. Wagon-coupling.....	392,619	Nov. 13	660	165	45	727
Long, Charles R., Louisville, Ky. Window-ventilator.....	383,582	May 29	2549	673	43	1034
Long, Charles S., Hincley, Ill. Base for fence-posts.....	387,081	July 31	2595	683	44	536
Long, Charles S., Aurora, Ill. Fence-post.....	387,085	July 31	2595	683	44	536
Long, David, New Haven, Pa. Barrow-wheel.....	393,250	Nov. 20	1563	410	45	914
Long, George S., assignor of two-thirds to E. H. Judd and F. C. Rockwell, Hartford, Conn. Barrel.....	381,077	Apr. 10	1181	314	43	238
Long, Henry C. (See Craig, Lewis B., assignor.)						
Long, James A., Spokane Falls, Wash. Ter. Scaffold-bracket.....	393,512	Nov. 27	1965	512	45	1001
Long, James R. (See Gowen, Raymond B., assignor.)						
Long, John, Bradninch, county of Devon, England. Fastening for jewelry.....	393,993	Dec. 4	377	102	45	1144
Long, John E., Brooklyn, N. Y. Hand fire-extinguisher.....	379,708	Mar. 20	1244	331	42	1218
Long, Joseph N., and J. McCaffrey, Le Claire, Iowa. Bearing and support of rudder-stocks upon vessels.....	381,148	Apr. 17	1295	346	43	269
Long, Malcolm W., Harrisburg, Pa. Magneto signaling apparatus.....	392,443	Nov. 6	395	97, 98	45	668
Long, Malcolm W., Harrisburg, Pa. Railway-signal.....	392,444	Nov. 6	400	99	45	669
Long, Martin W. (See Gilbert and Long.)						
Long, Napoleon B. B., and P. A. Atchley, Prairie City, Indian Ter. Hoisting-machine.....	387,687	Aug. 14	748	191	44	732
Long, Noah R. (See Rudisill and Long.)						
Long, William S., St. Louis, Mo. Screw-elevator for curtains.....	386,328	July 17	1464	387 388	44	299
Longden, John N. (See Dahl, Ellert A. W., assignor.)						
Longenecker, Andrew J., Elk Grove Cal. Door-securer.....	399,130	Sept. 25	2023	539	44	1484
Longenecker, Jacob M., et al. (See Struble, Charles W., assignor.)						
Longwell, Harlin, Elkland, Pa. Boring-machine.....	392,960	Nov. 13	1147	298 299	45	823
Longwell, Harlin, assignor to B. H. Parkhurst and G. S. Walker, Elkland, Pa. Boring-machine.....	389,849	Sept. 18	1599	422	44	1391
Lonitz, Ernst M. H., Neu Haldensleben, Prussia, Germany. Box for packing money.....	379,966	Mar. 27	1656	441	42	1306

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Looff, Charles I. D., Gravesend, N. Y. Image	390,379	Oct. 2	257	69	45	55
Look, Oliver C., Collinsville, Ill. Combined elod-crusher and roller	391,375	Oct. 16	1679	444	45	337
Looker, William C., and J. Newlove, Union Mills, Ind. Plumb-level	377,396	Feb. 7	44	13	42	504
Loom Pieker Company. (See Carver, Lewis A., assignor.)						
Loomis, Benjamin T., Baltimore, Md. Locomotive smoke-conduit	378,014	Feb. 14	1013	264	42	705
Loomis, Charles F., assignor to Western Indurated Fibre Company, Winona, Minn. Fast-ening for pail-covers	379,797	Mar. 20	1377	366	42	1244
Loomis Electric Manufacturing Company. (See Loomis, Osborn P., assignor.)						
Loomis, Frank F., Akron, Ohio. Dynamo-electric machine	395,157	Dec. 25	2227	572	45	1527
Loomis, George L., Northampton, Mass. Carriage-elevator	389,583	Sept. 18	1190	312	44	1312
Loomis, Osborn P., Somerville, Mass., assignor to Loomis Electric Manufacturing Company, New York, N. Y. Magneto-electric machine	378,892	Mar. 6	50	14	42	976
Loomis, Osborn P., Somerville, Mass., assignor to Loomis Electric Manufacturing Company, New York, N. Y. Commutator-brush for electric generators	381,394	Apr. 17	1646	438	43	337
Loomis, Samuel L., Wright's Station, Cal. Device for supplying air to firemen in burning buildings	386,751	July 24	2079	547	44	429
Lorch, Ernest P., New York, N. Y. Tide-water elevator or system of utilizing the rise and fall of the tides	378,452	Feb. 28	1671	438	42	844
Lord, George S. (See Devereux, Joel, assignor.)						
Lord, Wallace, Pontiac, Ill. Artificial stone	392,160	Oct. 30	2820		45	583
Lore, George W., Dexter, assignor of four-fifths to G. S. and C. T. Sill, L. W. Briggs, and J. S. Spencer, Detroit, Mich. Can-seaming machine	380,212	Mar. 27	2005	536 537	42	1375
Lore, George W., assignor of four-fifths to G. L. and C. T. Sill, L. W. Briggs, and J. S. Spencer, Detroit, Mich. Machine for seaming cans	383,400	May 22	2268	603	43	973
Lorce, Manfred. (See Allen and Lorce.)						
Loree, Manfred, Miamisburg, Ohio. Truck	376,389	Jan. 10	932	244	42	187
Loree, Manfred, assignor of two-thirds to D. P. Clark, Miamisburg, and C. E. Clark, Dayton, Ohio. Truck	380,335	Apr. 3	42	15	43	10
Loree, Manfred U. (See Clark and Loree.)						
Lorenz, Carl, Duisburg, Germany. Calculating-machine	393,478	Nov. 27	1915	501 502	45	989
Lorenz, Rudolf. (See Richter and Lorenz.)						
Lorenz, Wilhelm, Carlsruhe, Baden, Germany. Extractor mechanism for breech-loading guns	378,169	Feb. 21	1240	326	42	755
Lorenz, Wilhelm, Carlsruhe, Baden, Germany. Compressing gunpowder or analogous materials	380,686	Apr. 10	579	159	43	125
Lorenz, Wilhelm, Carlsruhe, Baden, Germany. Percussion-fuse	381,264	Apr. 17	1459	393	43	299
Lorenz, Wilhelm, Carlsruhe, Baden, Germany. Vertical breech-closing mechanism for looms	381,628	Apr. 24	1998	525	43	424
Lorenz, Wilhelm, Carlsruhe, Baden, Germany. Percussion-cap for gun-cartridges	387,723	Aug. 14	802	207	44	732
Lorenz, William A. (See Honiss and Lorenz.)						
Lorenz, William A., Hartford, Conn. Paper bag	380,263	Mar. 27	2073	554 555	42	1389
Lorenz, William A., Hartford, Conn. Paper bag	380,264	Mar. 27	2074	555	42	1389
Lorenz, William A., Hartford, Conn., assignor to F. W. Leinbach and C. A. Wolle, Bethlehem, Pa. Making creases in sheets of flexible or elastic material	380,397	Apr. 3	135	40	43	29
Lorenz, William A., and W. H. Honiss, Hartford, Conn. Pasting apparatus	385,064	June 26	1846	472	43	1409
Lorenz, William A., and W. H. Honiss, Hartford, Conn., assignors to F. W. Leinbach and C. H. Wolle, Bethlehem, Pa. Paper-bag machine	377,314	Jan. 31	2305	670	42	471
Loretz, Arthur J. L., Brooklyn, N. Y. Cutting-machine	383,892	June 5	65	90	43	1133
Lorillard, Pierre, Jr., New York, N. Y. Receptacle for tobacco	381,801	Apr. 24	2229	586	43	471
Lorimer, John H., Philadelphia, Pa. Dyeing or scouring machine	393,769	Dec. 4	51	14, 15	45	1082
Lorimer, John H., Philadelphia, Pa. Apparatus for drying paper-pulp	393,770	Dec. 4	53	15	45	1082
Lorimer, John H., Philadelphia, Pa. Making extracts	394,191	Dec. 11	668	179	45	1208
Loring, Alfred H., et al. (See Green, Edgar M., assignor.)						
Loring, Harrison, Boston, Mass. Bolster for car-trucks	392,739	Nov. 13	830	211	45	761
Lorraine, Madison J., St. Louis, Mo. Car-coupling	391,416	Oct. 23	1734	462	45	355
Lorraine, Madison J., St. Louis, Mo. Car-coupling	392,044	Oct. 30	2630	715	45	547
Lorraine, Madison J., and C. T. Anbin, St. Louis, Mo. Car-coupling. (Reissue.)	10,941	June 26	2259	578	43	1581
Lorscheider, Matt. (See Vielmeyer, Henry W., assignor.)						
Lortzing, Carl, assignor to C. A. Rogers, trustee, Boston, Mass. Apparatus for treating sewage	389,479	Sept. 11	1029	275	44	1275
Loseman, James F. (See Stewart, William A., assignor.)						
Loth, Harry H., and C. Ziegler, Wapakoneta, Ohio. Churn attachment	392,045	Oct. 30	2632	715	45	547
Lothhammer, Francois J., Paris, France. Carburetor	376,248	Jan. 10	744	197	42	152
Lothrop, Leonard R., et al. (See Dean, Henry W., assignor.)						
Lothrop, Llewellyn D., Gloucester, Mass. Combined roller and bell for fishing-boats	375,882	Jan. 3	208	57	42	44
Lott, Arthur, Riddleville, Tex. Fence	377,682	Feb. 7	503	129	42	590
Lottimer, William A. (See Jamieson, Augustus, assignor.)						
Lottridge, Thomas A., Rochester, and J. V. Einsfield, assignors to Chappell, Chase, Maxwell & Co., Oneida, N. Y. Collin-fastener	383,311	May 22	2139	564	43	951
Loucks, Thomas C., et al. (See Rafferty, William J., assignor.)						
Loud, Herbert. (See Fletcher, Edward, assignor.)						
Loud, John J., Weymouth, Mass. Fire-cracker cannon	385,127	June 26	1935	494	43	1518
Loud, John J., Weymouth, Mass. Pen	392,046	Oct. 30	2632	716	45	547
Loud, Lemuel J., Rockland, Mass. Congress gaiter	383,518	July 3	276	71	44	56
Loud, Waldo A., Springfield, Mass. Lawn-mower	390,494	Oct. 2	490	108 109	45	86
Londer, Joel H., Chicago, Ill. Temporary binder	395,158	Dec. 25	2228	573	45	1528
Louze, Amanda M. (See Morrison, Caroline W., assignor.)						
Louze, Michael A. W., and C. T. Murray, Washington, D. C. Ventilator	376,827	Jan. 24	1612	422	42	330
Lounsbery, Horace W., assignor of one-half to J. F. Moore, Corning, N. Y. Locomotive draw-bar	386,888	July 31	2319	610	44	482
Lourie, Herbert M., Keokuk, Iowa. Hoop-lug	375,825	Jan. 3	134	39	42	31
Lourie, Herbert M., Keokuk, Iowa. Force-pump	384,633	June 19	1188	314	43	1363
Lourie, Herbert M., Keokuk, Iowa. Tub-hoop	386,478	July 24	1695	447	44	358
Louther, Winfield S. (See Carter and Louther.)						
Love, John C., Philadelphia, Pa. Electrical railway	381,395	Apr. 17	1647	438 439	43	337
Love, John C., Philadelphia, Pa. Insulator for electrical conductors	392,127	Oct. 30	2767	751 752	45	573
Love, John C., and J. F. Suediker, Philadelphia, Pa., assignors to said Love. Railway-car	381,396	Apr. 17	1649	439 440	43	338
Love, Samuel Y., Meadville, Pa. Creaming-can	375,883	Jan. 3	208	57	42	44

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Lovejoy, Clinton C., Bethel, Me. Check-book.....	390,380	Oct. 2	258	69	45	55
Lovejoy, Henry L., Lowell, Mass. Cash and parcel carrying apparatus.....	382,889	May 15	1499	393	43	819
Lovejoy, Henry L., assignor to Lamson Cash Railway Company, Lowell, Mass. Switch for store-service apparatus.....	378,511	Feb. 28	1749	462	42	861
Lovejoy, Loyal. (See Van Doren and Lovejoy.)						
Lovejoy, Russel P., Greig, N. Y. Sprinkling-machine.....	383,740	May 29	2775	731	43	1082
Lovejoy, Russell P., Carthage, N. Y. Rope fire-escape.....	387,650	Aug. 14	691	178	44	712
Loveland, Edwin B. (See Smith, Frank B., assignor.)						
Loveless, Solomon J., near Mount Sterling, Ohio. Churn.....	386,538	July 31	2247	590	44	468
Lovell Arms Company, John P. (See Hood, Arthur F., assignor.)						
Lovell, James L., Austin, Nev. Ore-roasting furnace.....	381,629	Apr. 24	2001	525	43	424
Loveridge, Orange M. (See Hendy and Loveridge.)						
Lovett, Antoine D., and E. S. Goff, Geneva, N. Y. Hay-tedder. (Reissue).....	10,916	Mar. 27	2133	570	42	1401
Low, A. Augustus. (See Johnson and Low.)						
Low, A. Augustus, Brooklyn, N. Y. Pliers.....	390,131	Sept. 25	2023	539	44	1484
Low, A. Augustus, Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Type-line support.....	375,757	Jan. 3	51	15	42	14
Low, A. Augustus, Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Type-line support.....	375,758	Jan. 3	52	16	42	14
Low, A. Augustus, Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Type containing channel.....	381,802	Apr. 24	2240	587	43	471
Low, A. Augustus, Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Lead and rule holder.....	381,959	June 5	174	51	43	1154
Low, A. Augustus, Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Lead and rule holder.....	383,960	June 5	177	51, 52	43	1154
Low, A. Augustus, Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Lead and rule holder.....	383,961	June 5	189	52	43	1155
Low, A. Augustus, Brooklyn, assignor to Alden Type Machine Company, New York, N. Y. Lead and rule holder.....	383,962	June 5	183	53	43	1155
Low, Albert H., Denver, Colo. Extraction of zinc from ores.....	387,688	Aug. 14	749		44	722
Low, Fred R., Chelsea, Mass., and F. M. Clark, Tilton, N. H. Rotary steam-engine.....	386,479	July 24	1696	{ 447 448 }	41	358
Low, James E., Chicago, Ill. Artificial tooth-crown.....	376,603	Jan. 17	1241	326	42	253
Low, Joel B., San Francisco, Cal. Rock-crusher.....	393,440	Nov. 27	1842	486	45	976
Lowden, James J., Boston, Mass. Regulating live steam and exhaust from steam-engines.....	381,149	Apr. 17	1226	346	43	269
Lowden, James J., Boston, Mass. Separator.....	381,150	Apr. 17	1297	347	43	269
Lowden, James J., Boston, Mass. Pressure-reducing valve.....	391,807	Oct. 30	2284	620	45	479
Lowdermilk, Zimri H., Corvinton, N. C. Elevated railway.....	393,771	Dec. 4	54	15	45	1083
Lewdon, John C., Kansas City, Mo. Check-punch.....	386,785	July 24	2131	560	44	439
Lowe, Frank W., Boston, Mass. Picture-frame.....	377,567	Feb. 7	324	83	42	557
Lowe, George A. (See Knight, Isaac N., assignor.)						
Lowe, Harry, Montpelier, Vt. Attachment for checkrein loops or bars.....	385,463	July 3	194	51	44	39
Lowe, Harry, Montpelier, Vt. Side check-loop.....	386,480	July 24	1698	449	44	358
Lowe, James, et al. (See Grzybovski, Julian T., assignor.)						
Lowe, James A., North Branch, N. J. Making lead traps.....	376,203	Jan. 10	683	180	42	140
Lowe, William, Glendive, Mont. Ter. Rivet set and header.....	394,779	Dec. 18	1609	422	45	1403
Lowe, William, Greenbush, N. Y. Rail-joint union.....	394,867	Dec. 18	1759	456	45	1431
Lowell, Charles A., assignor to W. H. Newton, Cortland, N. Y. Wagon-brake.....	375,884	Jan. 3	209	57	42	45
Lowenfrant, Peter. (See Hall, George F., assignor.)						
Lowman, William, Marionville, Pa. Well-digging apparatus.....	388,889	Sept. 4	124	34	44	1096
Lowmiller, Alpheus, Jewett, Ohio. Musical instrument.....	376,443	Jan. 17	1017	{ 267 268 }	42	210
Lowrey, Eudorus J., Louisville, Ky. Fastening for horse-collars.....	392,518	Nov. 6	500	125	45	690
Lowry, Frank, assignor to Lechner Manufacturing Company, Columbus, Ohio. Mining-machine.....	383,061	May 15	1768	457	43	870
Lowry, George A. (See Cunning and Lowry.)						
Loy, Daniel O., Monticello, assignor to American Pavement Company, Chicago, Ill. Interlocking tile or paving-block.....	392,277	Nov. 6	146	{ 36 37 38 }	45	621
Loyall, George J., and J. M. Moyers, Richmond, Va. Cotton-press.....	393,513	Nov. 27	1966	{ 512 513 }	45	1001
Lozon, Charles, Detroit, Mich. Throttle-valve.....	378,140	Feb. 21	1202	313	42	748
Lubin, Leon T. J., Boston, Mass. Shoulder-brace.....	380,265	Mar. 27	2076	555	42	1390
Lubker, Henry, Columbus, Nebr. Guard-finger for mowers and reapers.....	383,473	May 29	2392	636	43	1004
Lue Adjustable Spring Hinge Company. (See Colvin and Wolfley, assignors.)						
Lucas, Andrew H., St. Louis, Mo. Velocipede.....	391,417	Oct. 23	1735	463	45	356
Lucas, Charles E., Staines, county of Middlesex, England. Manufacturing linoleum floor-cloth.....	386,926	July 31	2378	625	44	493
Lucas, Henry V., assignor to L. Lucas, St. Paul, Minn. Freight-car.....	378,602	Feb. 28	1880	497	42	887
Lucas, Lamira, (formerly Lamira Phelps,) assignor of one-half to E. W. Dodge, Lowell, Mich. Pastry-pie guard.....	385,683	July 3	522	136	44	102
Lucas, Louise. (See Lucas, Henry V., assignor.)						
Lucas, William M., Uhrichsville, Ohio. Flour-bolt.....	383,062	May 15	1769	{ 437 458 }	43	870
Luce, Charles J., Niantic, Conn. Coin-holder.....	377,568	Feb. 7	325	83	42	557
Luce, Charles J., Niantic, Conn. Strap-connection.....	394,780	Dec. 18	1610	422	45	1403
Luce, Charles J., and E. K. Beckwith, Niantic, Conn. Clapboard-holder.....	386,329	July 17	1465	388	44	299
Luce, Edwin W., Bolivar, N. Y. Throttle-valve.....	382,993	May 15	1640	429	43	845
Luce, Edwin W., Bolivar, N. Y. Automatic car-brake.....	382,994	May 15	1642	430	43	846
Luce, Edwin W., Bolivar, N. Y. Sash fastener.....	384,535	June 12	1040	271	43	1326
Luce, Edwin W., Bolivar, N. Y. Stove for heating railway-cars.....	386,330	July 17	1466	388	44	299
Luce, Letitia V., New Orleans, La. Sunshade for vehicles.....	390,790	Oct. 9	825	220	45	170
Luce, William B., Brookline, Mass. Reversible car-seat.....	377,205	Jan. 31	2145	{ 566 567 }	42	442
Lucia, Joseph C. (See Gordon and Lucia.)						
Luckett, Edgar M., Sacramento, Cal. Spark-arrester.....	393,994	Dec. 4	378	{ 102 103 }	45	1144
Lucock, John S. (See Williams and Lucock.)						
Ludlow, Washington L., Cleveland, Ohio. Electric railway.....	377,397	Feb. 7	45	13	42	504
Ludlum, Albert C., Brooklyn, N. Y. Adding and writing machine.....	384,373	June 12	808	210	43	1282
Ludvik, Charles, Brooklyn, N. Y. Rotary engine.....	393,567	Nov. 27	2041	535	45	1018
Ludwig, Bernhard, Vienna, Austria-Hungary. Machine for embossing wood or other material.....	380,904	Apr. 10	907	{ 243 244 }	43	186
Ludwig, Hermann C., New York, N. Y. Embroidering frame and stand.....	383,533	May 29	2490	657	43	1021

## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Ludwig, John C., San Francisco, Cal. Station-indicator .....	383,230	May 22	2018	{ 529 530 }	43	929
Ludwig, Mary, Bucyrus, Ohio. Chopping-knife .....	379,584	Mar. 20	1063	283	42	1181
Luetke, Oscar, Brooklyn, N. Y. Adjustable standard .....	390,381	Oct. 2	258	69	45	55
Lugo, Orazio, New York, N. Y. Electric motor and dynamo-machine .....	385,675	July 3	509	{ 131 132 133 }	44	99
Lugo, Orazio, New York, N. Y. Electric motor and dynamo electric machine .....	391,075	Dec. 4	495	{ 132 133 }	45	1166
Lugrin, Henry A., Brooklyn, N. Y. Stop-watch .....	379,075	Mar. 6	311	91	42	1024
Luhmann, Eduard, Niedermendig, Hesse, Germany, assignor of one-half to C. G. Rommen- holler, Rotterdam, Netherlands. Apparatus for removing gases from liquids .....	389,521	Sept. 11	1087	288	44	1286
Lutink & Sons Manufacturing Company, William. (See Soulen, Henry, assignor.)						
Lukens, Alexander B. (See Bowman, William H., assignor.)						
Lukens, Jawood, et al. (See Murphy, Albert L., assignor.)						
Lukins, Richard, Randolph, Nebr. Car-pushing machine .....	376,670	Jan. 17	1358	356	42	274
Lull, Albert G., Chicago, Ill. Garment-supporter .....	383,893	June 5	66	20	43	1133
Lum, Henry B., Red Bank, N. J. Trunk-strap coupling .....	387,086	July 31	2596	684	44	536
Lumb, William, trustee. (See Foote, Theodore M., assignor.)						
Lumsdon, Thomas, Marion, Va. Hillside-plow .....	392,566	Nov. 6	569	143	45	704
Lund, John C., Eau Claire, Wis. Fire-escape .....	381,478	Apr. 17	1775	474	43	362
Lund, William, Philadelphia, Pa., assignor to H. Wyman, Worcester, Mass. Wool-comb- ing machine. (Reissue) .....	10,930	May 15	1822	476	43	879
Lundberg, Gustave. (See Cardon and Lundberg.)						
Lundborg, Charles G., New York, N. Y. Construction of ships, &c .....	384,047	June 5	306	87, 88	43	1179
Lundington, Frank J., Waterbury, Conn. Machine for making button-backs .....	376,895	Jan. 24	1706	{ 446 447 448 }	42	348
Long, Charles J., Jamestown, N. Y. Ice-creeper .....	382,432	May 8	831	213	43	678
Lüngen, Adam, New York, N. Y. Electric bell .....	393,710	Nov. 27	2258	592	45	1060
Lüngen, Adam, New York, N. Y. Electric door-opener .....	393,711	Nov. 27	2259	{ 592 593 }	45	1060
Lunkenheimer, Edmund, Cincinnati, Ohio. Sight-feed lubricator .....	386,596	July 24	1864	492	41	388
Lunkenheimer, Frederick, Cincinnati, Ohio. Non-conducting hand-wheel for cocks, valves, and other steam-fittings .....	382,474	May 29	2393	636	43	1004
Lupien, Edmond A., Wayland, Mass. Breasting attachment for heeling-machines .....	382,615	May 8	1121	{ 288 289 }	43	733
Lupton, Thomas N., Winchester, Va. Hand-planter .....	389,709	Sept. 18	1394	365	44	1350
Lürssen, Heinrich. (See Wied and Lürssen.)						
Luscomb, Frederick W., and D. A. Corey, assignors to W. Lewis, New Bedford, Mass. Bomb-lance .....	385,416	July 3	125	34	44	26
Luscomb, Frederick W., and D. A. Corey, New Bedford, Mass., assignors to Applegate Boot and Shoe Lasting Company, Portland, Me. Lasting-machine .....	393,772	Dec. 4	55	16	45	1083
Luscomb, John F., Boston, Mass. Banjo .....	388,781	Aug. 28	2411	650	44	1055
Lusk, George H., Pomona, Fla. Floor-clamp .....	386,545	July 24	1800	475	44	376
Lutcher, Henry J., Orange, Tex. Thermostatic signal .....	389,584	Sept. 18	1192	312	44	1312
Lutes, William, et al. (See Jones, Edward C., assignor.)						
Luth, John F. (See Lehmann, Adolf, assignor.)						
Luther, Addison F. (See Luther, William A. and A. F.)						
Luther, Benjamin G., Worcester, Mass. Adjustable guide for buzz-planers and other wood- working machines .....	387,428	Aug. 7	334	86	44	63
Luther, James D. (See Sharp and Luther.)						
Luther, William A. and A. F., Olneyville, R. I. Composition for covering pulleys, rollers, &c .....	395,283	Dec. 25	2422	621	45	1563
Luthy, Charles T., et al. (See Richford, James H., assignor.)						
Luthy, Edward F., assignor of one-fourth to F. J. Rowley, Vernon, Mich. Feed-water heater .....	390,608	Oct. 2	567	151	45	114
Luthy, Ferd., et al. (See Richford, James H., assignor.)						
Lutts, Henry, Youngstown, N. Y. Cucumber-catcher .....	386,546	July 24	1801	475	44	376
Lutz, Anselm, Mannheim, Baden, Germany. Cartridge-loader .....	387,171	July 31	2732	717	44	558
Lutz, George W., assignor of one-half to J. S. Trimble, Wheeling, W. Va. Pipe-hanger .....	382,171	May 1	429	112	43	592
Lutz, George W., assignor of one-half to J. S. Trimble, Wheeling, W. Va. Apparatus for testing pipes .....	382,172	May 1	429	112	43	592
Lutz, George W., assignor of one-half to J. S. Trimble, Wheeling, W. Va. Gas-burner .....	392,211	Nov. 6	47	13	45	604
Lutz, George W., and J. M. Dillon, said Dillon assignor, by mesne assignments, to J. S. Trimble, Wheeling, W. Va. Apparatus for testing pipes .....	382,266	May 1	569	144	43	618
Lutz, William F., Jr., New York, N. Y. Car-axle .....	383,820	May 29	2919	770	43	1107
Lux, Frederick E., Walla Walla County, Wash. Ter. Self-cleaning weed-cutter .....	393,479	Nov. 27	1917	501	45	989
Lux, John H., P. Lux, deceased, (J. H. Lux administrator,) and S. Ede, Earlville, Iowa. Hay raker and loader .....	380,336	Apr. 3	43	15, 16	43	10
Lux, Philip. (See Lux and Ede.)						
Luyties, Henry R. (See Jacoby and Luyties.)						
Lyall, James, New York, N. Y. Twine .....	377,263	Jan. 31	2231	.....	42	457
Lybarger, John P., Rimer, Ohio, assignor of one third to A. N. Stewart. Extension-handle .....	393,377	Nov. 27	1756	465	45	960
Lyceett, Frederick W., Hartford, assignor to Stanley Rule and Level Company, New Brit- ain, Conn. Marking-gage .....	379,117	Mar. 6	375	106	42	1036
Lyde, John N., assignor of two thirds to E. W. Bowley and J. B. Gilmer, Waco, Tex. Oil- distributor for harbors, &c .....	393,995	Dec. 4	380	103	45	1144
Lyle, Robert W., Rochester, N. Y. Apparatus for cutting clay pipe into rings and sections .....	393,908	Nov. 20	1646	434	45	930
Lyman, Austin E., Warren, Ohio. Grubber .....	378,966	Mar. 6	146	42	42	995
Lyman, Charles, Clarinda, Iowa. Miter-box .....	380,632	Apr. 3	485	136	43	99
Lyman, Charles H., Ansonia, Conn., assignor to Ansonia Brass & Copper Company and W. A. Hull, New York, N. Y. Lamp .....	376,716	Jan. 17	1430	376	42	288
Lyman, Fordyce A., Cleveland, Ohio. Vapor-burner .....	381,843	Apr. 24	2319	603	43	486
Lyman, Fordyce A., Cleveland, Ohio. Vapor-burner .....	382,652	May 8	1177	301	43	745
Lyman, Frank H., and A. J. Johnson, assignors to themselves and H. N. Anable, Chicago, Ill. Hoodwink .....	377,835	Feb. 14	760	194	42	654
Lyman, Lewis J., Manhattan, Kans. Road-cart .....	394,705	Dec. 18	1477	385	45	1374
Lyman, Moses. (See Crandall, Charles M., assignor.)						
Lynch, Charles, assignor to J. Galvin, Detroit, Mich. Valve .....	392,961	Nov. 13	1149	299	45	824
Lynch, Edward P., Davenport, Iowa. Combined corn and cotton planter .....	376,534	Jan. 17	1144	{ 300 301 }	42	234
Lynch, Edward P., Davenport, Iowa. Wheel-plow .....	376,535	Jan. 17	1147	301	42	234
Lynch, Edward P., Davenport, Iowa. Wheel-plow .....	376,536	Jan. 17	1149	301	42	235
Lynch, Edward P., Davenport, Iowa. Cultivator .....	378,141	Feb. 21	1203	313	42	748



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drge.	Vol.	Page.
Lynch, Edward P., Davenport, Iowa. Walking-cultivator.....	384,048	June 5	309	88	43	1180
Lynch, Edward P., Davenport, Iowa. Horse hay-rake.....	387,172	July 31	2733	717	44	559
Lynch, Edward P., Davenport, Iowa. Wheel-cultivator.....	389,158	Sept. 4	544	137	44	1172
Lynch, James C., Harrison, N. J. Bag-hinge stay.....	390,609	Oct. 2	569	151	45	114
Lynch, James H. (See Brainard, Julius D., assignor.)						
Lynch, James H. (See Vollmar, Henry R., assignor.)						
Lynch, John H. (See Bower, George E., assignor.)						
Lynch, Matthew W., assignor to D. Curtis, Madison, Wis. Horse-beet.....	376,038	Jan. 3	437	116	42	88
Lynch, Michael, Chicago, Ill. Ash-sifter.....	383,312	May 22	2140	565	43	951
Lynde, John D., Haddonfield, N. J. Injector.....	386,408	July 17	1588	418	44	328
Lynett, Thomas, Cleveland, Ohio. Belt-fastener.....	394,076	Dec. 4	497	133	45	1167
Lynn, David. (See Alexander and Lynn.)						
Lynn, Elmore P. (See Lynn, Mirabeau N. and E. P.)						
Lynn Engine Company. (See Lynn, Mirabeau N., assignor.)						
Lynn Engine Company. (See Lynn, Mirabeau N. and E. P., assignors.)						
Lynn, Mirabeau N., Rising Sun, Ind., assignor to Lynn Engine Company, Dayton, Ohio. Steam-boiler.....	377,460	Feb. 7	168	39, 40	42	527
Lynn, Mirabeau N. and E. P., Rising Sun, Ind., assignors to Lynn Engine Company, Dayton, Ohio. Pitman-connection.....	377,461	Feb. 7	170	40	42	538
Lynn, Mirabeau N. and E. P., Rising Sun, Ind., assignors to Lynn Engine Company, Dayton, Ohio. Steam-engine.....	377,462	Feb. 7	172	40, 41	42	528
Lynn, Mirabeau N. and E. P., Rising Sun, Ind., assignors to Lynn Engine Company, Dayton, Ohio. Steam-engine.....	377,463	Feb. 7	174	41	42	529
Lynn, Thomas H., et al. (See Davidson, John, assignor.)						
Lyon, Adin, Spring Hill, Pa. Draft-regulating device for plows and cultivators.....	387,689	Aug. 14	750	192	44	722
Lyon, Algernon J., Cambridge, county of Cambridge, assignor of one-half to G. M. Sayle, London, England. Apparatus and till for recording and registering the amount of money received.....	389,159	Sept. 4	545	137 138	44	1173
Lyon, Benjamin W., San Francisco, Cal. Station-indicator.....	385,314	June 26	2220	569	43	1575
Lyon, Benjamin W., assignor to Pacific Indicator Company, San Francisco, Cal. Station-indicator.....	393,309	Nov. 20	1648	435	45	930
Lyon, Benjamin W., assignor to Pacific Indicator Company, San Francisco, Cal. Mechanism for operating station-indicators.....	394,077	Dec. 4	498	134	45	1167
Lyon, George W., et al. (See Moffat, George D., assignor.)						
Lyon & Healy. (See Durkee and Becker, assignors.)						
Lyon, Henry A., Sioux City, Iowa, assignor of one-half to J. W. Boyd, Chardon, Nebr. Cartridge implement.....	378,400	Feb. 21	1579	415	42	819
Lyon, James G., Brooklyn, N. Y. Broiling-oven for ranges.....	384,049	June 5	310	88	43	1180
Lyon, Louis A., Shorter's Depot, Ala. Automatic fire-extinguisher for car-heaters.....	381,501	Apr. 17	1816	481	43	371
Lyon, Robert B., assignor of one-half to T. S. Glaister, Sonoma, Cal. Gate.....	378,056	Feb. 14	1065	279	42	715
Lyon, William A., and S. L. Moore, assignors of one-half to J. S. Taylor and A. T. Clason, Danbury, Conn. Heating railway-cars.....	387,173	July 31	2735	718	44	559
Lyons, George W., Watertown, N. Y. Can-opener.....	394,123	Dec. 4	562	151	45	1179
Lyons, German, Lawrence, Mass. Support for wire-boards of spinning-frames.....	387,564	Aug. 7	562	147	44	681
Lyons, Hugh, Lansing, Mich. Combined hand conformer and stretcher.....	390,178	Sept. 25	2095	558	44	1499
Lyons, James. (See Mason and Carter, assignors.)						
Lysle, David W., Avondale, Pa. Plow.....	392,047	Oct. 30	2734	716	45	547
Lyth, Georg W., Stockholm, Sweden. Signal-lantern.....	380,293	Mar. 27	2111	565	42	1396
Lytle, Henry B. (See Milliken and Lytle.)						
Lytle, Henry B., Webb's Mills, N. Y. Liquid-forcing apparatus.....	382,236	May 1	522	134	43	609
Lyttle, La Fayette, Toledo, Ohio. Sword.....	384,584	June 12	1113	295	43	1339
Maas, Hugo F., Egg Harbor City, N. J. Copy-holder for compositors.....	384,374	June 12	811	210	43	1222
Maas, Louis, Neuilly-sur-Seine, France. Leaf-turner.....	377,569	Feb. 7	326	83, 84	42	558
Mabbey, Jesse T., Forest, Ohio. Railway-crossing.....	382,173	May 1	432	112 113	43	593
Mabbey, Jesse T., assignor of two-thirds to D. Asire and J. F. Nye, Forest, Ohio. Railway-crossing.....	394,868	Dec. 18	1761	456	45	1431
Mable, George W. (See Carter, James D., assignor.)						
Mabis, Charles F., Adair county, near Green Top, Mo. Culvert or drain-tile.....	393,840	Dec. 4	155	42	45	1101
Mabrey, Richard L., Doniphan, Mo. Wrench.....	385,464	July 3	195	51	44	39
MacDonald, Edward D., et al. (See Murray, William B., assignor.)						
MacDonald, John A., Lowell, Mass. Micrometer-gage.....	384,771	June 19	1390	363	43	1402
MacDonald, John W., Pittsburgh, Pa. Oiling-can.....	385,417	July 3	126	34	41	27
MacFarlane, John, assignor of four-fifths to N. Lochboehler, G. J. Bessler, J. C. Taylor, and J. M. Miller, Washington, D. C. Life-preserver rack and alarm.....	391,376	Oct. 16	1680	444 445	45	337
MacGregor, James, Des Moines, Iowa. Fire-escape.....	392,278	Nov. 6	148	38	45	622
MacKinnon, Duncan T. H. (See Little, Orton C., assignor.)						
MacKinnon, Duncan T. H., Menasha, Wis. Apparatus for the manufacture of excelsior.....	388,890	Sept. 4	125	34, 35	44	1096
MacKnight, John W., New York, N. Y. Artificial pavement.....	387,308	Aug. 7	167	44	44	603
MacKnight, John W., New York, N. Y. Laying artificial pavements.....	387,724	Aug. 14	805	208	44	733
MacKnight, John W., New York, N. Y. Artificial-stone pavement.....	389,311	Sept. 11	787	209	44	1229
MacKnight, John W., New York, N. Y. Artificial pavement.....	389,932	Sept. 25	1729	458	44	1425
MacKnight, John W., New York, N. Y. Laying artificial pavements.....	393,568	Nov. 27	2043	535	45	1018
MacKubin, Charles C., Baltimore, Md. Attachment for windows.....	380,126	Mar. 27	1893	504	42	1352
MacLaughlin Chemical Motor and Heating Company. (See MacLaughlin, William G., assignor.)						
MacLaughlin, William G., Omaha, assignor to MacLaughlin Chemical Motor and Heating Company, Seward, Nebr. Generating steam and heating air.....	387,087	July 31	2598	684	44	536
MacLaughlin, William G., Omaha, assignor to MacLaughlin Chemical Motor and Heating Company, Seward, Nebr. Apparatus for chemically heating water to produce steam.....	387,088	July 31	2601	684	44	537
MacLaughlin, William G., Omaha, assignor to MacLaughlin Chemical Motor and Heating Company, Seward, Nebr. Apparatus for automatically producing heat.....	387,089	July 31	2604	684	44	537
MacQuesten, Frederic W. (See Wheeler and MacQuesten.)						
Macbeth, James, Brooklyn, N. Y. Electrical fuse.....	394,192	Dec. 11	669	179	45	1208
Macbeth, Norman, Bolton, county of Lancaster, England. Apparatus for recording the variations of speed in motive-power engines.....	377,111	Jan. 31	2020	529	42	416
Macbriar, Charles C., assignor of one-half to H. Strowbridge, Cincinnati, Ohio. Kindling-package.....	390,610	Oct. 2	570	151	45	115
Macdonald, Andrew. (See Rigby, John S., assignor.)						
Macdonald, Franklin, New York, N. Y. Inking apparatus for lithographic presses.....	381,708	Apr. 24	2113	553	43	447
Macdonald, Frederick W. C., Chicago, Ill. Rein-holder.....	384,988	June 26	1709	443	43	1472
Mace, Harvey A., assignor of one-half to J. H. Pontler, Mount Zion, Ill. Flood-fence.....	377,037	Jan. 31	1902	500	42	393
Mace, Sebastian C., and G. R. Jackson, Clinton, Mo. Addressing-machine.....	390,382	Oct. 2	260	69, 70	45	55
Mace, Theodore. (See Ram, Gilbert S., assignor.)						
Mace, Theodore, New York, N. Y. Manufacture of incandescent electric lights.....	378,258	Feb. 21	1381	.....	42	780

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Macer, Jacob F., Allendale, Ill. Car-coupling .....	380,399	Apr. 3	136	40	43	29
Maegowan, Robert W., Brooklyn, N. Y. Envelope for newspapers and other merchandise.	376,249	Jan. 10	745	{ 197 198 }	{ 42 43 }	152
Mach, Frank. (See Hromas and Mach.)						
Macintosh, Robert M., Boston, Mass. Wax end machine .....	384,700	June 19	1298	339	43	1381
Mack, Adolf, Ludwigsburg, Württemberg, Germany. Board of composite material .....	386,102	July 10	1134	301	44	229
Mack, John, Grand Rapids, Mich. Sleigh .....	389,397	Sept. 11	909	238	41	1253
Mack, William B., Boston, Mass. Boiler .....	386,998	July 31	2477	651	44	514
Mackay, George H., assignor of one-half to O. Woodbury, Salem, N. H. Shaft-coupling ..	382,765	May 15	1331	350	43	784
Mackay, John A. (See Hunter and Mackay.)						
Mackay, Robert, Warren, Pa. Valve-gear .....	383,963	June 5	185	54	43	1156
Macke, J. Henry, Jr., Baltimore, Md. Folding music-stand .....	377,629	Feb. 7	418	106	42	575
Macke, J. Henry, Jr., Baltimore, Md. Folding music-stand. (Reissue) .....	10,947	July 24	2148	564	44	442
Mackel, Thomas, Pawtucket, R. I. Coupling for hose and faucets .....	381,562	Apr. 21	1901	501	43	405
Mackenzie, William. (See Beale, Alfred G., assignor.)						
Macker, George A., Marlborough, Mass. Boot or shoe .....	391,478	Oct. 23	1821	487	45	373
Mackey, David S., San Francisco, Cal. Cable-railway grip .....	377,527	Feb. 7	272	60	42	547
Mackey, William J., Truro, Ill. Wagon-brake .....	380,502	Apr. 3	292	85	43	59
Mackie, Robb, assignor to J. B. Tibbitts, Troy, N. Y. Armature for dynamo-electric machines ..	382,174	May 1	434	113	43	593
Mackintosh, John C., assignor of one-half to A. F. Tiltotson, Erie, Pa. Bottle-washer .....	383,964	June 5	186	54	43	1156
Maenee, Daniel, No. 2 Westminster Chambers, Victoria Street, county of Middlesex, England. Car-axle box .....	379,873	Mar. 20	1519	400	42	1270
Macomber, Clarence R., Worcester, Mass. Chemical fire-pail .....	392,353	Nov. 6	262	67	45	644
Macphail, James, and F. M. Needham, Rockford, Ill. Cultivator .....	376,747	Jan. 21	1176	389	42	306
Macphail, James, and F. M. Needham, Rockford, Ill. Hook for singletrees .....	376,806	Jan. 21	1584	415	42	326
Macraen Storage Battery Company. (See Paget, Leonard, assignor.)						
Mactear, James, Westminster, county of Middlesex, England. Incandescent gas-burner ..	378,699	Feb. 28	2023	534	42	914
Macy, William, Tippecanoe City, Ohio. Animal-poke .....	386,481	July 24	1699	449	44	358
Madden, Albert F., Newark, N. J., assignor to Electrical Accumulator Company, of New York. Apparatus for preparing secondary-battery plates .....	382,098	May 1	333	87, 88	43	574
Madden, Albert F., Newark, N. J., assignor to Electrical Accumulator Company, of New York. Machine for making battery-plates .....	391,542	Oct. 23	1905	511	45	391
Madden, Gustav, assignor to Adams & Westlake Company, Chicago, Ill. Signal-lantern ..	381,808	Oct. 30	2285	620	45	479
Madden, Gustave, assignor to Adams & Westlake Company, Chicago, Ill. Rotatable signal-lantern ..	387,980	Aug. 14	1188	322	44	808
Madden, Gustave, assignor to Adams & Westlake Company, Chicago, Ill. Rotatable signal-lantern ..	387,981	Aug. 14	1188	322	41	808
Madden, Samuel L., assignor of one-half to J. H. Sumser, Louisville, Ky. Horseshoe attachment ..	392,279	Nov. 6	150	38	45	622
Maddin, Mary. (See Maddin, Samuel D., assignor.)						
Maddin, Samuel D., assignor to M. Maddin, Miamisburg, Ohio. Harvester .....	382,049	May 1	261	67, 68	43	561
Maddin, Samuel D., assignor to M. Maddin, Miamisburg, Ohio. Harvester .....	395,284	Dec. 25	2423	621	45	1563
Madding, Jasper M., and B. F. Watson, Bridgeport, Ill. Fence-post .....	390,495	Oct. 2	422	109	45	86
Madison, Francis M. (See Shahan, Winfield S., assignor.)						
Mactzel, George H., Columbus, Ohio. Apparatus for opening doors .....	392,620	Nov. 13	660	165	45	727
Maeurer, Henry, assignor of one-half to W. Heinzmann, Brooklyn, N. Y. Window-sash ..	390,179	Sept. 25	2096	558	44	1499
Magee, Charles D., Chicago, Ill. Shafting-bearing .....	387,238	Aug. 7	57	13	44	582
Magee, Daniel W., New York, N. Y. Pipe-coupling .....	379,798	Mar. 20	1378	366	42	1244
Magee, Frank A., Chelsea, assignor to Magee Furnace Company, Boston, Mass. Stove or furnace ..	390,684	Oct. 9	675	{ 180 181 }	{ 45 46 }	142
Magee, Frank A., and S. Van Vorst, Chelsea, assignors to Magee Furnace Company, Boston, Mass. Heating-furnace ..	388,293	Aug. 21	1701	{ 453 454 }	{ 44 45 }	915
Magee Furnace Company. (See Magee, Frank A., assignor.)						
Magee Furnace Company. (See Magee and Van Vorst, assignors.)						
Maggard, L. J. (See Hahn, John J., assignor.)						
Maggi & Co., Julius. (See Maggi, Julius, assignor.)						
Maggi, Julius, assignor to J. Maggi & Co., Kempthall, Switzerland. Compressed-food package ..	395,243	Dec. 25	2369	606	45	1551
Maggs, John, Canandaigua, N. Y. Musical indicator .....	395,067	Dec. 25	2070	535	45	1500
Magneto Telegraph Company. (See Brown, Fred. H., assignor.)						
Magnette, Jules, Long Island City, N. Y. Chain-wrench .....	388,568	Aug. 28	2102	564	44	997
Magnus, Edward C., Chicago, Ill. Automatic advertising device .....	390,383	Oct. 2	263	70	45	56
Magoris, Anthony E., Binghamton, N. Y. Pants-supporter .....	387,090	July 31	2605	685	44	537
Magruder, George C. W., Tenallyton, assignor of two-thirds to American Patent Exchange, Washington, D. C. Carriage-wheel fender .....	384,969	June 26	1710	444	43	1472
Magnire, Charles R., Baltimore, Md. Folding basket or box .....	389,753	Sept. 18	1452	360	44	1392
Magnire, Thomas, Port Jervis, N. Y. Gas-cock .....	385,719	July 10	579	150	44	120
Mahaffa, John. (See Newbanks, Eli P., assignor.)						
Mahaffa, John. (See Newbanks and Mahaffa.)						
Mahaffy, Albert G. (See Johnson, and Mahaffy.)						
Mabedy, James, Sperry, Iowa. Regulating-damper for cooking-stoves, &c. ....	387,091	July 31	2606	685	44	537
Mahillon, Charles, Brussels, Belgium, assignor to W. H. Cundy, Boston, Mass. Clarinet ..	391,479	Oct. 23	1822	487	45	374
Mahl, George, Shippensburg, Pa. Wagon-seat .....	386,145	July 17	1200	319	44	250
Mahla, Jacob, Gabloux-on-Neisse, Bohemia, Austria-Hungary. Apparatus for grinding button-edges ..	389,312	Sept. 11	787	200	44	1229
Mahnken, Henry, assignor to J. Anderson, New York, N. Y. Printing-telegraph receiver ..	384,455	June 12	916	238	43	1303
Mahon, Charles, Washington, D. C. Device for removing obstructions or preventing accidents on street-railways ..	381,884	Apr. 24	2377	618	43	497
Mahon, James, Mansfield, Ohio. Stub fence-post .....	385,418	July 3	127	34	44	27
Mahon, James P. and J. S., New York, N. Y. Coffin .....	384,701	June 19	1300	339	43	1384
Mahon, John S. (See Mahon, James P. and J. S.)						
Mahoney, John J., Holden, Mass. Pulley-bushing .....	381,151	Apr. 17	1298	347	43	269
Mahony, James, New York, N. Y. Grate-bar .....	388,426	Aug. 28	1903	509	41	958
Mahony, Michael, Troy, N. Y. Combined hot-air and water heater .....	387,309	Aug. 7	168	44	44	603
Main, Alvin N., Pittsfield, Ill. Feed-trough .....	378,603	Feb. 28	1881	497	42	887
Main, Thomas, Jersey City, N. J. Furnace for steam-generators .....	378,967	Mar. 6	147	43	42	995
Mains, John F., Indianapolis, Ind. Corn and fodder compressor .....	379,967	Mar. 27	1657	442	42	1306
Mains, John F., assignor of one-half to W. N. Short, Indianapolis, Ind. Machine for agitating liquids ..	377,315	Jan. 31	2306	670	42	471
Mair, Albert. (See Dietrich, Engelbert, assignor.)						
Majert, Wilhelm, Grünau, near Berlin, and G. Richter, Falkenberg, near Grünau, Prussia, Germany. Making hydrogen .....	380,726	Apr. 10	635	175	43	136
Makensen, Thomas, Mound City, Kans. Evaporating-pan .....	384,772	June 19	1392	364	43	1403

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Malaier, Joshua H., and E. J. Smith, Sunny Side, Ga. Fertilizer-distributor .....	389,754	Sept. 18	1452	380	44	1363
Malandin, Léon P. C. (See Delamare-Deboutville and Malandin.) (Reissue.)						
Malcolm, William, <i>et al.</i> (See Dixon, John, assignor.)						
Maldeis, Henry B., Baltimore, Md. Manufacture of horse-collars .....	393,166	Nov. 20	1440	376	45	888
Maldeis, Henry B., assignor to I. M., and M. Bergman, Baltimore, Md. Horse-collar .....	386,409	July 17	1592	418	44	328
Maley, Henry, <i>et al.</i> (See Fee, William R., assignor.)						
Malin, Ulrik. (See Holley and Malin.)						
Malke, Frederick E. R., Chisney, Ind. Grain-adjuster for binders .....	384,702	June 19	1301	{ 339 340 }	43	1384
Mallary, Richard S. (See White, Alice, assignor.)						
Mallen, Rafael, Mexico, Mexico. Magazine fire-arm .....	386,889	July 31	2320	610	44	482
Malleneaff, Christopher, Malta, Ill. Horse-collar .....	393,251	Nov. 20	1565	410	45	914
Mallery, James G., Flint, Mich. Cultivator .....	386,146	July 17	1201	319	44	250
Mallet, Anatole, Paris, France, and F. B. Behr, assignors to Lartigue Railway Construction Company, (limited), London, England. Locomotive-tender .....	389,232	Sept. 11	662	{ 169 170 }	44	1206
Mallett, Edward J., Bay Side, N. Y. Printing-telegraph .....	384,320	June 12	715	{ 190 191 }	43	1267
Mallett, Edward J., Bay Side, N. Y. Polarized electro-magnet .....	384,321	June 12	720	191	43	1267
Mallett, Edward J., Bay Side, N. Y. Printing-telegraph .....	384,322	June 12	720	191	43	1267
Mallett, Edward J., New York, N. Y. Automatic pole-changer .....	384,323	June 12	722	191	43	1267
Mallett, Edward J., New York, N. Y. Automatic telegraphy .....	384,324	June 12	721	192	43	1268
Mallett, Edward J., New York, N. Y. Automatic telegraphy .....	384,325	June 12	728	193	43	1268
Mallett, Edward J., New York, N. Y. Automatic pole-changer .....	384,326	June 12	732	193	43	1268
Mallett, Francis W., New York, N. Y., assignor to Singer Manufacturing Company of New Jersey. Pad-stitching attachment for sewing-machines .....	390,685	Oct. 9	678	181	45	143
Mallett, Francis W., assignor to Zucker & Levett Chemical Company, New York, N. Y. Attachment for sewing-machines .....	393,252	Nov. 20	1565	{ 410 411 }	45	914
Mallinckrodt, John F., Denver, Colo. Tobacco-pipe .....	379,585	Mar. 20	1064	283	42	1182
Mallison, James C., Brenham, Tex. Corn and cotton planter combined .....	385,940	July 10	908	242	44	196
Mallonce, John C., Charleston, S. C. Preserving wood .....	386,999	July 31	2478	651	44	514
Mallory, Frank B., <i>et al.</i> (See Sanford, William R., assignor.)						
Malmberg, Hjalmar. (See Whiting, Preston H., assignor.)						
Malmberg, Hjalmar, Cortland, N. Y. Two-wheeled vehicle .....	382,175	May 1	436	{ 113 114 }	43	593
Malmström, Peter E., and P. E. Dummer, New York, N. Y. Apparatus for the manufacture of beverages .....	395,244	Dec. 25	2369	606	45	1552
Malone, Micajah C., Palmyra, Ill. Pruning implement .....	380,583	Apr. 3	419	119	43	85
Malone, Peter J., Altoona, Pa. Model for dental plates .....	382,539	May 8	1098	257	43	711
Maloney, John D. (See McCormick, Edward, assignor.)						
Maloy, James W., Marietta, Ga. Gang for sawing stone .....	387,239	Aug. 7	58	14	44	583
Malthy, Philo, Cleveland, Ohio, assignor of one-half to L. G. Hine, Washington, D. C. Reversing-valve .....	378,604	Feb. 28	1882	498	42	888
Malthy, Philo, Cleveland, Ohio, assignor of one-half to L. G. Hine, Washington, D. C. Piston .....	392,680	Nov. 13	741	128	45	742
Malthy, William J. (See French and Malthy.)						
Manahan, Thomas, New York, N. Y. Moth-proof bag .....	376,005	Jan. 3	358	103	42	78
Manahan, Thomas, New York, N. Y. Sheathing-paper .....	388,700	Aug. 28	2297	617	44	1033
Manahan, Thomas, New York, N. Y. Moth-proof bag .....	393,712	Nov. 27	2261	593	45	1060
Manby, Charles E. (See Norton and Gilbert, assignors.)						
Manby, Charles E., McKeesport, Pa. Reducing and smelting metallic ores .....	388,891	Sept. 4	128		44	1096
Mancini, Louis A., Montclair, N. J. Double-harness saddle and yoke .....	384,703	June 19	1302	340	43	1384
Mandell, Joseph, and J. P. Henderson, Logansport, Ind. Metallic fastener .....	389,660	Sept. 18	1320	345	44	1335
Mandell, Joseph, and J. P. Henderson, Logansport, Ind. Machine for inserting and clinching staples .....	389,661	Sept. 18	1321	{ 345 346 }	44	1335
Mandelbaum, Solomon, Chicago, Ill. Adjustable pattern-chart .....	381,563	Apr. 24	1902	501	43	405
Mandell, Albert A., Hyde Park, Mass. Suspenders .....	385,482	July 24	1700	449	44	358
Mandell, Albert A., Hyde Park, Mass. Suspenders .....	386,483	July 24	1701	449	44	358
Mandell, Michael, <i>et al.</i> (See Maurino, Henry Q., assignor.)						
Mandeville, Celia. (See Besessen, Charles J., assignor.)						
Mandt, Targe G., Stoughton, Wis. Running-gear for vehicles .....	380,213	Mar. 27	2008	537	42	1375
Mandt, Targe G., Stoughton, Wis. Bob-sled .....	390,088	Sept. 25	1962	522	44	1472
Mandt, Targe G., Stoughton, Wis. Wagon-tongue .....	390,871	Oct. 9	935	247	45	189
Mandt, Targe G., Stoughton, Wis. Running-gear for vehicles .....	390,872	Oct. 9	936	247	45	190
Mandt, Targe G., Stoughton, Wis. Tongue-support .....	390,873	Oct. 9	938	247	45	190
Mandt, Targe G., Stoughton, Wis. Reach for vehicles .....	390,874	Oct. 9	939	248	45	190
Mandt, Targe G., Stoughton, Wis. Wagon-standard .....	391,256	Oct. 16	1511	401	45	306
Mance, Charles P., and E. J. Palmer, Kalamazoo, Mich. Vehicle-spring .....	379,234	Mar. 13	540	150	42	1074
Mangan, Thomas, New Orleans, La. Rein-holder .....	380,337	Apr. 3	45	16	43	11
Mangold, James M., Thompson, W. Va. Machine for constructing fences .....	393,651	Nov. 27	2179	571	45	1041
Mangum, Daniel D. (See McMahon and Mangum.)						
Manhattan Clock Company. (See Parcelle, Albert L., assignor.)						
Manhattan Type Foundry. (See Bender, George, assignor.)						
Manhattan Watch Company. (See Knihu, Edmond, assignor.)						
Manifold, Samuel M. (See Stifler, William J., assignor.)						
Manker, Cary A., Louisville, Nebr. Holder for kegs, barrels, &c .....	378,968	Mar. 6	149	43	42	995
Manley, Thomas, Prince Albert, Saskatchewan, Canada. Circular gang sawing-machine .....	386,147	July 17	1202	{ 319 320 }	44	251
Manlove, George W., and E. A. Parker, Rushville, Ill., assignors to said E. A. Parker and H. Parker, Milwaukee, Wis., and E. L. Parker, Minneapolis, Minn. Wagon-box .....	381,479	Apr. 17	1778	474	43	362
Mann, Abram S., Rochester, N. Y. Lace-fastener .....	379,968	Mar. 27	1658	442	42	1306
Mann, Abram S., Rochester, N. Y. Corset-lacing .....	386,642	July 24	1925	509	44	401
Mann, Charles A., Buffalo, N. Y. Suspender-buckle .....	388,692	Sept. 4	129	35	41	1097
Mann, Edgar E., Lawrence, Mass. Tent .....	395,245	Dec. 25	2370	{ 606 607 }	45	1552
Mann, Edgar E., assignor, by mesne assignments, to W. J. Scott, Newburg, N. Y. Fog-signal .....	380,584	Apr. 3	420	{ 119 120 }	43	86
Mann, James F. (See Leary, Michael, assignor.)						
Mann, Louis T., Chicago, Ill. Railway danger-signal .....	376,444	Jan. 17	1023	268	42	211
Mann, Louis T., Chicago, Ill. Torpedo-signal placer .....	389,233	Sept. 11	664	{ 170 171 }	44	1206
Mann, Marquis L., Brooklyn, N. Y. Station-indicator .....	388,058	Aug. 21	1311	{ 353 354 }	44	840
Mann, Thomas W., Holyoke, Mass. Shading-hood for photographic cameras .....	387,092	July 31	2606	685	44	538
Mann, William B., Baltimore, Md. Dental engine .....	378,204	Feb. 21	1288	{ 340 341 }	42	765

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Mann, William D., assignor to Mann's Boudoir Car Company, New York, N. Y. Passenger-car.	377,628	Feb. 7	416	106	42	574
Mannesmann, Max. (See Mannesmann, Reinhard and M.)						
Mannesmann, Reinhard and M., Remscheid, Prussia, Germany. Mechanism for making seamless tubes.	379,585	Sept. 18	1193	312 313	41	1313
Mannie, George A., Petersburg, Va. Pyrotechnic signal.	385,562	July 3	318	90	41	70
Manning, Bradley, Swanton, Ohio, assignor of two-thirds to E. D. Manning, Chicago, Ill., and J. F. Strayer, Swanton, Ohio. Carpet-stretcher.	381,456	June 12	918	238	43	1304
Manning, Chesterfield, assignor of one-third to T. Cox, Sharonville, Ohio. Machine for stamping soap.	390,875	Oct. 9	910	218	45	190
Manning, Edward D., et al. (See Manning, Bradley, assignor.)						
Manning, Edwin C., Washington, D. C. Grain-separator.	385,563	July 3	319	91	44	70
Manning, Henry A., New York, N. Y. Culinary vessel.	378,700	Feb. 28	2021	534	42	915
Manning, John C., assignor of two-thirds to G. H. Chadayne and A. W. Olmstead, Buffalo, N. Y. Cutting tool.	395,285	Dec. 25	2424	621	45	1563
Manning, Thomas J., Grafton, Mass. Slate-pencil sharpener.	378,329	Feb. 21	1186	388	42	800
Manning, William, Boston, Mass., assignor to Highland Slate Manufacturing Company, Portland, Me. Treating gypsum.	395,159	Dec. 25	2231		45	1528
Manning, William T., assignor of one-half to I. N. Kalbaugh, Pittsburg, Pa. Railway-switch lock.	379,709	Mar. 20	1246	331 332	42	1218
Manning, William T., assignor of one-half to I. N. Kalbaugh, Pittsburg, Pa. Railway-switch lock.	383,965	June 5	187	55	43	1156
Mann's Boudoir Car Company. (See Mann, William D., assignor.)						
Manny, Eugene S., Montreal, Quebec, Canada. Hot-water boiler.	382,313	May 8	648	165	43	643
Manny, Eugene S., Montreal, Quebec, Canada. Hot-water boiler.	388,893	Sept. 4	130	35	44	1097
Manor, Lewis J., Delphi, Ind. Tongue-support.	380,503	Apr. 3	293	86	43	60
Mansbarger, Caleb, East Greenbush, N. Y. Mop attachment.	378,605	Feb. 28	1885	490	42	888
Mansfield, Albert K., Chicago, Ill. Hand-car.	376,604	Jan. 17	1214	326	42	254
Mansfield, Albert K., Chicago, Ill. Switch-operating mechanism.	386,020	July 10	1007	268	44	206
Mansfield, Albert K., New York, N. Y. Passenger car and station.	386,331	July 17	1467	389	44	300
Mansfield, Albert K., New York, N. Y. Railway-switch and switch mechanism.	391,168	Oct. 16	1392	371	45	282
Mansfield, Edward, Orono, Me. Making ferrules for cant-hooks.	377,038	Jan. 31	1903	500	42	393
Mansfield, Edward, Orono, Me. Making cant-hook ferrules.	383,135	May 22	1886	492	43	903
Mansfield, Henry H. (See Smith and Mansfield.)						
Mansfield, James A., Waverly, Md. Buggy-hoot.	387,420	Aug. 7	336	86	44	637
Mansfield, James W., Boston, Mass. Hollow mast.	377,490	Feb. 7	213	51	42	536
Mansfield, James W., Boston, Mass. Binding-strap.	389,933	Sept. 25	1730	458	44	1425
Mansfield, Joseph M., Manchester, Iowa. Snow-plow.	387,524	Aug. 7	482	127	44	667
Mansill, Elbridge S., et al. (See Taylor, Eugene H., assignor.)						
Manson, Asa D., Overton, Mass. Harrow.	384,557	June 12	919	239	43	1304
Manson, George. (See Gleason, Patrick, assignor.)						
Manson, William, Colton, Cal. Well-drilling machine.	379,710	Mar. 20	1248	332	42	1218
Manton, Frank S., Providence, R. I. Combined hilt and deck-pipe for vessels.	387,894	Aug. 11	1046	274	44	780
Manton, Joseph, assignor of one-half to C. C. Newton, Montreal, Quebec, Canada. Sight for fire-arms.	378,205	Feb. 21	1291	341	42	765
Manville, Charles B., Milwaukee, Wis. Boiler-covering.	378,372	Feb. 21	1544	404	42	812
Manville, Charles B., Milwaukee, Wis. Cold-surface covering.	393,441	Nov. 27	1844	486	45	977
Manville, Robert C. (See Kleint and Manville.)						
Manycutt, William C., Warrenton, Va. Alarm-lock.	380,043	Mar. 27	1771	474	42	1328
Maple, Alfred L. (See Vandegrift and Maple.)						
Marble, George L., assignor to Fitchburg Machine Works, Fitchburg, Mass. Clamping device for cross-beams of planers.	382,653	May 8	1179	304 305	43	745
Marble, William S., assignor of one-half to C. J. Spielberger, Philadelphia, Pa. Sleigh.	383,401	May 22	2270	603	43	974
March, Jacob M., Phoenixville, Pa. Device for lifting fallen grain.	390,496	Oct. 2	422	109 110	45	86
March, John W., et al. (See Phillips, Elwood C., assignor.)						
Marchbank, James A., assignor of one-half to I. H. Randall, Boston, Mass. Car-brake.	392,740	Nov. 13	831	211	45	761
Mareilly, Alexandre M., Ainc, Paris, France. Plate-printing machine.	379,235	Mar. 13	511	151 152	42	1074
Marconix, Moise, Springfield, Mass. Automatic fan attachment for rocking-chairs.	381,897	Apr. 24	2404	625	43	503
Marren, William H. H., Ash Grove, Mo. Combined ironing-board and iron-stand.	390,686	Oct. 9	680	182	45	143
Marcus, Morris H., and O. G. Moore, Knox, Pa. Fire-escape.	386,253	July 17	1366	360	44	281
Marcy, Alexander and H. B., Clinton, Ontario, Canada. Mouse and dust-proof attachment for organs.	393,773	Dec. 4	58	16	45	1083
Marcy, Herman B. (See Marcy, Alexander and H. B.)						
Marcy, James W., Cincinnati, Ohio. Seat-corner fastening.	378,606	Feb. 28	1886	499	42	889
Marello, René, Paris, France. Vending apparatus.	381,397	Apr. 17	1650	440	43	338
Margeson, Manly E., Rogersville, Mich. Portable fence.	383,475	May 29	2394	637	43	1004
Marjerson, James, Lawrence, Mass. Spinning-machine.	381,566	Apr. 24	1905	502	43	406
Marjerson, James, Lawrence, Mass. Spinning-machine.	381,567	Apr. 24	1908	503	43	406
Mark, Charlie E., assignor to Marks Automatic Car Coupler Company, Cleveland, Ohio. Manifold.	389,313	Sept. 11	789	200	44	1229
Marker, Stephen A., Newark, N. J. Harness-saddle.	383,741	May 29	2776	731	43	1082
Markgraf, Franz, New York, N. Y. Pressure-regulating valve.	376,101	Jan. 10	527	141	42	113
Markham, Dewitt C., assignor to Eureka Mower Company, Utica, N. Y. Harrow.	386,021	July 10	1009	268	44	206
Markham, Edward. (See Michel, Harry, assignor.)						
Markham, George D., et al. (See West, James, assignor.)						
Markle, Walter, Tanageroxie, Kans., assignor of one-half to F. M. Vanden, Kansas City, Mo. Heating-drum.	382,616	May 8	1122	289	43	734
Märklin, Adolf, assignor to Hoerder Bergwerks und Hüttenverein, Hoerde, Prussia, Germany. Finishing-rolls for the manufacture of iron railway-sleepers.	377,948	Feb. 14	921	239	42	688
Marks Automatic Car Coupler Company. (See Mark, Charlie E., assignor.)						
Marks, Celia, et al. (See McKean, Dayton, assignor.)						
Marks, Edward M. (See Dorner and Marks.)						
Marks, Jacob O., Urbana, Ill. Grain-meter.	379,799	Mar. 20	1379	366	42	1245
Marks, Lewis C. (See Allen, William R., assignor.)						
Marks, Louis, assignor of two-thirds to G. Schlesinger and G. Burkhardt, San Francisco, Cal. Carburetor.	382,819	May 15	1405	368 369	43	799
Marks, Nicholas M., Gainesville, Tex. Combined railway-rail chair and tie.	376,250	Jan. 10	746	198	42	153
Marks, William F. (See Gehret, Henry A., assignor.)						
Marland, Alfred J., Pittsburg, Pa. Nut-machine.	385,128	June 26	1936	494 495	43	1518
Marlin Fire Arms Company. (See Rice, David H., assignor.)						
Marlin, John M., New Haven, Conn. Velocipede.	388,427	Aug. 28	1904	509	44	958

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Marlin, Mahlon H., New Haven, Conn. Velocipede.....	384,990	June 26	1711	444	43	1472
Marmion, Francis J., New York, N. Y. Tin can.....	390,791	Oct. 9	826	220	45	170
Marmion, Daniel W., assignor to Nordyke & Marmion Company, Indianapolis, Ind. Shifting gate for conveyers.....	382,890	May 15	1501	393	43	819
Marquand, Augustus J., Cardiff, county of Glamorgan, England. Electrical apparatus for preventing corrosion of steam-boilers.....	393,072	Nov. 20	1312	342	45	863
Marquardt, Jacob, New York, N. Y. Weighing apparatus.....	394,869	Dec. 18	1762	457	45	1431
Marquis, Daniel M., Kokomo, Ind. Sliding joint for gas-mains.....	381,803	Apr. 24	2242	587	43	471
Marr, Augustus D., Boston, Mass. Chair.....	383,231	May 22	2019	530	43	930
Marr, William, assignor of one-half to C. K. Dutton, New York, N. Y. Evaporating apparatus.....	389,160	Sept. 4	547	138	44	1173
Marr, William C., Onawa, Iowa. Pliers.....	382,712	May 15	1262	330	43	770
Marr, William C., Onawa, Iowa. Machine for twisting metal and forming spiral conveyers.....	393,378	Nov. 27	1756	{ 465 466 }	{ 45 45 }	{ 960 960 }
Marris, George W. (See Wheatley, George W., assignor.)						
Marris, James M., and H. W. Peery, Albany, Mo. Gate.....	391,418	Oct. 23	1736	463	45	356
Marsden, Jesse B., Baltimore, Md. Step-ladder and table.....	390,687	Oct. 9	681	182	45	144
Marsden, Mark W., Connellsville, assignor to J. W. Campbell and A. Matchett, Pittsburg, Pa. Adhesive paste.....	376,445	Jan. 17	1025		42	212
Marsh, Edward. (See McDonald, John, assignor.)						
Marsh, Edward A., Newton, Mass. Machine for automatically polishing balance-screws.....	395,160	Dec. 25	2231	{ 573 574 }	{ 45 45 }	{ 1528 1528 }
Marsh, Edward W., Hartford, Conn. Safety-plate for steam-pipes.....	375,885	Jan. 3	211	58	42	45
Marsh, Elon A., Battle Creek, Mich. Valve for steam-pumps.....	394,656	Dec. 18	1399	365	45	1359
Marsh, Henry A., et al., executors. (See Knowles, Lucius J.)						
Marsh, James P., Chicago, Ill. Air-valve for radiators.....	390,244	Oct. 2	70	19	45	17
Marsh, Robert A. (See Bignall and Marsh.)						
Marsh, William, Brooklyn, N. Y. Truss.....	391,480	Oct. 23	1823	{ 487 488 }	{ 45 45 }	{ 374 374 }
Marsh, William E. H. (See Walter and Marsh.)						
Marsh, William H., New York, N. Y. Hydraulic elevator.....	383,232	May 22	2021	530	43	930
Marshall, Calvin, St. Joseph, Mo. Plumb-level.....	377,434	Feb. 7	135	28	42	520
Marshall, Charles A., Johnstown, Pa. Iron or steel ingot.....	377,316	Jan. 31	2307	670	42	472
Marshall, Charles A., Johnstown, Pa. Tube-blank and making the same.....	377,317	Jan. 31	2309	670	42	472
Marshall, Charles A., Johnstown, Pa. Seamless tube and making the same.....	377,318	Jan. 31	2311	671	42	472
Marshall, Charles A., Johnstown, Pa. Opening and shaping tube-blanks.....	389,586	Sept. 18	1196	313	44	1313
Marshall, Charles A., Lowell, assignor of one-half to W. H. Bartlett, New Bedford, Mass. Seal-lock.....	375,886	Jan. 3	211	58	42	45
Marshall, Charles G., Langdon, assignor, by mesne assignments, to himself and J. W. Bascome, Alstead, N. H. Water or liquid heater.....	378,512	Feb. 28	1750	462	42	862
Marshall, Charles P., Memphis, Tenn. Steam-boiler.....	383,364	May 22	2212	{ 586 587 }	{ 43 43 }	{ 964 964 }
Marshall, Eugene E., assignor of two-thirds to A. Arrington and J. K. Spencer, near Louisburg, N. C. Feeding device for planters and distributors.....	395,266	Dec. 25	2425	622	45	1564
Marshall, Eugene E., assignor of two-thirds to J. K. Spencer and A. Arrington, Louisburg, N. C. Planter and fertilizer-distributor.....	395,287	Dec. 25	2426	{ 622 623 }	{ 45 45 }	{ 1564 1564 }
Marshall, George, Fremont, Nebr. Steam-engine.....	390,876	Oct. 9	942	{ 248 249 }	{ 45 45 }	{ 191 191 }
Marshall, George F., Brooklyn, N. Y. Valve-connection for hopper water-closets.....	382,820	May 15	1406	369	43	799
Marshall, George V. (See Ballard, Samuel R., assignor.)						
Marshall, Godfrey, Indiana, Pa. Horse-collar fastener.....	382,540	May 8	1009	257	43	711
Marshall, John S., Inlay City, Mich. Governor for steam-engines.....	378,170	Feb. 21	1241	327	42	755
Marshall, John S., Inlay City, Mich. Guide for circular saws.....	378,513	Feb. 28	1751	463	42	862
Marshall, John S., Inlay City, Mich. Valve for steam-engines.....	381,152	Apr. 17	1299	347	43	270
Marshall, Joseph S., assignor of one-half to C. W. Leedom, Clear Water, Kans. Windmill.....	385,676	July 3	511	{ 132 133 }	{ 44 44 }	{ 99 99 }
Marshall, Lem. E. (See Baldwin, Ferdinand, assignor.)						
Marshall, Moses J. S., assignor of three-fourths to L. B. Hiscock, W. F. Miller, and A. B. Eastman, Boston, Mass. Trunk or chest.....	377,039	Jan. 31	1904	501	42	393
Marshall, Robert, Pittsburg, Pa. Lubricator.....	381,804	Apr. 24	2243	587	43	472
Marshall, Samuel S., Slaton, Pa. Slate grinding or dressing machine.....	376,537	Jan. 17	1150	302	42	235
Marshall, William M., Philadelphia, Pa. Reflector and reflecting-chandelier.....	387,430	Aug. 7	336	87	44	638
Marshutz, Leon C. (See Cantrell, Thomas G., assignor.)						
Marsters, Joseph D., Boston, Mass. Combination-tool.....	382,821	May 15	1407	369	43	799
Marston, F. Du Pont, Philadelphia, Pa. Electrical telephone.....	380,905	Apr. 10	908	244	43	186
Martel, Adelard F., Montreal, assignor of three-fourths to J. B. A. Mongenais, Rigaud, T. Brosseau and M. M. P. Craig, Montreal, Quebec, Canada. Switch-signal.....	385,363	July 3	39	12	44	10
Martel, Adelard F., Montreal, assignor of three-fourths to J. B. A. Mongenais, Rigaud, T. Brosseau and M. M. P. Craig, Montreal, Quebec, Canada. Railway-signal.....	385,677	July 3	512	133	44	100
Martel, Adelard F., Montreal, Canada, assignor, by mesne assignments, to Hand Power Test Machine Company, of New Jersey. Coin-controlled hand-power tester.....	386,206	July 17	1273	340	44	265
Martel, Adelard F., Montreal, Quebec, Canada, assignor, by mesne assignments, to Hand Power Test Machine Company, of New Jersey. Coin-controlled hand-power tester.....	394,193	Dec. 11	671	180	45	1208
Martel, William A., South Orange, N. J. Stove-lid.....	394,706	Dec. 18	1477	3-5	45	1374
Martens, Henry A., St. Joseph, Dak. Ter. Bag-fastener.....	381,265	Apr. 17	1462	393	43	300
Martens, William G., Rochester, N. Y. Machine for forming rings, &c.....	392,351	Nov. 6	263	68	45	644
Martihalder, John, Jersey City, N. J. Flooring for buildings.....	394,588	Dec. 18	1289	338	45	1339
Martin, Alfred, assignor of one-half to C. A. Haertel, Waukesha, Wis. Chimney cap and ventilator.....	389,368	Sept. 11	910	238	44	1253
Martin, Alfred S., assignor of one-half to W. H. Sawyer, Fort Valley, Ga. Grinding-mill.....	390,497	Oct. 2	427	{ 110 111 }	{ 45 45 }	{ 87 87 }
Martin, Andrew J., assignor to H. M. Kirkpatrick, Macedon, N. Y. Grain-drill.....	376,538	Jan. 17	1151	302	42	235
Martin, Andrew J., Muncy, Pa., and H. J. Breese, Macedon, N. Y. Stock-loading device.....	376,896	Jan. 24	1710	448	42	349
Martin, Charles H., Bridgeport, Conn. Heel for boots or shoes.....	384,634	June 19	1190	314	43	1363
Martin, Charles M., Gloucester, Mass., assignor to Le Page's Liquid Glue and Cement Company, Gloucester, Mass., and Portland, Me. Can for liquid glue.....	387,982	Aug. 14	1189	323	44	808
Martin, Charles W., Wallaceburg, Ontario, Canada. Swing-bridge.....	380,906	Apr. 10	909	244	43	186
Martin, Edward. (See Melzer, Christian F. T., assignor.)						
Martin, Edward G., Concordia, Kans. Vapor-burner.....	381,153	Apr. 17	1301	{ 347 348 }	{ 43 43 }	{ 270 270 }
Martin, Edwin K. (See Abraham and Martin.)						
Martin, Edwin J. (See Huston and Martin.)						
Martin, Frederick J., London, England. Glove-fastening.....	394,589	Dec. 18	1290	338	45	1339
Martin, Henry, Cortland, Ill. Flour-sieve.....	382,541	May 8	1011	258	43	711



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Martin, Homer. (See McHenry and Martin.)						
Martin, Hudson, and J. R. Palmer, Roanoke, Mo. Combined whip and robe lock and line-holder	380,633	Apr. 3	486	136	43	99
Martin, Isaac J., Honey Grove, Tex. Plow-point	383,402	May 22	2272	604	43	974
Martin, J. Albert, assignor of two-thirds to H. C. Sharp and J. N. Teeple, Charlestown, Ind. Game-board	379,174	Mar. 6	440	124	42	1050
Martin, Jacob L., Leo, Ind. Washing-machine	391,543	Oct. 23	1907	512	45	392
Martin, James W., and C. H. Reinholdt, Manning, Iowa. Steam feed-cooker	387,525	Aug. 7	484	127	44	667
Martin, John, et al. (See Anderson, Lee, assignor.)						
Martin, John, et al. (See Lippitt, Elihu, assignor.)						
Martin, John D., assignor of one-half to J. E. Ruby and S. F. Brown, Madisonville, Ky. Oiling attachment for handsaws	389,399	Sept. 11	911	238	44	1253
Martin, John P., assignor of one-half to H. Keeler and T. P. Bailey, Chicago, Ill. Compound for coating iron, wood, canvas, &c.	377,081	Jan. 31	1971		42	407
Martin, John H., Oroville, assignor of one-half to J. Hendy, San Francisco, Cal. Hydraulic pump	381,050	June 5	311	89	43	1180
Martin, John L., Canton, Kans. Snap-hook	380,687	Apr. 10	582	159	43	126
Martin, John W. (See Henderson and Martin.)						
Martin, John W., assignor of one-third to A. S. Mason, St. Louis, Mo. Wagon-brake	381,502	Apr. 17	1818	481	43	371
Martin, Joseph B. (See Elliott, John A., assignor.)						
Martin, Lyman C., and J. W. Hart, Iola, Kans. Heating-stove	393,018	Nov. 20	1242	322	45	849
Martin, Mathew, Catonsville, Md. Railway automatic switch	390,877	Oct. 9	945	219	45	191
Martin, Morris, Malden, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Municipal signaling	380,655	Apr. 3	520	144	43	105
Martin, Morris, Malden, assignor of one-half to C. F. Adams, Boston, Mass. Annunciator and signaling apparatus	381,709	Apr. 24	2115	553	43	447
Martin, Patrick A. (See Jackson, John, assignor.)						
Martin, Patrick A. (See Jackson and Martin.)						
Martin, Peter R., Dubuque, Iowa. Fire-engine lighter	385,419	July 3	128	34, 35	44	27
Martin, Reazin D., Princeton, Ky. Bedstead-slat lock	386,022	July 10	1010	269	44	206
Martin, Robert W. (See Snee, Parke E., assignor.)						
Martin, Samuel M., Sidney, Ohio. Horse-shoeing-rack	388,569	Aug. 28	2103	564	44	997
Martin, Taylor, Sturm's Mills, W. Va. Table	393,841	Dec. 4	156	42	45	1101
Martin, Thomas H., London, England. Sewing-machine	379,175	Mar. 6	441	124	42	1050
Martin, W. W., et al. (See Davidson, Otis E., assignor.)						
Martin, Wellington J., Mount Pleasant, assignor to Iowa Road Grader and Ditcher Manufacturing Company, Burlington, Iowa. Road scraper and grader	377,082	Jan. 31	1973	518	42	407
Martin, William, Duukirk, N. Y. Pipe or tube coupling	386,547	July 24	1803	475	44	376
Martin, William S., et al. (See Appleby, Joseph, assignor.)						
Martindale, Constantine S., assignor of one-half to T. Clapper, Hartford City, Ind. Fence	393,167	Nov. 20	1441	376	45	889
Martine, Charles F., Boston, Mass. Boot or shoe. (Reissue)	10,919	Apr. 3	555	151	43	112
Martinson, Ole, Meridian, Wis. Measuring-faucet	377,165	Jan. 31	2086	519	42	431
Marty, John M., Cleveland, Ohio. Ejector	380,907	Apr. 10	910	244	43	877
Martyn, William P., Harrisburg, Oreg. Baling-press	393,116	Nov. 20	1371	358	45	185
Martz, Oliver M., and J. Esselburn, West Salem, Ohio. Thill-coupling	382,177	May 1	439	114	43	594
Martzloff, John, Easton, Pa. Spool-holding spindle for winding silk, &c.	377,206	Jan. 31	2146	567	42	443
Marvil, Joshua H., Laurel, Del. Fruit-basket	382,176	May 1	437	114	43	594
Marvil, Joshua H., Laurel, Del. Fruit-basket	387,895	Aug. 14	1047	275	41	780
Marvin, John, Northport, N. Y. Rotary engine	388,210	Aug. 21	1573	419	44	889
Marvin, Robert S., et al. (See Earnest, Jacob T., assignor.)						
Maryland Electric Motor Manufacturing Company. (See Mason, Charles T., assignor.)						
Maryland Electric Motor Manufacturing Company of Baltimore City. (See Mason, Charles T., Sr., assignor.)						
Masay, Robert, Nashville, Tenn. Rowing apparatus	385,465	July 3	196	51	44	39
Mason, Asa S. (See Martin, John W., assignor.)						
Mason, Charles T., Jr., Sumter, S. C. Cotton-gin	381,564	Apr. 24	1903	502	43	405
Mason, Charles T., Jr., Sumter, S. C. Cotton-gin	381,565	Apr. 24	1904	502	43	405
Mason, Charles T., Sumter, S. C., assignor to Maryland Electric Motor Manufacturing Company, Baltimore, Md. Electric railway	378,259	Feb. 21	1383	362	42	781
Mason, Charles T., Sr., Sumter, S. C., assignor to Maryland Electric Motor Manufacturing Company of Baltimore City. Electric motor	377,319	Jan. 31	2313	671	42	472
Mason Cotton Harvester Company. (See Richards, Francis H., assignor.)						
Mason, Frank H., assignor of one-half to G. V. Kennedy, Saucelito, Cal. Wagon spring brace	375,896	Jan. 3	135	39	42	31
Mason, Frank S., Cambridge, Mass. Feed-regulator for oil-stoves	376,446	Jan. 17	1026	269	42	212
Mason, Frank S., Cambridge, Mass. Indicator for oil-tanks	378,330	Feb. 21	1486	388	42	800
Mason, George W., Sharon, Pa. Hydraulic motor	378,701	Feb. 28	2025	535	42	915
Mason & Hamlin Organ and Piano Company. (See Richardson, John P., assignor.)						
Mason, Horatio H. (See Emerson, Richard, assignor.)						
Mason, James A., E. F. Mulkey, and G. W. Houston, Savoy, Tex. Power-fan	376,327	Jan. 10	851	224	42	172
Mason Machine Works. (See Meats, John T., assignor.)						
Mason, Matthew, Brooklyn, N. Y., and G. T. Carter, Elizabeth, N. J.; said Carter assignor to J. Lyons, Brooklyn, N. Y. Hose-winding machine	391,169	Oct. 16	1394	371	45	283
Mason, Orlando P., Bellaire, Ohio. Ingot-manipulator	388,570	Aug. 28	2104	561	44	998
Mason, Peter L., West Salem, assignor of one-half to H. B. West, Cleveland, Ohio. Mechanical telephone	382,713	May 15	1263	321	43	770
Mason Regulator Company. (See Mason, William B., assignor.)						
Mason, Robert, Exeter, N. H. Checkrein-hook	381,859	June 19	1528	398	43	1428
Mason, Rodney, and J. M. Smith, Detroit, Mich. Lubricator	381,051	June 5	312	89	43	1180
Mason, Thomas B., Trenton, N. J. Removable calk for horseshoes	387,000	July 31	2481	601	44	514
Mason, William, New Haven, Conn., assignor to Winchester Repeating Arms Company. Cartridge-reloading implement	382,482	May 8	917	233	43	693
Mason, William, assignor to Winchester Repeating Arms Company, New Haven, Conn. Machine for heading cartridge-shells	386,254	July 17	1367	360	41	281
Mason, William B., assignor to Mason Regulator Company, Boston, Mass. Fluid-pressure regulator	379,586	Mar. 20	1065	284	42	1182
Mason, William B., assignor to Mason Regulator Company, Boston, Mass. Fluid-pressure regulator	383,426	May 22	2311	613	43	981
Mason, William B., assignor to Mason Regulator Company, Boston, Mass. Governor-valve	383,427	May 22	2313	613	43	981
Mason, William D., Providence, R. I. Drop-light attachment	384,052	June 5	315	89	43	1181
Masset, John, North Tarrytown, N. Y. Expanding mandrel	389,440	Sept. 11	1033	275	44	1276
Masset, John, North Tarrytown, N. Y. Rock-drill	389,587	Sept. 18	1198	313 314	44	1313
Massey, Albert P., assignor to Eames Vacuum Brake Company, Watertown, N. Y. Electro-magnetic car-brake	382,766	May 15	1332	350	43	784

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Massey, Albert P., assignor to Eames Vacuum Brake Company, Watertown, N. Y. Locomotive-brake	386,148	July 17	1203	320	44	251
Massey, Albert P., assignor to Eames Vacuum Brake Company, Watertown, N. Y. Locomotive-coupler	387,725	Aug. 14	806	208	44	733
Massey, Albert P., assignor to Eames Vacuum Brake Company, Watertown, N. Y. Locomotive-brake	391,755	Oct. 23	2190	591	45	450
Massey, Gideon B., Mamaroneck, N. Y. Ticket-printing apparatus	391,544	Oct. 23	1909	512 513 514	45	392
Massey, Thomas C. (See Shorrock, James L., assignor.)						
Massillon Stone and Fire Brick Company. (See Young, Robert O., assignor.)						
Masson-Chevallier, Gabriel C., Montreuil-Sous-Bois, near Paris, France. Candle-holder	388,894	Sept. 4	131	35	44	1097
Masson, Eugène, Philadelphia, Pa. Recling-frame	378,933	Mar. 6	104	30	42	987
Masson, John, Haslach, Baden, Germany. Bottle-rinsing machine	390,688	Oct. 9	682	182	45	144
Masson, Joseph. (See DuLiére, Henry, assignor.)						
Maston, James, Boswell, Ohio. Boom-grip	375,759	Jan. 3	53	16	42	14
Masterman, Benjamin F. (See Benway, Eli W., assignor.)						
Masters, David H., Azotea, N. Mex. Ter. Ore-concentrator	391,257	Oct. 16	1512	401	45	306
Masters, Mark J., assignor of three-fourths to B. D., C. D., and A. D. Vassiliades, New York, N. Y. Adhesive powder for gilding, &c.	388,984	Sept. 4	261		44	1123
Matchett, Alexander, et al. (See Marsden, Mark W., assignor.)						
Matchett, James J. (See Gates, Henry, assignor.)						
Matchett, William J., et al. (See Spicer, Andrew J., assignor.)						
Matchette, James S., Sherman, Tex., assignor to E. H. Winchester, Dorchester, Wis. Check-book	387,983	Aug. 14	1190	323	44	808
Mater, Henry, Lagro, Ind. Fence	382,178	May 1	440	115	43	594
Mather Electric Company. (See Anthony, William A., assignor.)						
Mather, Richard H., Windsor, Conn. Armature for dynamo-electric machines	377,683	Feb. 7	504	129	42	590
Mather, Richard H., Windsor, Conn. Electro-mechanical movement	377,684	Feb. 7	505	129 130	42	590
Mather, Richard H., Windsor, Conn. Throttle and governor valve	379,280	Mar. 13	602	165 166	42	1086
Mather, Richard H., Windsor, Conn. Dynamo-electric machine	381,398	Apr. 17	1652	441	43	339
Mather, Richard H., Windsor, Conn. Steam dynamo-electric machine	381,568	Apr. 24	1911	503 504	43	406
Mather, Richard H., Windsor, Conn. Switch for electric motors	382,714	May 15	1264	331	43	770
Mather, Richard H., Windsor, Conn. Switching device for electric motors	382,715	May 15	1266	331 332	43	771
Mather, Richard H., Windsor, Conn. Governor for electric motors	383,651	May 29	2645	700	43	1055
Mather, Richard H., Windsor, Conn. Steam-engine	386,548	July 24	1804	476 477	44	376
Mather, Richard H., Windsor, Conn. Electro-mechanical movement	387,310	Aug. 7	169	45	44	603
Mather, Richard H., Windsor, Conn. Steam-engine	388,059	Aug. 21	1312	354 355	44	840
Mather, Richard H., Windsor, Conn. Electric-arc lamp	390,245	Oct. 2	71	20, 21	45	17
Mather, William, New York, N. Y. Expandible and collapsible screw-tap	387,431	Aug. 7	337	87	44	638
Mather, William, and E. Hopkinson, Manchester, county of Lancaster, and J. Hopkinson, Westminster, England. Dynamo-electric machine	390,180	Sept. 25	2097	559	44	1499
Mathes, William G. (See Gibbs, James E., assignor.)						
Matheson, Robert J. (See Rodger and Matheson.)						
Mathews, Alexander F., et al. (See Burner, Allen C., assignor.)						
Mathews, James M., assignor of one-half to R. P. Mathews, Minneapolis, Minn. Hinge-mortiser	379,076	Mar. 6	313	91	42	1024
Mathews, Lawrence, Summitville, Ohio. Elevator for grain-hinders	384,458	June 12	920	239	43	1304
Mathews, Milton, Warren, and H. Hill, Chester Cross Roads, Ohio. Evaporating-pan	382,314	May 8	649	166 167	43	643
Mathews, Rufus P. (See Mathews, James M., assignor.)						
Mathews, William, Alameda, Cal. Sash-holder	390,878	Oct. 9	946	250	45	192
Mathewson, Arthur W., assignor of one-half to W. H. Goldsmith, Fall River, Mass. Thread-tension device	387,984	Aug. 14	1191	323	44	809
Mathias, Henry R., et al. (See Newsom and Oxley, assignors.)						
Mathias, Henry R., Athens, Ohio. Slideway	376,671	Jan. 17	1358	357	42	274
Mathisen, William M. (See Jewell, Omar H., assignor.)						
Mathison, Joseph, Lynn, Mass., assignor to Standard Button Fastening Company. Presser-foot-operating mechanism for sewing-machines	380,656	Apr. 3	523	144	43	105
Matlack, Alexander C., Independence, Cal. Hame	381,399	Apr. 17	1653	441	43	339
Matlock, David B., San José, Cal. Fence	385,466	July 3	198	52	44	40
Matlock, David B., San José, Cal. Fence	385,467	July 3	199	52	44	40
Matson, German J., New Buffalo, Mich., assignor of one-half to M. D. Powers, Panama, N. Y. Roof-paint	387,240	Aug. 7	60		44	583
Matter, William H. (See Loewenbach and Matter.)						
Mattern, Jacob A., Colfax, Iowa. Loom	379,481	Mar. 13	900	243	42	1143
Mattes, William F., trustee. (See Mattes and Lewis, assignors.)						
Mattes, William F., and J. F. Lewis, assignors to W. F. Mattes, trustee, Scranton, Pa. Lubricator	389,755	Sept. 18	1453	381	44	1363
Mattes, William F., and J. F. Lewis, assignors to W. F. Mattes, trustee, Scranton, Pa. Oil-cup	392,161	Oct. 30	2821	765	45	583
Matteson, Don C., Stockton, Cal. Combined harvester and thrasher	383,233	May 22	2022	530 531	43	930
Mattheissen, Conrad H., and J. Krieger, Chicago, Ill. Refining dextrine	382,368	May 8	738		43	659
Mathes, August, Philadelphia, Pa. Clutch mechanism for the driving-shafts of locomotives	394,194	Dec. 11	672	180	45	1208
Mathews, Ambrose T., et al. (See Howes, Albert P., assignor.)						
Mathews, Ambrose T., et al. (See Robbins, George M., assignor.)						
Mathews, Ambrose T., assignor to Worcester Ferrule Company, Worcester, Mass. Pipe-thimble	379,482	Mar. 13	902	244	42	1143
Mathews, Ambrose T., assignor to Worcester Ferrule Company, Worcester, Mass. Thimble for pipes	379,483	Mar. 13	903	244	42	1144
Mathews, Ambrose T., assignor to Worcester Ferrule Company, Worcester, Mass. Knob	385,814	July 10	719	187	44	148
Mathews, Ambrose T., assignor to Worcester Ferrule Company, Worcester, Mass. Turn-key	386,549	July 24	1807	477	44	377
Mathews, Ambrose T., Worcester, Mass., assignor to Worcester Ferrule Company. Sheet-metal knob	392,874	Nov. 13	1028	263	45	801
Mathews, Edwin L., Ada, Minn. Bill-file	382,716	May 15	1268	332	43	771

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Matthews, Edwin L., Ada, Minn. Bill-file. (Reissue) .....	10,948	July 24	2149	564	44	412
Matthews, George, assignor to J. Matthews, New York, N. Y. Ornamenting metal .....	376,605	Jan. 17	1245	326	42	254
Matthews, Henry A., and D. M. Ireland, Waterbury, Conn. Lantern .....	381,053	June 5	315	89, 90	43	1181
Matthews, James H. (See Rees and Matthews.)						
Matthews, John. (See Matthews, George, assignor.)						
Mattijetz, Andreas, Giddings, Tex. Baling-press .....	3-0,810	Apr. 10	760	{ 208 209 }	43	159
Mattison, Charles J., Oswego, N. Y. Machine for packing pulverulent substances .....	383,136	May 22	1887	492	43	903
Mattison, Lucius H. (See Rockwell, Dwight, assignor.)						
Mattison, W. Harry. (See Pagán, Orestes, assignor.)						
Mattison, Charles G., Lindstrom, Minn. Water-fetching machine .....	383,894	June 5	66	20	43	1133
Matz, William G. (See Andrews, Edward, assignor.)						
Matzow, Franz. (See Holland and Matzow.)						
Maulhetch, John, <i>et al.</i> (See Van Winkle, Asa T., assignor.)						
Maule, Francis L., Philadelphia, Pa. Screw-cutting die .....	380,908	Apr. 10	911	245	43	187
Maurer, Joseph. (See Noel and Maurer.)						
Maurer, Lucas, Boston, Mass. Cake-cutter .....	379,019	Mar. 6	234	67	42	1010
Maurer, Ludwig, assignor of one-half to H. C. Scheer, New York, N. Y. Convertible scaffold and fire-escape .....	394,781	Dec. 18	1611	423	45	1403
Maurino, Henry O., assignor to himself, A. Trorlicht, and M. Mande'l, Albuquerque, N. Mex. Ter. Wheel .....	383,966	June 5	188	55	43	1156
Maury, Theodore, and E. Roubinet, Terrasson, France. Horse-detacher .....	3-3,742	May 29	2778	732	43	1082
Mausser, Alfred, Sing Sing, and G. G. Richmond, Peckskill, N. Y. Core-machine .....	376,155	Jan. 10	613	165	42	128
Mausser, Paul, assignor to Waffenfabrik Mauser, Oberndorf-on-the-Neckar, Württemberg, Germany. Detachable magazine for fire-arms .....	383,895	June 5	67	21	43	1134
Mausser, Paul, assignor to Waffenfabrik Mauser, Oberndorf-on-the-Neckar, Württemberg, Germany. Lock mechanism for guns .....	393,842	Dec. 4	157	43	45	1101
Maw, John, Dundas, Ontario, Canada. Positive shuttle-motion for looms .....	377,207	Jan. 31	2147	567	42	443
Maw, John P., Westmoreland, N. Y. Harness-coupling .....	392,681	Nov. 13	742	188	45	743
Mawhinney, Samuel, Worcester, Mass. Boot and shoe tree .....	391,978	Oct. 30	2532	685	45	527
Mawhinney, Samuel, Worcester, Mass. Boot or shoe tree .....	393,514	Nov. 27	1969	513	45	1002
Mawhood, Jonathan D., assignor to Richmond City Mill Works, Richmond, Ind. Roller-mill .....	381,710	Apr. 24	2116	553	43	448
Mawhood, Jonathan D., assignor to Richmond City Mill Works, Richmond, Ind. Roller-mill .....	384,919	June 19	1610	418	43	1443
Mawhood, Jonathan D., assignor to Richmond City Mill Works, Richmond, Ind. Roller-mill .....	385,420	July 3	130	35	44	27
Maxam, Melvin, Beloit, Ohio. Fence .....	393,168	Nov. 20	1442	376	45	889
Maxim, Hiram S., London, England. Manufacture of guns .....	376,990	Jan. 24	1832	42	372	2
Maxim, Hiram S., London, England. Making cartridge-shells .....	387,651	Aug. 14	692	178	41	712
Maxim Nordenfeli Guns and Ammunition Company. (See Nordenfeli, Thorsten, assignor.)						
Maxon, Daniel M., assignor of one-half to J. Griffin, Bay City, Mich. Conveyor .....	391,756	Oct. 23	2191	591	45	450
Maxon, Thomas, Dayton, Ohio. Disk harrow .....	391,258	Oct. 16	1514	402	45	306
Maxon, Thomas, assignor of one-half to J. W. Carpenter, Dayton, Ohio. Lifting-jack .....	395,161	Dec. 25	2236	575	45	1529
Maxson, John F., Bolivar, N. Y. Can .....	394,381	Dec. 11	1765	254	45	1266
Maxson, Ralph H., Richburg, N. Y. Stand for displaying goods .....	378,206	Feb. 21	1292	341	42	766
Maxwell, George S., Louisville, Ky. Bridge for cutting in new loops in telephone systems .....	394,195	Dec. 11	673	180	45	1209
Maxwell, George W., Homer, N. Y. Mowing-machine .....	393,914	Dec. 4	269	73	45	1123
Maxwell, Harry B., Rome, N. Y. Gag-runner .....	381,400	Apr. 17	1651	441	43	339
Maxwell, Joseph W., Louisville, Ky. Saw-guide .....	384,773	June 19	1393	364	43	1403
May & Co., Hilder. (See Cook, Gustave, assignor.)						
May, M. C., <i>et al.</i> (See Cook, Gustave, assignor.)						
May, S. Elwood. (See Hallas, James G., assignor.)						
May, S. Elwood. (See Hennemeier, Louis, Jr., assignor.)						
May, Thomas H. D., Bath, county of Somerset, England. Book-rest for the use of invalids .....	394,196	Dec. 11	676	181	45	1209
Mayall, John J. E., Southwick, county of Sussex, England. Producing uncolored and colored photographic impressions .....	382,369	May 8	739	43	659	
Mayall, Lucy A., executrix. (See Mayall, Thomas J.)						
Mayall, Thomas J., deceased, Reading, Mass.; L. A. Mayall, executrix. Pneumatic-railway system .....	381,401	Apr. 17	1655	{ 441 442 }	43	339
Mayall, Thomas J., deceased, Reading, Mass.; L. A. Mayall, executrix. Thread-guide for loom shuttles .....	381,402	Apr. 17	1657	413	43	340
Mayall, Thomas J., deceased, Reading, Mass.; L. A. Mayall, executrix. Elevated railway .....	381,403	Apr. 17	1658	443	43	340
Mayall, Thomas J., deceased, Reading, Mass.; L. A. Mayall, executrix. Friction-roller for cable-grips and other purposes .....	381,404	Apr. 17	1660	444	43	341
Mayall, Thomas J., deceased, Reading, Mass.; L. A. Mayall, executrix. Combined elevated and surface railway .....	381,405	Apr. 17	1662	{ 444 445 }	43	341
Mayall, Thomas J., deceased, Reading, Mass.; L. A. Mayall, executrix. Quaternary yielding lever .....	382,267	May 1	571	144	43	618
Mayall, Thomas J., deceased, Reading, Mass.; L. A. Mayall, executrix. Railway system .....	381,054	June 5	317	90, 91	43	1181
Mayall, Thomas J., deceased; L. A. Mayall, executrix, Reading, Mass. Anti-friction compound .....	384,920	June 19	1611	43	1444	
Mayall, Thomas J., deceased; L. A. Mayall, executrix, Reading, Mass. Elevated railway .....	384,921	June 19	1612	419	43	1444
Mayer, J. Frederick, assignor of one-half to Bartlett, Hayward & Co., Baltimore, Md. Gas-holder guide-wheel carriage .....	386,410	July 17	1593	418	41	328
Mayer, Joseph, Chicago, Ill. Bath-brush and towel operating mechanism .....	391,325	Oct. 16	1605	425	45	324
Mayer, Joseph S. (See Snow, Arthur, assignor.)						
Mayer, Max B., <i>et al.</i> (See Wulff, Henry F., assignor.)						
Mayer, Stronse & Co. (See Bray, Morris P., assignor.)						
Mayes, William B., McPherson, Kans. Rotary steam-engine .....	387,093	July 31	2608	685	44	538
Mayfield, Guilford E., <i>et al.</i> (See Fee, William R., assignor.)						
Mayfield, I. T., <i>et al.</i> (See Mayfield, William D., assignor.)						
Mayfield, W. F., <i>et al.</i> (See Mayfield, William D., assignor.)						
Mayfield, William D., assignor to W. F. and I. T. Mayfield, Fort Worth, Tex. Dental operating-chair .....	385,468	July 3	200	52, 53	44	40
Mayhew, Francis H., <i>et al.</i> (See Wilkins, George H., assignor.)						
Maynadier, James E., Taunton, assignor to Busell Trimmer Company, Boston, Mass. Rotary cutter .....	380,338	Apr. 3	46	16	43	11
Maynard, Charles, Montague, Mass. Weeding-tool .....	384,635	June 19	1192	315	43	1363
Maynard, Charles A., Northampton, Mass. Manufacture of shovels, spades, &c .....	389,934	Sept. 25	1731	458	44	1425
Maynard, Charles A., Northampton, Mass. Making shovels, &c .....	391,259	Oct. 16	1515	402	45	307
Maynard, Edwin B. (See Bassford and Maynard.)						
Maynard, John, <i>et al.</i> (See Taylor, William H., assignor.)						
Maynard, John, Bowmanville, Ontario, Canada. Combined latch and lock .....	393,379	Nov. 27	1759	466	45	960
Maynard, William T., Forsyth, Ga. Double-set plow .....	380,214	Mar. 27	2010	538	42	1376

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Maynz, Edward, Boston, Mass. Shoe-fastener .....	391,906	Oct. 30	2428	656	45	508
Mayo, Israel C., Gloucester, Mass. Can .....	389,234	Sept. 11	666	171	44	1206
Mayo, Junius E., North Manchester, Conn. Electrical switch .....	385,815	July 10	720	188	44	148
Mazoyer, Jean L., New York, N. Y. Ironing-machine .....	389,971	Sept. 25	1779	472 473 499	44	1435
McAdams, John, Brooklyn, N. Y. Paging-machine .....	378,607	Feb. 28	1886	500	42	889
McAfee, John F., Pleasant Hill, Mo. Paper-hanging clamp .....	387,792	Aug. 14	890	230	44	750
McAfee, John F., Pleasant Hill, Mo. Wall-paper-hanging machine .....	387,793	Aug. 14	891	230 231	44	750
McAfferty, Julia, Chicago, Ill. Photograph-holder .....	381,154	Apr. 17	1303	348	43	270
McAllister, Francis M. (See Fergusson, John, assignor.) .....						
McAllister, Scott W., Union Bridge, Md. Divider for harvesting-machines .....	393,774	Dec. 4	59	17	45	1084
McAllister, Alma S., et al. (See Britton, William H., assignor.) .....						
McAllister, Daniel. (See Lefmann and McAllister.) .....						
McAndrews Sanitary Company. (See McAndrews, William H., assignor.) .....						
McAndrews, William H., assignor of one-half to A. M. Gerstle, Youngstown, Ohio. De- vice for converting motion .....	379,405	Mar. 13	782	211	42	1120
McAndrews, William H., assignor to McAndrews Sanitary Company, Youngstown, Ohio. Sewer-ventilator .....	379,899	Mar. 20	1558	410	42	1277
McAneny, Michael, Denver, Colo. Concentrator .....	394,197	Dec. 11	677	181	45	1209
McAnlis, W. K., et al. (See Kellogg, Alfred J., assignor.) .....						
McAnulty, J. A., et al. (See Jewell, William M., assignor.) (Reissue.) .....						
McAnulty, John A., Minneapolis, Minn. Feed-regulator .....	394,278	Dec. 11	07	214	45	1235
McAnulty, John A., Minneapolis, Minn. Roller-mill .....	394,279	Dec. 11	808	214 215	45	1235
McAnulty, John A., Minneapolis, Minn. Pitman .....	394,280	Dec. 11	812	215	45	1236
McAnulty, John A., Minneapolis, Minn. Pitman .....	394,281	Dec. 11	814	216	45	1236
McArthur, John, Wallace, Kans. Plow .....	379,653	Mar. 20	1160	306	42	1200
McArthur, Robert C., assignor of one-half to W. D. Fitch, Hamilton, Ontario, Canada. Device for operating throttle-valves .....	379,318	Mar. 13	663	179	42	1096
McArthur, Robert X., Albert Lea, Minn. Combined hat and coat rack .....	382,315	May 8	650	166	43	643
McAnley, Robert J. (See Frisbie, Henry B.) .....						
McAuliffe, Samuel. (See Donnell and McAuliffe.) .....						
McAvoy, Hugh L., assignor of one-half to S. H. Caughy, Baltimore, Md. Pneumatic fire- hydrant .....	381,805	Apr. 24	2244	587	43	472
McBrayer, Thomas E., Shelby, N. C. Suture-needle .....	389,235	Sept. 11	668	171	44	1207
McBride, James A. (See Ball and McBride.) .....						
McBride, John G., San Francisco, Cal. Paper and twine holder .....	381,155	Apr. 17	1304	348	43	271
McBride, T. J. (See Lanbe, Godfried, assignor.) .....						
McBride, Thomas J., Winnipeg, Manitoba, Canada. Stove for burning straw, &c .....	390,304	Oct. 2	141	40	45	31
McBride, William, Portland, Me. Snatch-block .....	394,499	Dec. 11	1124	292	45	1294
McCabe, Thomas W. R., Philadelphia, Pa. Apparatus for grinding lathe-centers .....	394,786	Dec. 18	1623	425	45	1405
McCaffrey, John. (See Long and McCaffrey.) .....						
McCaffrey, John, Lawrence, Mass. Mold for casting loose pulleys .....	377,859	Feb. 14	786	201	42	659
McCague, John L. (See Bartlett, Edward C., assignor.) .....						
McCague, John L. (See Watson, Charles H., assignor.) .....						
McCahey, John, assignor to New England Butt Company, Providence, R. I. Braid .....	377,320	Jan. 31	2314	671	42	473
McCahey, John, assignor to New England Butt Company, Providence, R. I. Braiding- machine .....	385,364	July 3	40	12, 13	44	10
McCall, Charles S., and J. L. Napier, Bennettsville, S. C. Cotton-cultivator .....	383,743	May 29	2780	732	43	1083
McCall, Hugh W. (See Morton, Samuel S., assignor.) .....						
McCall, Joseph W., Kansas City, Mo. Plant-protector .....	382,370	May 8	741	187	43	659
McCall, Wilson C., et al. (See Harden, William H., assignor.) .....						
McCallum, James, assignor to J. McCallum Manufacturing Company, Elgin, Ill. Potato- digger .....	393,380	Nov. 27	1761	467	45	961
McCallum Manufacturing Company, J. (See McCallum, James, assignor.) .....						
McCance, David, Newark, N. J. Die for harness-mountings .....	394,282	Dec. 11	816	216	45	1237
McCandless, John C., Randolph, Kans. Cotton scraper, chopper, and cultivator .....	388,985	Sept. 4	261	69	41	1123
McCann, Benjamin F., Ewing, Ind. Well .....	377,903	Feb. 14	832	217	42	672
McCann, Horace F. (See Farra, Lorenzo D., assignor.) .....						
McCann, Michael, Johnstown, Pa. Railway-switch .....	376,006	Jan. 3	389	103	42	78
McCarney, Jacob. (See Gamble, Joseph W., assignor.) .....						
McCarthy, Joseph, et al. (See Drodzowski, Julius R., assignor.) .....						
McCarthy, Michael, Middletown, Conn. Floating anchor and oiler .....	378,171	Feb. 21	1243	327	42	755
McCarthy, Felix, Pottstown, assignor of part to Weiner Machine Works Company, Leba- non, E. S. Cook and I. Fegley, Pottstown, Pa. Speed and pressure regulator for blow- ing-engines .....	385,941	July 10	909	242	44	186
McCarthy, Felix, assignor of two-thirds to I. Fegley and E. S. Cook, Pottstown, Pa. Blast- furnace tuyere-valve .....	394,384	Dec. 11	870	255	45	1267
McCarthy, Pierce, and P. Thenis, North Vernon, Ind. Cork-screw .....	382,005	May 1	183	47	43	547
McCartney, James H., Frankfort, N. Y. Label-case .....	377,764	Feb. 14	653	164	42	635
McCarty, Daniel, Harlem, Ill. Gate .....	382,316	May 8	651	106	43	643
McCarty, Daniel, Independence, Iowa. Pumpkin-seed planter .....	386,643	July 24	1926	509	41	461
McCarty, Michael, Montrose, Colo. Current-motor .....	386,255	July 17	1369	361	41	281
McCarty, Robert A., assignor to Rapid Service Store Railway Company, Detroit, Mich. Track for store-service railways .....	378,514	Feb. 28	1753	403	42	862
McCaslin, George W., New York, N. Y. Conveyor .....	387,241	Aug. 7	61	14 15	44	583
McCastline, Minnie B., Syracuse, N. Y. Carpet-fastener .....	379,236	Mar. 13	545	152	42	1075
McCausland, James M., Pepperell, Mass. Paper-board machine .....	383,744	May 29	2781	732	43	1083
McCausland, William I., Temple, Tex. Washing-machine .....	377,765	Feb. 14	654	164	42	635
McCorren, Bernerd, Rockford, Ill. Tubular boiler .....	389,893	Sept. 25	1676	442 443	44	1413
McClain, Edward L. (See Bell, Charles E., assignor.) .....						
McClave, William, Scranton, Pa. Stationary grate for furnaces .....	393,843	Dec. 4	158	43	45	1102
McClave, William, Scranton, Pa. Stove, range, or furnace grate .....	393,844	Dec. 4	160	44	45	1102
McCleane, George F., and W. M. Faber, Jr., Pittsburg, Pa. Ingot-mold .....	387,174	July 31	2736	718	41	559
McCleary, William W., assignor of one-half to G. N. Riley, Braddock, Pa. Mail-crane .....	376,781	Jan. 24	1339	405	42	217
McClellan, Curtis D., Keota, Iowa. Device for breaking up the laminations of the clay in screw brick-machines .....	390,879	Oct. 9	947	250	45	192
McClellan, Ezra S., Paterson, N. J. Air-inlet for sewers and drains .....	381,711	Apr. 24	2119	533	43	448
McClellan, John W., Middletown, Ohio. Lawn-mower .....	383,896	June 5	72	21	43	1135
McClellan, Robert L., et al. (See Wilson, David Y., assignor.) .....						
McClelland, Alexander C., Island City, Oregon. Grain-drill .....	386,484	July 24	1702	450	44	359
McClelland, John A., Louisville, Ky. Dental pencil .....	375,827	Jan. 3	136	40	42	32

*Alphabetical list of patents—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
McClelland, John A., Louisville, Ky., assignor of one-half to W. B. Bushnell, New York, N. Y. Toilet-case	390,089	Sept. 25	1963	522	41	1472
McClintock, Charles E., St. Joseph, Mo. Snap-hook	394,598	Dec. 18	1302	311	45	1342
McClintock, George W., Quincy, Mass. Landing-net	382,317	May 8	652	166	43	643
McCloskey, William, assignor of one-half to G. Kopp, New Orleans, La. Device for opening and closing railway-switches	390,181	Sept. 25	2098	559	41	1499
McCloud, Sidney. (See Lewis and McCloud.)						
McCloud, Sidney, Chicago, Ill. Machine for reducing railway-rails	380,504	Apr. 3	295	86	41	60
McCluey, Hugh, Keokuk, Iowa. Detachable plow-point	382,179	May 4	441	115	43	594
McClung, James S., Pueblo, Colo. Cleaner for blackboard-erasers	378,608	Feb. 28	1888	500	42	849
McCoig, Donald, Mull, Ontario, Canada. Twine-oiler for self-binding reapers	391,909	Oct. 30	2432	657	45	508
McCollin, Thomas H., Philadelphia, Pa. Photographic flash-light apparatus	384,636	June 19	1193	315	43	1364
McCollom, Thomas C., Brooklyn, N. Y. Paper-fastening-setting tool	393,915	Dec. 4	270	74	45	1123
McCollum, Franklin D. (See Suediker, Graham, McCollum, and Suediker.)						
McCollum, Franklin D., Florence, assignor of three-fourths to J. R. Graham, Emporia, Kans., I. F. Suediker, Independence, Mo., and D. L. Suediker, Emporia, Kans. Portable head-rest for travelers	392,212	Nov. 6	49	13	45	604
McConnell, Florence. (See Hadfield and McConnell.)						
McConnell, John. (See Thurber and McConnell.)						
McConnell, John E., Des Moines, Iowa. Reamer and constructing the same	393,775	Dec. 4	60	17	45	1084
McConnell, Robert Y. (See Huehn, Conrad, assignor.)						
McConnell, Thomas G., Collinsville, Ill. Potato-planter	394,596	Dec. 18	1299	340	45	1341
McCool, William A. (See Bradford, Oliver B., assignor.)						
McCool, William A., assignor to Hartman Steel Company, (limited,) Beaver Falls, Pa. Straightening-machine	388,701	Aug. 28	2297	618	44	1033
McCool, William A., assignor to Hartman Steel Company, (limited,) Beaver Falls, Pa. Machine for drawing metals	388,782	Aug. 28	2412	650 651	44	1055
McCord, Andrew J., Louisville, Ky., assignor of one-half to J. F. McGregor, Columbia, Tenn. Buckle	392,962	Nov. 13	1151	299	45	824
McCord, James R., Jackson, Ga. Machine for distributing fertilizers	377,166	Jan. 31	2088	549	42	431
McCorkill, John G. R. (See Law, Isaac D., assignor.)						
McCormack, M. J. (See Kelly, John A., assignor.)						
McCormick Cane Umbrella Company. (See McCormick, John, assignor.)						
McCormick, Charles W., Emporia, Kans. Store-service apparatus	376,897	Jan. 24	1711	448 449	42	349
McCormick, Charles W., Emporia, Kans. Attachment for plows	388,428	Aug. 28	1907	510	41	959
McCormick, Cyrus H., Jr., and H. E. Pridmore, assignors to McCormick Harvesting Machine Company, Chicago, Ill. Grain-binder	378,401	Feb. 21	1581	415 416	42	829
McCormick, Edward, assignor of one-half to J. D. Maloney, Syracuse, N. Y. Globe-oiler	390,132	Sept. 25	2025	539	41	1485
McCormick, George, Washington, D. C. Sawing-machine	385,469	July 3	203	53	44	41
McCormick Harvesting Machine Company. (See Erpelding, Lambert, assignor.)						
McCormick Harvesting Machine Company. (See Locke, Sylvanus D., assignor.)						
McCormick Harvesting Machine Company. (See McCormick and Pridmore, assignors.)						
McCormick Harvesting Machine Company. (See Pridmore, Henry E., assignor.)						
McCormick, John, assignor to McCormick Cane Umbrella Company, Washington, D. C. Cane-umbrella	386,078	July 10	1087	292	44	222
McCormick, John B., Holyoke, Mass. Molding apparatus	381,156	Apr. 17	1305	349	43	271
McCormick, Moses, Calverton, Md. Sully	377,045	Jan. 31	1911	502	42	395
McCormick, Thomas J., Whiting, Kans. Listing-cultivator	375,944	Jan. 3	295	79, 80	42	61
McCornack, E. A. (See McCornack, Herbert, assignor.)						
McCornack, Herbert, McQueen, assignor of one-half to E. A. McCornack, Oak Glen, Ill. Nailing implement	392,963	Nov. 13	1151	299 300	45	824
McCourt, James. (See Wilkinson and McCourt.)						
McCowan, William H., Watertown, Ohio. Wagon-brake	391,170	Oct. 16	1395	371 372	45	283
McCoy, Dennis D. (See Pilkington, Jonathan, assignor.)						
McCoy, Elijah, assignor to H. C. and C. C. Hodges, Detroit, Mich. Lubricator	383,745	May 29	2782	733	43	1083
McCoy, Elijah, assignor to H. C. and C. C. Hodges, Detroit, Mich. Lubricator	383,746	May 29	2783	733	43	1083
McCoy, Hamilton, Indianapolis, Ind. Draft-equalizer	377,812	Feb. 14	728	184	42	618
McCoy, Henry L., Lake, Ind. Cultivator	382,180	May 1	442	115	41	594
McCoy, John A., Medford, Mass. System of telephonic intercommunication	384,938	May 1	53	14	43	525
McCoy, William D., Orange, N. J. Boot or shoe	393,776	Dec. 4	60	17	45	1084
McCracken, George B., assignor of one-half to W. Stites, Willimantic, Conn. Shuttle-guard for looms	390,498	Oct. 2	428	111	45	87
McCrackin, Alexander, Fairfield, Iowa. Boat-detaching apparatus	385,466	July 19	801	212	41	163
McCray, John B., and D. E. Shade, Corbin, Kans. Car-coupling	378,702	Feb. 28	2026	535	42	915
McCray, Millard F., Covgill, Mo., and J. E. Norton, Detroit, Mich. Combination tool	382,481	May 1	443	115	43	595
McCrea, John E. (See Young and McCrea.)						
McCreary, James F., New Brighton, Pa. Detachable chain	387,690	Aug. 14	751	192	44	723
McCreary, John, Cohoes, N. Y. Machine for winding bobbins	386,641	July 24	1927	509 510	44	402
McCreary, Thomas H., New Brighton, Pa. Stanchion	386,890	July 31	2323	610	44	482
McCreery, Joseph, Toledo, Ohio. System for ventilating buildings	390,030	Sept. 25	1861	493	44	1451
McCreery, Robert S. (See Kesseling, Friedrich, assignor.)						
McCrossan, Thomas, Winnipeg, Manitoba, Canada. Heater for cars and buildings	381,806	Apr. 24	2245	588	43	472
McCrosen, Wilber M., West Branch, Mich. Road-cart	384,375	June 12	812	211	43	1283
McCulla, Frank M., assignor to F. H. Leach, Philadelphia, Pa. Paper bag	392,964	Nov. 13	1154	300	45	824
McCulla, Thomas. (See Bagley, Frank A., assignor.)						
McCulloch, Belle B., New York, N. Y. Type-writer's erasing-shield	391,419	Oct. 23	1737	463	45	356
McCulloch, George H., assignor of one-half to J. McCulloch, Lena, Ill. Grinding-mill	379,900	Mar. 20	1559	410	42	1277
McCulloch, John. (See McCulloch, George H., assignor.)						
McCulloch, John A. (See Shaw and McCulloch.)						
McCullough, Mary T. (See McCullough, Robert A., assignor.)						
McCullough, Robert A., assignor to M. T. McCullough, Milwaukee, Wis. Making soap	384,503	Apr. 17	1819		43	371
McCully, John H., Rumney, N. H. Finishing ladder-rails	392,814	Nov. 13	949	243	45	784
McCurdy, Thomas B., Lancaster, Tex. Vehicle top	381,630	Apr. 24	2092	525	43	421
McCutcheon & Co., R. H. (See Hebbard, Franklin, assignor.)						
McCutcheon, John B., Battle Creek, Mich. Grain-measuring spout	387,001	July 31	2482	651	44	515
McDaniel, George L., Murray, Ky. Hoisting device	392,624	Nov. 13	663	165	45	728
McDermott, James L. (See Lane, Andrew W., assignor.)						
McDermott, John, assignor of one-half to T. F. Barnum, Troy, N. Y. Flossing-machine	386,839	July 31	2248	591 592	44	468
McDermott, Patrick. (See Hurley, Simon J., assignor.)						
McDermott, Patrick, assignor to Milburn Gin and Machine Company, Memphis, Tenn. Key for pulleys	378,260	Feb. 21	1385	362	42	781



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dist.	Vol.	Page.
McDermott, William J., Grubbsville, Mo. Vehicle-shaft .....	376,751	Jan. 24	1482	{ 390 391	42	307
McDernaid, John, Rockford, Ill. Closure for churns .....	390,629	Oct. 9	683	182	45	144
McDevitt, Bernard, Chicago, Ill. Draw-gear for street-cars .....	379,587	Mar. 20	1068	284	42	1182
McDevitt, Walter J., assignor of one-half to H. A. Truitt, Philadelphia, Pa. Circular-knitting machine .....	376,328	Jan. 10	852	224	42	172
McDill, Henry C., Fort Worth, Tex. Cut-out for electric circuits .....	391,853	Oct. 30	2351	638	45	491
McDonald, Alexander E., Brooklyn, N. Y. Hand-measure for fitting gloves .....	383,365	May 22	2213	587	43	964
McDonald, Alexander J., Chicago, Ill. Tie for railway-gates .....	383,967	June 5	189	55	43	1156
McDonald, Alexander J., Chicago, Ill. Railway-gate lamp .....	383,968	June 5	190	55	43	1157
McDonald, Alexander J., Chicago, Ill. Railway-gate .....	383,969	June 5	191	56	43	1157
McDonald, Branson, Macksville, W. Va. Grain-tally .....	393,777	Dec. 4	62	18	45	1084
McDonald, Charles B., and W. Wagner, Chicago, Ill. Can-soldering machine .....	391,171	Oct. 16	1396	{ 372 373	45	284
McDonald, Charles H., assignor of one-half to W. A. Hance, Springfield, Ohio. Trace-fastener .....	388,429	Aug. 28	1909	510	44	959
McDonald, Donald, Louisville, Ky. Sliding jail-door .....	380,443	Apr. 3	189	54	43	41
McDonald, Donald, Louisville, Ky. Apparatus for transporting and setting stone .....	387,794	Aug. 14	893	231	44	751
McDonald, Frank, Boise City, Idaho Ter. Shackle .....	375,945	Jan. 3	296	60	42	62
McDonald, Frank R. (See St. Cyr and McDonald.) .....						
McDonald, Gilbert, Denver, Colo. Machine for punching and shearing metal .....	377,264	Jan. 31	2232	590	42	457
McDonald, Gregor. (See Hippolito, Espridion, assignor.) .....						
McDonald, James, deceased; M. H. McDonald administratrix and assignor to Bunce & Benedict, Brooklyn, N. Y. Piano-action .....	386,079	July 10	1088	292	44	222
McDonald, James, deceased; M. H. McDonald administratrix and assignor to Bunce & Benedict, Brooklyn, N. Y. Piano-forte .....	386,080	July 10	1090	293	44	223
McDonald, James S., Chicago, Ill. Manifold order-book .....	377,360	Jan. 31	2321	688	42	424
McDonald, John, assignor of one-half to E. Marsh, Allentown, Pa. Machine for making dowel-pins .....	393,253	Nov. 20	1568	411	45	915
McDonald, John B., et al. (See Barber and Finigan, assignors.) .....						
McDonald, Joseph H., New York, N. Y. Letter-box .....	387,242	Aug. 7	64	15	44	584
McDonald, Joseph R., McKenzie, Tenn. Harness attachment .....	377,112	Jan. 31	2023	530	42	416
McDonald, Marshall, Washington, D. C. Filter .....	381,406	Apr. 17	1663	445	43	341
McDonald, Mary H., administratrix. (See McDonald, James.) .....						
McDonald, Michael C., Boston, Mass. Neckscarf .....	377,570	Feb. 7	327	84	42	558
McDonald, Milton. (See Steen and McDonald.) .....						
McDonald, Peter E., assignor of one-third to S. O. Brooks, Detroit, Mich. Ticket-holder .....	388,895	Sept. 4	130	36	44	1097
McDonald, Samuel J., Gallatin, Mo. Road-cart .....	394,711	Dec. 18	1485	{ 387 388	45	1376
McDonald, William H., Washington, D. C. Filtering-faucet .....	379,801	Mar. 20	1384	368	42	1246
McDonald, William H., Albany, N. Y. Electric-storage system .....	389,935	Sept. 25	1731	459	44	1425
McDonel, Alexander T., Lansing, Mich. Shifting-bar for sleighs .....	387,896	Aug. 14	1049	275	44	780
McDonnell, Thomas, Jr., Cockeysville, Md. Stone-channeling machine .....	391,260	Oct. 16	1516	{ 402 403	45	307
McDonough, Thomas. (See Fitzgerald, Mathew, assignor.) .....						
McDougall, Alexander, Duluth, Minn. Apparatus for moving earth, sand, &c .....	393,996	Dec. 4	381	103	45	1144
McDougall, Alexander, Duluth, Minn. Tow-boat .....	393,997	Dec. 4	382	{ 103 104	45	1144
McDougall, Henry, and R. Potter, New York, N. Y. Implement for forming beam-straps .....	391,058	Oct. 16	1238	330	45	254
McDougall, William M., East Orange, N. J. Electric motor for railway-cars .....	382,483	May 8	919	233	43	693
McDougall, William M., East Orange, N. J. Motor for railway-cars .....	387,726	Aug. 14	808	{ 208 209	44	733
McDougall, William M., East Orange, N. J. Corn-husking machine .....	391,172	Oct. 16	1399	373	45	285
McDowell, Alexander, Lynn, Mass. Heel-trimming machine .....	392,275	Nov. 13	1929	264	45	801
McDowell, Malcolm, Plano, assignor to Quincy Metal Wheel Company, Quincy, Ill. Wheel .....	386,332	July 17	1468	329	44	300
McDowell, Samuel J., and E. O. Bicknell; said McDowell assignor to W. O. Ames, Boston, Mass. Heater .....	392,162	Oct. 30	2822	765	45	583
McEachern, Gilbert. (See Campbell, Angus, assignor.) .....						
McElroy Car Heating Company. (See McElroy, James F., assignor.) .....						
McElroy, Charles E., Brockton, assignor of one-half to D. P. Ladd, Medford, Mass. Show-rack .....	382,542	May 8	1011	258	43	712
McElroy, Frank C., Columbus, Ohio. Car-heater .....	384,055	June 5	318	91	43	1181
McElroy, James F., Lansing, Mich. Automatic pipe-coupling .....	384,991	June 26	1712	{ 444 445	43	1473
McElroy, James F., assignor of one-half to L. C. Butler, Lansing, Mich. Electric switch .....	387,526	Aug. 7	485	127	44	667
McElroy, James F., Lansing, Mich., assignor to American Printing House for the Blind, Louisville, Ky. Writing-machine for the blind .....	389,756	Sept. 18	1455	381	44	1363
McElroy, James F., Lansing, assignor to McElroy Car Heating Company, Detroit, Mich. Heating system .....	391,326	Oct. 16	1607	425	45	324
McElroy, James F., Lansing, assignor to McElroy Car Heating Company, Detroit, Mich. Hose-coupling .....	392,355	Nov. 6	264	68	45	644
McElroy, Patrick J. (See Hutton, James C., assignor.) .....						
McElroy, Robert G., Uniontown, Ala. Horse-power .....	381,807	Apr. 24	2246	588	43	472
McElroy, William J. (See Nicholson, McElroy, and McTighe.) .....						
McElroy, William J., Pittsburg, Pa. Transformation and distribution of electric energy .....	392,213	Nov. 6	50	14	45	604
McElroy, William J., Pittsburg, Pa., and T. J. McTighe, New York, N. Y. Transformation and distribution of electrical energy .....	393,073	Nov. 20	1313	342	45	863
McErlain, John J., assignor of one-half to F. A. Baker, South Bend, Ind. Band-pulley .....	394,712	Dec. 18	1486	388	45	1376
McEvilla, Henry, Muskegon, Mich. Saw-mill .....	377,630	Feb. 7	419	{ 106 107	42	575
McEwen, Addison C., Jersey City, N. J. Dumping-wagon .....	376,902	Jan. 24	1718	{ 450 451	42	351
McFadden, John, Philadelphia, Pa. Combined back-band loop and terret .....	392,058	Oct. 30	2652	721	45	550
McFadden, John J., Brooklyn, N. Y. Picket-pointing machine .....	391,628	Oct. 23	2021	546	45	416
McFadden, Patrick, Philadelphia, Pa. Check-hook .....	391,910	Oct. 30	2433	658	45	509
McFadden, Patrick, Philadelphia, Pa. Saddle attachment for harness .....	392,059	Oct. 30	2653	721	45	551
McFadden, Thomas B., Peoria, Ill. Baker's oven .....	380,339	Apr. 3	46	17	43	11
McFadden, Thomas W., Muskegon, Mich. Hopper-cock for water-closets .....	388,896	Sept. 4	133	36	44	1097
McFarland, Samuel G., New York, N. Y. Flushing apparatus for water-closets .....	378,100	Feb. 21	1131	296	42	736
McFarland, Thomas W., Chicago, Ill. Sad-iron heater .....	376,782	Jan. 24	1540	405	42	318
McFarlane, Daniel, et al. (See Clarke, Reuben, assignor.) .....						
McFerran, Joseph A., Philadelphia, Pa. Pill-machine .....	387,002	July 31	2483	652	44	515
McGaffey, Ives W., assignor to J. H. Brown, Chicago, Ill. Hose-reel .....	380,127	Mar. 27	1894	504	42	1352
McGaffey, Ives W., assignor to J. H. Brown, Chicago, Ill. Hose-nozzle .....	382,099	May 1	336	88	43	575

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
McGahan, Fred L., Indianapolis, Ind. Flue-cleaner	391,173	Oct. 16	1401	374	45	285
McGahan, Fred L., Indianapolis, Ind. Water-gage	391,870	Dec. 18	1763	457	45	1431
McGann, Owen J., Pittsburg, Pa. Pressure-regulator and cut-off	380,441	Apr. 3	201	55	43	41
McGann, Thomas F. (See Casselman and McGann.)						
McGann, Thomas F., Somerville, Mass. Show-rack	391,595	Dec. 18	1297	310	45	1341
McGarvey, William B., assignor of one-half to W. A. Rose, Rochester, Pa. Composition for converting india-rubber or its compounds into hardened rubber	383,137	May 22	1888		43	903
McGeary, James, Boston, Mass. Inhaler	377,571	Feb. 7	327	84	42	558
McGee, George J., et al. (See Barry, Charles, assignor.)						
McGee, James. (See Edwards, Charles S., assignor.)						
McGee, Joseph D., Chipley, Ga. Tire-shrinker	381,939	May 1	58	15	43	526
McGee, Patrick, Providence, R. I. Apparatus for cleaning charged gas-pipes	380,910	Apr. 10	914	245	43	187
McGee, Patrick F., Oregon City, Oreg. Car-heater	380,404	Mar. 27	1773	474	42	1328
McGehee, Abner J., Jackson, Tenn. Car-coupling	376,452	Jan. 17	1071	280	42	220
McGehee, Abner J., Jackson, Tenn. Cotton-bale cover	390,499	Oct. 2	429	111	45	88
McGinness, Martin C., and J. Tweedie; said McGinness assignor to A. Priesmeyer, Jefferson City, Mo. Breast-attachment for heeling machines	390,384	Oct. 2	264	70	45	56
McGill, George F., Camden, N. J. Vehicle-shaft	385,564	July 3	350	91	44	70
McGill, George W. (See Shipley, Ralph J., assignor.)						
McGill, George W., New York, N. Y. Suspension device	392,519	Nov. 6	500	126	45	690
McGill, George W., New York, N. Y. Handle for boxes, &c	395,162	Dec. 25	2237	575	45	1529
McGill, John J. (See Diescher and McGill.)						
McGillivray, Norman. (See Bailey and McGillivray.)						
McGillivray, John, assignor of one-half to J. R. Watson, Sacramento, Cal. Sidewalk and similar construction	388,986	Sept. 4	262	69	44	1123
McGinnis, William B., Nevada, Mo. Pump	379,237	Mar. 13	545	152	42	1075
McGlashan, Charles F., Truckee, Cal. Show-case for entomological and other specimens	380,762	Apr. 10	635	192	43	147
McGonigle, Ira M., Shanesville, Ohio. Wagon-lock	376,329	Jan. 10	854	221	42	172
McGovern, Bernard, assignor to N. Taylor, Norwalk, Conn. Thill-coupling spring	393,019	Nov. 20	1243	332	45	850
McGovern, Thomas, New York, N. Y. Folding trestle	391,629	Oct. 23	2023	547	45	416
McGovey, Edward, Mokena, Ill. Horse hay-rake	391,198	Dec. 11	678	182	45	1210
McGowan, Frank P., et al. (See Parkerton, George W., assignor.)						
McGowan, Irving. (See Hopkins, William W., assignor.)						
McGowan, John, Quincy, Mass. Combined chair and step-ladder	393,169	Nov. 20	1443	376	45	889
McGowen, Alexander, Independence, Iowa. Heater for watering-tanks	386,645	July 24	1929	510	44	462
McGowen, John J., Ithaca, N. Y. Electric gas-lighter	388,294	Aug. 21	1703	454	44	916
McGrann, Bernard J., et al. (See Snyder, Elmer E., assignor.)						
McGrath, Edward C., Racine, Wis. Road-cart	392,622	Nov. 13	661	166	45	728
McGrath, John, New York, N. Y. Head-rest for collars	378,207	Feb. 21	1293	342	42	766
McGrath, Thomas, Albany, N. Y. Journal-box	390,880	Oct. 9	948	250	45	192
McGregor, J. F. (See McCord, Andrew J., assignor.)						
McGuire, Alexander. (See Teed, Ralph L., assignor.)						
McGuire, Elwood W. (See Dille and McGuire.)						
McGuire, Herbert E., assignor of one-half to J. W. Cowart, Pearllington, Miss. Boat	388,783	Aug. 28	2413	651	44	1056
McGukin, James K., Newark, N. J. Shutter-worker	376,539	Jan. 17	1152	302	42	235
McGukin, James K., Newark, N. J. Shutter-worker	392,214	Nov. 6	53	14	45	605
McGunnigle, William H. (See Kingston and McGunnigle.)						
McGwin, James, Fulton, Mo. Gage-cock	377,321	Jan. 31	2315	672	42	473
McHale, John. (See Jarboe and McHale.)						
McHarg, Don P., Rome, N. Y. Toasting or broiling implement	377,398	Feb. 7	46	13	42	504
McHarg, John B., Rome, N. Y. Toy cartridge-exploder	377,399	Feb. 7	47	13	42	505
McHenry, Feargus G., and H. Martin, Bloomington, Kans. Combined wire-tightener and staple driver and extractor	383,970	June 5	192	56	43	1157
McHenry, John. (See Senour and McHenry.)						
McHenry, John, Cincinnati, Ohio. Gas-burner	380,485	July 24	1703	450	44	359
McHenry, John T., Chicago, Ill. Corn-harvester	382,100	May 1	336	88, 89	43	575
McHenry, Martin J. (See Heard, William H., assignor.)						
McHenry, Reuben A., assignor of one-half to A. L. Blankenmeister, Winfield, Kans. Stone or marble drill	394,787	Dec. 18	1624	425	45	1405
McHugh, Aloysius, Dubois, Pa. Splice-bar	379,176	Mar. 6	442	125	42	1050
McHugh, Hugh, assignor of one-half to F. Taber, New Bedford, Mass. Inlaying wood	390,611	Oct. 2	571	151	45	115
McHugh, Timothy, Boston, Mass. Water-closet valve	392,741	Nov. 13	831	211	45	761
McHugh, Timothy, assignor to W. H. Ward & Co., Boston, Mass. Self-closing faucet	383,138	May 22	1889	492	43	903
McIlhenny, George A., and T. G. Lansden, Washington, D. C. Hydraulic main for gas-works	380,911	Apr. 10	916	245	43	187
McIndoe, George F. (See McIndoe, James W. and G. F.)						
McIndoe, George F. and J. W., Boston, Mass. Impressing letters and marks on cigars	379,020	Mar. 6	235	67	42	1010
McIndoe, George F. and J. W., Boston, Mass. Relief-die and making the same	385,519	July 3	277	71	44	56
McIndoe, James W. (See McIndoe, George F. and J. W.)						
McIndoe, James W. and G. F., Boston, Mass. Cigar-printing machine	391,987	Dec. 25	1962	{ 505 } { 506 }	{ 45 }	1477
McInnes, John P. (See McInnes, Malcolm and J. P.)						
McInnes, Malcolm and J. P., Toledo, Ohio. Gang-plow	393,074	Nov. 20	1315	343	45	864
McIntire, Charles, Newark, N. J. Sash-holder	391,911	Oct. 30	2135	658	45	509
McIntire, Charles, Newark, N. J., assignor of one-third to J. A. Seely, Brooklyn, N. Y. Electric conductors and uniting the same	389,314	Sept. 11	789	201	44	1230
McIntosh, Clark T., Dadeville, Ala. Cotton-chopper	388,139	Aug. 21	1461	392	44	868
McIntosh, John E., Auburn, N. Y. Valve for steam-engines	384,637	June 19	1193	315	43	1364
McIntosh, William E., Keene, N. H. Burglar-alarm	382,454	May 8	920	233	43	694
McIntosh, William E., assignor of one-half to F. H. Wyman, Keene, N. H. Burglar-alarm	380,912	Apr. 10	917	246	43	188
McInturf, Robert, Hickory, N. C. Plow	387,003	July 31	2486	653	44	515
McIntyre, Byron F., East Orange, N. J., assignor to C. M. Cohn, Washington, D. C. Fire-proofing compound	391,261	Oct. 16	1518		45	307
McIntyre, Byron F., East Orange, N. J., assignor to C. M. Cohn, Washington, D. C. Fire-proofing compound	391,327	Oct. 16	1608		45	324
McIntyre, C. W. (See Lenhart, George E., assignor.)						
McIntyre, Frank, assignor to Eagle Pencil Company, New York, N. Y. Combination Instrument	378,261	Feb. 21	1385	363	42	781
McIntyre, George W., Cleveland, Ohio. Drill-chuck	388,987	Sept. 4	263	70	44	1123
McIntyre, James, Boston, Mass. Claphard-machine	375,887	Jan. 3	212	58	42	45
McIntyre, James, assignor of one-half to J. A. Stetson, Boston, Mass. Ship's keelson	393,713	Nov. 27	2262	593	45	1060
McIntyre, John B., Saltsburg, Pa. Ticket-holder for railway-cars	380,505	Apr. 3	298	86	43	60
McIntyre, John W., Philadelphia, Pa. Vise	378,893	Mar. 6	52	15	42	976

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette	
			Spec.	Dis.	Vol.	Page.
McIntyre, Malcomb F., Girard, Pa. Thill-coupling .....	385,867	July 10	802	212	44	164
McIntyre, Neil, Brooklyn, N. Y. Feed for stone-saws .....	376,251	Jan. 10	748	{ 198 199 }	42	153
McIntyre, Neil, assignor of one-half to W. Bradley & Sons, Brooklyn, N. Y. Sash-fastener ..	376,252	Jan. 10	749	199	42	154
McKague, Herbert S., McElhattan, Pa. Car-coupling .....	385,129	June 26	1937	495	43	1519
McKaig, Merwin. (See Muncaster, Walter J., assignor.) .....						
McKay, John W., Louisville, Ky. Machine for setting plants .....	390,500	Oct. 2	430	111	45	88
McKean, Dayton, assignor of five-eighths to J. D. Kaufman and C. Marks, Windom, Kans. } Corn-harvester .....	393,338	Nov. 20	1694	{ 447 448 }	45	939
McKee, George H., Cambridge, Mass. Comb-cleaning apparatus .....	379,588	Mar. 20	1070	284	42	1182
McKee, H. H., <i>et al.</i> (See McKee, Leander H., assignor.) .....						
McKee, John C., <i>et al.</i> (See Goodrich, Joseph, assignor.) .....						
McKee, John P., Wayne, Iowa. Dinner-pot .....	391,174	Oct. 16	1402	374	45	285
McKee, John R. (See Hollenberger, John A., assignor.) .....						
McKee, Leander H., Frankfort, assignor of one-half to H. H. McKee, Rome, and W. A. } Paige, Coeymans, N. Y. Locomotive head-light .....	379,539	Mar. 13	984	265	42	1159
McKee, Thomas W., Towanda, Pa. Car-coupling .....	376,412	Jan. 10	964	252	42	193
McKeen, Thomas L., Easton, Pa. Car-coupling .....	394,871	Dec. 18	1763	{ 457 458 }	45	1432
McKellar, Reuben N. (See Webb, Samuel J., assignor.) .....						
McKemmie, John. (See Dunham and McKemmie.) .....						
McKenna, John E., and A. M. Baker, St. Louis, Mo. Base-ball curver .....	385,816	July 10	721	188	44	148
McKenny, Samuel W., and F. G. Kirby, Burlington, N. J. Machine for soldering the ends } of tin cans .....	390,792	Oct. 9	827	{ 320 221 }	45	170
McKenzie, Alexander, Auburn, Ontario, Canada. Horse-collar .....	395,068	Dec. 25	2072	536	45	1500
McKenzie, George W., Van Port, Pa. Automatic valve or shut-off for gas-mains ..	375,700	Jan. 3	55	16	42	14
McKenzie, George W., Van Port, assignor to Beaver Manufacturing Company, Beaver } County, Pa. Automatic cut-off for gas-mains .....	391,597	Dec. 18	1301	341	45	1342
McKenzie, John, West Troy, N. Y. Railway-rail joint .....	390,881	Oct. 9	950	550	45	192
McKenzie, Joseph C. (See Knapp, McKenzie, and Humphrey.) .....						
McKeown, Hugh J., Newport, Ky. Friction-drum .....	385,191	June 26	2026	518	43	1536
McKercher, George. (See Pierce and McKercher.) .....						
McKernan, Dennis D., assignor to Steel Key Chain Company, Chicago, Ill. Machine for } uniting chain-links .....	394,199	Dec. 11	679	182	45	1210
McKim, David F., Cable City, Mont. Ter. Automatic regulator for the receivers of air- } compressors .....	375,761	Jan. 3	56	16	42	15
McKim, George W., Martin's Ferry, Ohio. Wire-nail machine .....	393,254	Nov. 20	1569	{ 411 412 }	45	915
McKinney, Charles B., Tarport, assignor of one-half to W. C. Walker, Bradford, Pa. Drill- } ing-jar .....	380,634	Apr. 3	487	137	43	99
McKinney, Finch, San Diego, Cal. Hay-press .....	382,822	May 15	1408	{ 369 370 }	43	800
McKinney, Robert, Detroit, assignor of two-thirds to N. H. Eckler and H. G. Sutton, Jack- } son, Mich. Preserving compound .....	393,714	Nov. 27	2273		45	1061
McKinney, Z. Taylor, Piedmont, S. C. Loom-shuttle relief mechanism .....	382,995	May 15	1647	431	43	846
McKinnon, Daniel H., Mooretown, Ontario, Canada. Tilting barrel-support .....	394,931	Dec. 18	1870	484	45	1451
McKinnon, James W., Newark, N. J. Ventilator .....	393,313	May 22	2142	567	43	851
McKinnon, Lachlan E., Buffalo, N. Y. Dash-board .....	391,420	Oct. 23	1758	464	45	356
McKinstry, William H., <i>et al.</i> (See Dennis, Andrew J., assignor.) .....						
McKittrick, David L., Baton Rouge, La. Lubricating composition .....	378,331	Feb. 21	1457		42	809
McKnight, Thomas B., Mount Pleasant, Iowa. Mechanical movement .....	382,101	May 1	333	89	43	575
McLachlan, Angus. (See Rowland, Hill, and McLachlan.) .....						
McLachlan, John C., assignor to A. Hoenigsberger, Chicago, Ill. Ditching-machine .....	380,128	Mar. 27	1835	{ 565 566 }	42	1352
McLane, Ebenezer, Zincite, Mo. Bed-plate and bearing for hoisting-drums .....	392,815	Nov. 13	970	243	45	784
McLane, John, Milford, N. H. Post-office box .....	393,632	Nov. 27	2160	571	45	1044
McLaren, Ellen C. (See McLaren, Josiah P., assignor.) .....						
McLaren, Francis J., New York, N. Y. Blow-pipe furnace .....	383,971	June 5	193	56	43	1157
McLaren, Henry, Leeds, county of York, England. Reducing-valve .....	393,020	Nov. 20	1214	323	45	850
McLaren, Henry, Leeds, county of York, England. Device for reducing the pressure of } liquids .....	393,021	Nov. 20	1246	323	45	850
McLaren, Josiah P., Cardigan Bridge, Prince Edward Island, Canada, assignor to E. C. } McLaren, Boston, Mass. Potato-digger .....	391,059	Oct. 16	1240	330	45	255
McLaughlin, Charles A. (See McLaughlin, Henry and C. A.) .....						
McLaughlin, Edgar A., assignor of one-half to H. J. Weller, Horseheads, N. Y. Selfact- } ing or automatic pressure-regulator .....	383,314	May 22	2143	545	43	951
McLaughlin, Edward, Philadelphia, Pa. Trousers-stretcher .....	379,118	Mar. 6	376	106	42	1036
McLaughlin, Henry and C. A., Lebanon, Pa. Boiler for steam-heating .....	377,322	Jan. 31	1376	672	42	473
McLaughlin, James C., Kansas City, Mo. Electrical call system .....	386,597	July 24	1865	492	44	399
McLaughlin, James F., Philadelphia, Pa. Automatic electric spacing mechanism for type- } writers .....	379,406	Mar. 13	75	212	42	1120
McLaughlin, James F., Philadelphia, Pa. Electro-mechanical movement .....	379,802	Mar. 20	136	368	42	1246
McLaughlin, James F., Philadelphia, Pa. Electro-magnetic register .....	383,583	May 29	2550	674	43	1034
McLaughlin, James F., Philadelphia, Pa. Electro-mechanical type-writer .....	385,565	July 3	351	91	42	70
McLaughlin, James F., Philadelphia, Pa. Electrical type-writer .....	386,646	July 24	1929	{ 510 511 }	44	402
McLaughlin, James F., Philadelphia, Pa. Electrical type-writer .....	388,140	Aug. 21	1462	{ 392 393 }	44	868
McLaughlin, James F., Philadelphia, Pa. Electrical type-writer .....	388,141	Aug. 21	1468	{ 394 394 }	44	869
McLaughlin, James F., Philadelphia, Pa. Electrical type-writer .....	388,142	Aug. 21	1474	{ 395 395 }	44	870
McLaughlin, James F., Philadelphia, Pa. Electrical type writer .....	388,143	Aug. 21	1481	395	44	871
McLaughlin, James F., Philadelphia, Pa. Electric bell .....	393,998	Dec. 4	384	104	45	1145
McLaughlin, James T. W., assignor of one-half to L. Crull, Harrisburg, Pa. Step-ladder } with jump-shelf .....	382,102	May 1	339	89	43	575
McLean, Joseph, Rockville, Conn. Pocket-rule .....	377,894	Mar. 6	53	15	42	976
McLean, William, Goulburn, New South Wales. Ore-pulverizer .....	377,167	Jan. 31	2089	550	42	432
McLellan, Donald. (See Quinn and McLellan.) .....						
McLellan, Robert A., San Francisco, Cal. Cable-grip .....	390,882	Oct. 9	951	251	45	193
McLeod, Angus G., Hallock, Minn. Hame-fastener .....	382,103	May 1	340	90	43	576
McLeod, Charles G., Worcester, Mass. Machine for sawing railway-rails .....	393,916	Dec. 4	271	74	45	1123
McLeod, Roderick F., <i>et al.</i> (See Young, Charles H., assignor.) .....						
McLoughlin, John E., Utica, N. Y. Adjustable block for stretching hats .....	388,497	Aug. 28	2002	538	44	978

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
McMackin, William E. (See Crow and McMackin.)						
McMackin, William E., and W. B. Crow, Milburton, Tenn. Car-platform.....	389,550	Sept. 18	1138	299	44	1303
McMahon, Francis, Somerville, Mass. Steam-engine governor.....	377,168	Jan. 31	2090	{ 550 551 }	42	432
McMahon, Frank, A. C. Sharp, and C. E. Liles, Darlington, Indian Ter. Pitman attachment for mowing-machines.....	382,891	May 15	1502	393	41	820
McMahon, George P., Pawtucket, R. I. Leather-working machine.....	393,845	Dec. 4	164	44	45	1103
McMahon, James H., New Milford, and D. D. Mangum, Lanesville, Conn.; said Mangum assignor to said McMahon. Wire-stretcher.....	381,569	Apr. 24	1912	504	43	407
McMahon, John. (See Solon and McMahon.)						
McMahon, Patrick J., New Orleans, La. Motor-car.....	379,119	Mar. 6	377	107	42	1036
McMannis, Mortimer. (See La Borde, James F., assignor.)						
McManus, Abouzo, New Britain, Conn. Spur.....	384,774	June 19	1395	364	43	1104
McManus, John E., et al. (See Woodruff, Theodore T., assignor.)						
McManus, William N., New York, N. Y. Toy race-track.....	391,262	Oct. 16	1519	403	45	307
McMaster, J. S. (See Benker, Christian, assignor.)						
McMaster, John W., Sparta, Ill. Wagon-rack.....	378,703	Feb. 28	2027	{ 535 536 }	42	915
McMeen, James M., Danville, Ill. Folding fire-blower.....	388,571	Aug. 28	2105	565	44	998
McMeen, John D., Mount Vernon, Ill. Insect-trap.....	393,778	Dec. 4	63	18	45	1084
McMillan, Benjamin F., et al. (See Link, William D., assignor.)						
McMillan, George J., Teachey's, N. C. Animal-trap.....	385,421	July 3	133	35	44	28
McMillan, John L. (See Wood and McMillan.)						
McMillen, William J., et al. (See Appleby, Joseph, assignor.)						
McMillin, Robert, Pittsburg, Pa. Truck.....	394,385	Dec. 11	972	256	45	1267
McMillion, Hiram S., assignor of one-half to E. M. Harper, Falling Springs, W. Va. Corn-planter.....	385,817	July 10	722	188	44	148
McMorris, James, Thorp's Spring, Tex. Horse-detacher.....	381,712	Apr. 21	2121	554	43	418
McMullin, Joseph, assignor of one-half to G. W. Julian, Casey, Iowa. Car-coupling.....	377,631	Feb. 7	421	107	42	575
McMullin, William, Chicago, Ill. Fire-escape.....	384,376	June 12	813	211	43	1283
McMurray, John. (See Johnson, William H., assignor.)						
McMurray, Louis, Baltimore, Md. Propelling apparatus for vessels.....	391,481	Oct. 23	1824	488	45	374
McMurray, Louis, Baltimore, Md. Apparatus for cleaning corn or other grain.....	391,482	Oct. 23	1825	{ 488 489 }	45	375
McMurray, Louis, Baltimore, Md. Apparatus for electroplating.....	393,170	Nov. 20	1444	377	45	889
McMurry, Samuel, Alameda, assignor of one-half to E. Donnelly, San Francisco, Cal. Hydrocarbon-burner.....	388,988	Sept. 4	361	70	44	1123
McNab, Francis L., Sturgeon Bay, Ontario, Canada. Car-coupling.....	385,868	July 19	803	213	44	164
McNair, Milton H., Meadville, Pa. Tube-expander.....	392,280	Nov. 6	151	39	45	622
McNairy, Brandon. (See Wilmoth and McNairy.)						
McNall, Frank E., Minneapolis, Minn. Cistern-cleaner.....	385,809	July 10	805	213	44	164
McNally, Andrew. (See Steele, James W., assignor.)						
McNamara, Timothy E., Cincinnati, Ohio. Safety-pocket for money, &c.....	392,682	Nov. 13	743	{ 188 189 }	45	743
McNamee, John C., Hope, Kans. Liquid-meter.....	384,265	June 12	638	171	43	1252
McNaught, John and W., Jr., Rochdale, county of Lancaster, England. Machinery for scouring and washing wool.....	385,761	July 10	648	{ 168 169 170 }	44	134
McNaught, William, Jr. (See McNaught, John and W., Jr.)						
McNaughton, James, and A. Bardsley, Brainerd, Minn. Oil cup.....	377,435	Feb. 7	136	30	42	520
McNaughton, John. (See Howden, William N., assignor.)						
McNaughton, John G. (See Dellinger and McNaughton.)						
McNeal, Andrew H., and W. A. Stineruck, Burlington, N. J. Pipe-molding apparatus.....	383,531	May 29	2491	657	43	1022
McNeal, Luther C., Rochester, N. Y. Fruit-knife.....	379,338	Mar. 13	546	153	42	1075
McNeal, Luther C., Rochester, N. Y. Button-hole scissors.....	382,996	May 15	1648	431	43	847
McNeill, Alexander, Valley Mills, Tex. Show-case.....	386,550	July 24	1808	{ 477 478 }	44	377
McNeill, Alexander, Valley Mills, Tex. Show-case.....	391,630	Oct. 23	2024	547	45	417
McNeill, Hobart W., Oskaloosa, Iowa. Cable-railway car.....	379,407	Mar. 13	787	212	42	1121
McNeill, Hobart W., Oskaloosa, Iowa, assignor to Rasmussen Cable Company, Chicago, Ill. Cable-railway apparatus.....	390,090	Oct. 9	684	183	45	144
McNiece, Thomas B., Mansfield, Ohio. Lubricator.....	387,094	July 31	2009	685	44	538
McNitt, Archibald E., Hartford, Mich. Windmill.....	377,491	Feb. 7	214	51	42	536
McNorton, William J., Allegheny, Pa. Incandescent gas-burner.....	389,588	Sept. 18	1129	314	44	1313
McNutt, George L., Fremont, Ohio. Hay-loader.....	390,090	Sept. 25	1765	523	44	1473
McNutt, Lindsay B., Ashtabula, Ohio, assignor to Muncie Skewer Company, Muncie, Ind. Machine for pointing skewers.....	378,934	Mar. 6	106	30, 31	42	987
McPartland, James H. (See Campbell and McPartland.)						
McPhaill, Robert. (See Anderson and McPhaill.)						
McPherson, Ebenezer, M. (See Griffin, Caleb H., assignor.)						
McPherson, Ebenezer M., Boston, Mass. Dress-form.....	383,535	May 29	2492	657	43	1022
McPherson, Ephram. (See Lane and McPherson, assignors.)						
McPherson, Henry, assignor to Sweet & Clark Manufacturing Company, Troy, N. Y. Snap-hook.....	384,992	June 26	1714	445	43	1473
McPherson, John, Wellsville, N. Y. Device for moistening tobacco.....	387,095	July 31	2011	686	44	538
McPherson, John W., Moline, Ill. Brake-lever.....	379,969	Mar. 27	1658	442	42	1306
McPherson, Nelson. (See Lane and McPherson.)						
McPherson, Wallace, Texarkana, Tex. Drier.....	387,243	Aug. 7	65	16	44	584
McPherson, Wallace, Texarkana, Tex. Drier.....	387,652	Aug. 14	693	178	44	712
McQuaid, John H., Farmers Valley, Pa. Gas-burner.....	391,175	Oct. 16	1403	374	45	285
McQuaide, John F., Somerville, assignor to J. W. Tufts, Medford, Mass. Tumbler-washer.....	386,256	July 17	1371	{ 361 362 }	44	282
McQueen, Fletcher J., assignor of one-half to J. N. Strobhar, Ocala, Fla. Car-coupling.....	379,177	Mar. 6	443	125	42	1050
McQuide, James, Lansingburg, N. Y. Paint-brush.....	376,540	Jan. 17	1153	303	42	236
McQuillan, Arthur. (See Holt and McQuillan.)						
McRae, Daniel M., Bruegerhoff, assignor of one-half to W. H. Tobin, Travis County, Tex. Railway-rail fastening.....	393,515	Nov. 27	1971	514	45	1002
McRae, Donald, Umatilla County, Ore. Grain or hay stacker.....	385,470	July 3	201	53, 54	44	41
McRae, John B., Mount Holly, Ark. Saw-mill dog.....	388,969	Sept. 4	265	70	44	1124
McRobert, John W., Mason, Mich. Wagon-jack.....	392,623	Nov. 13	665	166	45	728
McShane, & Co., Henry. (See Schmidt, Charles R., assignor.)						
McSherry, & Co., D. E. (See Brown, Owen D., assignor.)						
McSweeney, Terrence, Allegheny, Pa. Metallurgical furnace.....	391,920	Oct. 30	2535	686	45	528
McSweeney, Terrence, Allegheny, Pa. Pipe-joint.....	393,381	Nov. 27	1763	467	45	961

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
McSweeney, Terrence, Allegheny, assignor of one-half to T. A. Gillespie, Pittsburg, Pa. Composition for surfacing structural articles	381,882	Apr. 24	2380		43	497
McTammany, John, Worcester, Mass. Mechanical musical instrument	390,385	Oct. 2	266	71	45	57
McTammany, John, Worcester, Mass. Mechanical musical instrument	390,386	Oct. 2	269	71	45	57
McTighe, James J., Pittsburg, Pa. Filter	391,328	Oct. 16	1609	426	45	324
McTighe, James J., Freeport, Pa. Arc-light carbon	392,520	Nov. 6	502		45	690
McTighe, Thomas J. (See McElroy and McTighe.)						
McTighe, Thomas J. (See Nicholson, McElroy, and McTighe.)						
McTighe, Thomas J., New York, N. Y. Directory-indicator for buildings, &c.	382,997	May 15	1650	431	43	847
McTyne, William C., Hatcherhubbree, Ala. Manure-distributor	379,654	Mar. 20	1161	307	42	1200
Meacham, E. F. (See Hoagland, John B., assignor.)						
Meachem, Thomas W. (See Latulip, Frederick, assignor.)						
Mead, Albert G., Boston, Mass., assignor to International Fastening Company, Portland, Me. Machine for rolling flanged eyelets	383,403	May 22	2272	604	43	974
Mead, Charles L., New York, N. Y., assignor to Stanley Rule and Level Company, New Britain, Conn. Chisel-gage	380,811	Apr. 10	762	209	43	160
Mead, Charles L., New York, N. Y., and J. A. Traut, New Britain, Conn. Bench-plane	378,704	Feb. 28	2029	536	42	915
Mead, Charles R., et al. (See Taber, Loyal C., assignor.)						
Mead, Edward C., Elkhart, Ind. Wrench	389,400	Sept. 11	912	238	44	1254
Mead, Edwin D., Shortsville, N. Y. Hay or grain elevator	377,492	Feb. 7	215	52	42	536
Mead, Henry W., Quincy, Ill. Brick-machine	386,333	July 17	1469	389	44	300
Mead Regenerative Gas Burner Company. (See Mead, William S., assignor.) (Reissue.)						
Mead, Theodore H., et al. (See Crowell, Luther C., assignor.)						
Mead, Theodore H., et al. (See Hoe and Weckerlin.)						
Mead, William S., Philadelphia, Pa., assignor to Mead Regenerative Gas Burner Company, New York, N. Y. Regenerative gas-burner. (Reissue)	10,899	Feb. 7	570	147	42	603
Mealey, John, Fairville, New Brunswick, Canada. Machine for sharpening and gunning saws	391,176	Oct. 16	1404	375	45	285
Mears, Camden and J. W., Bloomsburg, Pa. Washing-machine	380,445	Apr. 3	204	55, 56	43	42
Mears, John W. (See Mears, Camden and J. W.)						
Meats, John T., Taunton, Mass. Support for spinning spindles	394,200	Dec. 11	681	183	45	1210
Meats, John T., assignor to Mason Machine Works, Taunton, Mass. Loom for weaving pockets, &c.	379,484	Mar. 13	904	244	42	1144
Mecklenburg, William. (See Koesting and Mecklenburg.)						
Meckley, John F., et al. (See Bostian, Charles P., assignor.)						
Medbury, Charles, Providence, R. I. Automatic valve for water-service pipes	386,752	July 21	2080	547	41	429
Medden, Edwin, assignor to Silsby Manufacturing Company, Seneca Falls, N. Y. Heater for steam fire-engines	376,330	Jan. 10	856	225	42	173
Medill, Thomas J., Jr., et al. (See Skiles, Robert I., assignor.)						
Medrick, Henry D., Port Jervis, N. Y. Water-cock	376,253	Jan. 10	750	199	42	154
Meech, Alfred H. (See Meech, Frank B. and A. H.)						
Meech, Frank B. and A. H., Cleveland, Ohio. Stone and ore crushing and pulverizing machine	385,638	July 3	461	119 120	44	90
Meehan, David C., Columbus, Ohio. Display-rack for tiles	379,589	Mar. 20	1071	285	42	1183
Meehao, Michael, Boston, Mass. Manufacturing conduits and machine therefor	376,748	Jan. 21	1479	389 390	42	306
Meehan, Michael, Boston, Mass. Conduit	384,860	June 19	1530	398	43	1428
Meehan, Michael, Boston, Mass. Machine for the manufacture of conduits	388,295	Aug. 21	1704	455	44	916
Meehan, Patrick W., Providence, R. I. Valve	381,056	June 5	320	91	43	1182
Meek, Adam W., assignor of one-half to D. E. Meek, Hudson, Ind. Sliding gate	376,717	Jan. 17	1431	376	42	288
Meek, Donald E. (See Meek, Adam W., assignor.)						
Meeze, Arthur G., Redhill, county of Surrey, England. Apparatus for the manufacture of gas	382,371	May 8	742	187 188	43	659
Meeze, Arthur G., Redhill, county of Surrey, England. Manufacturing gas from oil and steam	382,372	May 8	746	188	43	660
Meeze, Arthur G., Redhill, county of Surrey, England. Making coal-gas	382,373	May 8	747	189	43	661
Meeze, Arthur G., Redhill, county of Surrey, England. Manufacturing gas	382,374	May 8	749	189	43	661
Meeze, Arthur G., Redhill, county of Surrey, England. Apparatus for the manufacture of gas	382,375	May 8	751	189	43	661
Megee, Andrew J., assignor to Miller Megee Company, Philadelphia, Pa. Binding of books	383,315	May 22	2144	565 566	43	952
Megill, Edward L., Brooklyn, N. Y. Gage-pin for printing-presses	377,949	Feb. 14	924	239	42	688
Megill, Edward L., Brooklyn, N. Y. Gage-pin for printing-presses	377,950	Feb. 14	925	239	42	688
Megill, Edward L., Brooklyn, N. Y. Gage-pin for printing-presses	377,951	Feb. 14	926	240	42	688
Megill, Edward L., Brooklyn, N. Y. Feed-gage for printing-presses	373,480	Nov. 27	1917	501	45	990
Mehl, John, Jr., Jersey City, N. J. Hand-bag	384,377	June 12	814	211	43	1283
Mehl, Robert H., and R. Knott, Brooklyn, N. Y. Candlestick	380,506	Apr. 3	300	87	43	61
Mehreo, Jacob F. (See Barrett and Mehren.)						
Mehring, Theodor H., Niobrara, Nebr. Corn-husker	387,795	Aug. 14	895	231	44	751
Mehring, Theodor H., Niobrara, Nebr. Corn-husker	387,985	Aug. 14	1193	323	44	809
Meier, Joseph B., Philadelphia, Pa. Case for cigars, &c.	393,255	Nov. 20	1573	412	45	916
Meikel, Charles W. (See Miller, Harrison S., assignor.)						
Mejners & Schuette. (See Rohde, Peter W., assignor.)						
Meise, Edward, Pittsburg, assignor of one-half to G. Kaufman, Cresson, Pa. Seal-lock	380,446	Apr. 3	208	56	43	42
Meissel, Wilhelm, Bremerhaven, Germany. Rocket	379,970	Mar. 27	1660	442 443	42	1306
Meisselbach, August F. and W., Newark, N. J. Fishing-rod holder	388,433	Aug. 28	1916	512	44	961
Meisselbach, William. (See Meisselbach, August F. and W.)						
Meister, Charles, assignor to F. J. Anspach, Philadelphia, Pa. Tremolo for cornets	377,493	Feb. 7	219	53	42	537
Mexell, Henry J., Pottstown, Pa. Date-indicator	379,972	Sept. 25	1782	473	44	1436
Melbourne, William A., Swanwick, Ill. Telegraph key and instrument	378,332	Feb. 21	1188	389	43	800
Melburn, Lafayette A., Denver, Colo. Whiffle-tree-coupling	386,257	July 17	1375	362	44	282
Melchior, Edward, Chicago, Ill. Barber's chair	380,909	Apr. 10	912	245	43	187
Melchior, Fred, assignor to himself and H. Melchior, Chicago, Ill. Barber's chair	388,211	Aug. 21	1574	419	44	889
Melchior, Hugo. (See Melchior, Fred, assignor.)						
Melendy, Bryant H., Battle Creek, Mich. Dough-kneading machine	381,631	Apr. 24	2003	525	43	425
Melhorn, Lewis M. (See Neiman and Melhorn.)						
Melich, John T., Minneapolis, Minn. Flour-packer	389,662	Sept. 18	1323	346	44	1336
Melkorsman, Fredrick, St. Charles, Mo. Centrifugal grain-drying machine	383,747	May 29	2786	733	43	1084
Melkorsman, Fredrick, St. Charles, Mo. Grain-separator	384,861	June 19	1531	398	43	1428
Melkorsman, Fredrick, St. Charles, Mo. Hulling, cleaning, and separating grain	385,870	July 10	806	213 214	44	164
Mellert, Albert H., assignor to Mellert Foundry and Machine Company, (limited), Reading, Pa. Fire-hydrant	381,940	May 1	59	15	43	526



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Mellert Foundry and Machine Company. (See Mellert, Albert H., assignor.)						
Mellet, Lemuel, Newton, Mass., assignor to Pulsion Telephone Company, Concord, N. H.	392,816	Nov. 13	951	{ 243 241 }	45	784
Mechanical telephone						
Mellor, Benjamin F., et al. (See Adamson, James H., assignor.)						
Mellor, James F., et al. (See Adamson, James H., assignor.)						
Melloy, James B., Philadelphia, Pa. Body wire and handle for dish-pans	377,632	Feb. 7	422	107	42	575
Melone, Thomas L., Chillicothe, Ohio. Ruffling attachment for sewing-machines	378,705	Feb. 23	2030	536	42	916
Melone, Thomas L., Chillicothe, Ohio. Hemstitching attachment for sewing-machines	378,706	Feb. 28	2032	537	42	916
Melone, Thomas L., Chillicothe, Ohio. Sewing-machine	383,748	May 29	2787	{ 733 734 }	43	1084
Meloon, Ivan L., and P. S. Whiting; said Whiting assignor of one-half to A. L. Richmond, Lima, Ohio. Device for automatically stopping trains	395,163	Dec. 25	2239	575	45	1530
Melotte, George W., Ithaca, N. Y. Blow-pipe	394,657	Dec. 18	1401	365	45	1359
Melson, George. (See Pickard and Melson.)						
Melson, George, and R. H. Harper, Eugene City, Oreg. Harrow	386,598	July 24	1866	493	41	389
Melton, Isham, Mount Holly, Ark. Desk	380,045	Mar. 27	1774	474	42	1328
Melton, Robert C. (See Dearing and Melton.)						
Melvin, David N., Linoleumville, N. Y. Floor-cloth	387,244	Aug. 7	66	16	44	584
Melvin, Francis J., assignor of one-half to E. A. Gould, Owosso, Mich. Road-cart	391,060	Oct. 16	1242	331	45	255
Melvin, William J., Boston, Mass. Stool	388,066	Aug. 21	1314	356	44	841
Melzer, Christian F. T., assignor of two-thirds to E. Martin, Detroit, Mich. Cigar-mold	387,796	Aug. 14	896	232	44	751
Menche, John A. (See Stille, Theodore J. and O. Q., assignors.)						
Mendelson, Sollo, Los Angeles, Cal. Pickpocket-proof pocket-receptacle	379,319	Mar. 13	664	179	42	1097
Mendenhall, Clinton, Martinsburg, W. Va. Cultivator	394,283	Dec. 11	817	216	45	1237
Mendham, William. (See Chambers and Mendham.)						
Mendham, William, Philadelphia, Pa. Pasting and folding machine	392,048	Oct. 30	2635	{ 716 717 718 }	45	548
Meneely, Charles D., Albany, assignor to Meneely Hardware Company, West Troy, N. Y. Roller-bearing for axles and shafts	389,819	Sept. 18	1540	408	44	1381
Meneely Hardware Company. (See Meneely, Charles D., assignor.)						
Mengel, George, Davenport, Iowa. Pole-tip	390,883	Oct. 9	953	251	45	193
Menges, Philipp, New York, N. Y. Gas-burner	377,494	Feb. 7	221	53	42	538
Mengis, Morris C., New York, N. Y. Electro-magnetic parcel-carrier	384,775	June 19	1396	365	43	1404
Menke, Robert W. and W., Sanborn, Dak. Ter. Belt-carrier tightener	380,400	Apr. 3	138	41	43	99
Menke, William. (See Menke, Robert W. and W.)						
Mense, Joseph, Bordeaux, France. Lubricator	394,497	Dec. 11	1120	291	45	1294
Mentzel, Henry D., Baltimore, Md. Grease-cup	381,157	Apr. 17	1307	349	43	271
Mentzer, Jonathan R., assignor to W. R. Fox, Grand Rapids, Mich. Dado cutter	381,209	June 5	546	150	43	1227
Menzenbauer, Friedrich, Jersey City, N. J. Tremolo attachment for cornets	377,860	Feb. 14	787	201	42	659
Menzies, William, Paterson, N. J. Machine for stripping jute and other fibrous plants	391,284	Dec. 11	819	{ 217 218 }	45	1237
Mercer, Andrew, Brooklyn, N. Y. Sectional steam-boiler	377,265	Jan. 31	2233	590	42	457
Mercer, Anna, et al. (See Lippitt, Elihu, assignor.)						
Mercer, C. Alexander, Grand Haven, Mich. Snow-scraper	389,092	Sept. 4	415	109	44	1152
Mercer, William F. (See Kaufman and Mercer.)						
Merchants Roll Paper Primer and Cutter Company. (See Wilson, Homer T., assignor.)						
Merkel, William C., New York, N. Y. Sash-balance	384,459	June 12	921	239	43	1304
Merkel, William C., New York, N. Y. Sash-balance	395,246	Dec. 25	2372	607	45	1553
Mergenthaler, Ottmar, Baltimore, Md. Mechanism for electrically controlling stamping-machines, &c.	376,541	Jan. 17	1154	{ 303 304 572 573 574 575 576 568 569 570 571 572 }	42	236
Mergenthaler, Ottmar, Baltimore, Md. Machine for producing type-bars	378,798	Feb. 28	2157	{ 574 575 576 568 569 570 571 572 }	42	940
Mergenthaler, Ottmar, Baltimore, Md., assignor to National Typographic Company, of West Virginia. Machine for forming type-bars	378,797	Feb. 28	2149	{ 570 571 572 }	42	938
Mergenthaler, Ottmar, Baltimore, Md., assignor to National Typographic Company, of West Virginia. Matrix-delivering mechanism	392,446	Nov. 6	403	100	45	670
Mergenthaler, Ottmar, Baltimore, Md., assignor to National Typographic Company, of West Virginia. Type-bar	393,846	Dec. 4	165	44	45	1103
Meriden Bronze Company. (See Peck, Eugene H., assignor.)						
Meriden Bronze Company. (See Peck, Eugene H., assignor.)						
Merideth, John R., Aurora, Ill. Wire-stretcher	377,169	Jan. 31	2091	551	42	432
Merithew, Zachaeus W., assignor of one-half to L. F. Gage, Grand View, Ind. Fruit-drier	382,617	May 8	1124	{ 289 290 }	43	734
Merklen, Valentin, New York, N. Y. Lathe for turning wooden spirals	390,884	Oct. 9	954	251	45	193
Mermod Frères. (See Campiche, Louis, assignor.)						
Merralls, William A., Kansas City, Mo. Gold-separator	391,421	Oct. 23	1739	464	45	356
Merrell, Fredus R., assignor to Thomas & Merrell, Versailles, Ohio. Carriage-top	390,387	Oct. 2	272	72	45	58
Merriam, Frederick W., North Adams, Mass. Fire-place grate	392,817	Nov. 13	953	{ 244 245 }	45	785
Merriam, J. Gilbert. (See Hammond and Merriam.)						
Merriam, Joseph, Middletown, Conn. Clasp	385,192	June 26	2027	519	43	1537
Merriam, Nelson C., assignor to Foster, Merriam & Company, Meriden, Conn. Caster	391,631	Oct. 23	2025	548	45	417
Merrick, Frank W., Somerville, Mass. Sewing-machine	388,897	Sept. 4	135	36	41	1098
Merrick, Timothy, et al. (See Blackburn, Frederick, assignor.)						
Merrill, Arthur H., assignor of one-half to A. C. Dunham, Hartford, Conn. Turn-up bed	380,046	Mar. 27	1775	475	42	1328
Merrill, Charles L., Indianapolis, Ind. Machine for cutting veneers	381,057	June 5	322	91, 92	43	1182
Merrill & Co., S. K. (See Bugbee, George C., assignor.)						
Merrill, David E., and J. C. Thomas, Jamestown, N. Y. Washing-machine	390,885	Oct. 9	955	252	45	194
Merrill, G. Lewis, Syracuse, N. Y. Machine for cutting green corn from the cob	385,871	July 10	809	214	44	165
Merrill, Gains L., Syracuse, N. Y. Preserving apparatus	391,907	Oct. 30	2230	637	45	508
Merrill, George. (See Smith, Thomas J., assignor.)						
Merrill, Henry W. (See Steiner, Henry W., assignor.)						
Merrill, Leonard. (See Atwood, La Motte C., assignor.)						
Merrill, William, et al. (See Gregg, John A., assignor.)						
Merrill, William, assignor of one-half to S. S. Mitts, East Saginaw, Mich. Machine for cutting wood	384,704	June 19	1303	340	43	1385
Merrill, William T., and J. Laughton, Milton, Fla. Saw-swaging device	393,256	Nov. 20	1571	412	45	916

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. s.	Vol.	Page.
Merriman, Alanson H., Meriden, Conn. Locking device for clutch mechanisms.....	390,883	Oct. 9	956	252	45	194
Merriman, Seymour V., Syracuse, N. Y. Door.....	385,566	July 3	355	92	44	71
Merriss, John, and A. S. Muncey, Shaanock, R. I. Nut-lock.....	384,378	June 12	815	212	43	1283
Merrithew, Levi A., Stockton, Me. Shoe or slipper.....	386,840	July 31	2251	592	44	469
Merritt, Charles H. (See Newman, Samuel T., assignor.)						
Merritt, Edward. (See Tyler and Merritt.)						
Merritt, Edward, deceased; E. Crocker and C. W. Sumner, Brockton, and C. D. Nash, Whitman, Mass., administrators and assignors to American Heeling Company, of Maine. Heel-nailing machine.....	385,748	July 10	626	164	44	130
Merritt, Edward, deceased; E. Crocker and C. W. Sumner, Brockton, and C. D. Nash, Whitman, Mass., administrators of said E. Merritt, and assignors to American Heeling Machine Company, of Maine. Manufacture of nail-dies for heeling-machines.....	388,535	Aug. 28	2053	552	44	988
Merritt, Henry W., Somerville, Mass. Stove-grate.....	382,543	May 8	1013	258	43	712
Merritt, Jacob. (See Harkins, James S., assignor.)						
Merritt, Jesse T., Fayetteville, Tenn. Tug-buckle.....	391,545	Oct. 23	1913	514	45	393
Merritt, Marcus M., trustee. (See Robinson, Samuel H., assignor.)						
Merritt, Mortimer G., Springfield, Mass., assignor to A. H. and G. B. Noble, New Milford, Conn. Making wood type.....	387,527	Aug. 7	486	127	44	668
Merritt, Samuel F., Springfield, Mass. Machine for cutting solder for jewelers' use.....	394,201	Dec. 11	682	183	45	1210
Morrow, Joseph M., Morrow, Conn. Frictional driving mechanism.....	392,818	Nov. 13	955	245	45	785
Morrow, Joseph M., Morrow, Conn. Machine for overstretching the edges of fabrics.....	394,782	Dec. 18	1613	423	45	1404
Morrow, Joseph M., Morrow, Conn. Overseaming fabrics.....	394,783	Dec. 18	1618	424	45	1404
Mersereau, Edgar W., Brooklyn, N. Y. Insect-powder blower.....	388,702	Aug. 28	2399	618	44	1034
Mershon, George B., Philadelphia, Pa. Grate.....	393,999	Dec. 4	355	104	45	1145
Mervine, William M., et al. (See Gilbert, George H., assignor.)						
Mervin, Frank A., assignor to A. H. and G. B. Noble, New Milford, Conn. Button-lathe.....	376,447	Jan. 17	1028	269	42	212
Mescke, Ernst, Chicago, Ill. Locomotive journal-box.....	394,988	Dec. 25	1963	566	45	1478
Mesereau, Edgar W., Brooklyn, N. Y. Pan.....	383,652	May 29	2647	700	43	1056
Meserole, Abraham V., New York, N. Y. Secondary battery.....	381,941	May 1	61	15	43	726
Meserole, Abraham V., New York, N. Y. Galvanic battery.....	386,149	July 17	1204	321	44	251
Meserole, Abraham V., New York, N. Y. Galvanic battery.....	386,150	July 17	1207	321	44	252
Meserole, Abraham V., New York, N. Y. Galvanic battery.....	388,430	Aug. 28	1910	510	44	960
Mesick, Oliver E., Potter County, Dak. Ter. Hay and straw burner.....	377,208	Jan. 31	2148	568	42	443
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	385,762	July 10	652	170	44	135
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	385,763	July 10	653	170	44	135
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	385,764	July 10	653	170	44	135
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	385,765	July 10	654	171	44	135
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	385,766	July 10	654	171	44	135
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	385,767	July 10	654	171	44	135
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	385,768	July 10	655	171	44	136
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	386,151	July 17	1208	321	44	252
Mesker, Frank, and H. F. Edwards, St. Louis, Mo. Plate-metal column.....	386,152	July 17	1209	322	44	252
Mesner, Leonard J., Buffalo, N. Y. Fire-escape.....	377,766	Feb. 14	656	164	42	635
Mess, Andrew, Kilbourn City, Wis. Medical injector.....	391,546	Oct. 23	1914	515	45	394
Messer, Louis, New York, N. Y. Frame for pocket-books, satchels, &c.....	385,639	July 3	463	120	44	90
Messinger, William T., Cambridge, Mass. Injector.....	390,031	Sept. 25	1862	494	44	1451
Messinger, William T., Cambridge, Mass., assignor to G. T. Power, Chicago, Ill. Combined pipe-coupling and check valve or chamber.....	383,428	May 22	2314	613	43	982
Meston, Alexander W., St. Louis, Mo. Armature for dynamo-electric machines.....	387,432	Aug. 7	338	87.88	44	638
Meston, John J., and N. S. Dygert, Portland, Oreg. Binding books.....	379,874	Mar. 20	1520	400	42	1270
Metcalf, George A., Malden, Mass. Seat for street-cars.....	392,876	Nov. 13	1031	264	45	801
Metcalf, George A., Woonsocket, R. I., assignor to A. Welch and J. Gilbert, Blackstone, Mass., J. J. Hulbert, H. S. Turner, G. M. Wells, and I. B. Philips, Woonsocket, R. I. Saddle for top rolls of spinning-machines.....	394,124	Dec. 4	563	152	45	1179
Metcalf, John G. F., et al. (See Waterman, Henry, assignor.)						
Metcalf, John S., Chicago, Ill. Switch-valve for elevator-spouts.....	389,589	Sept. 18	1200	314	44	1314
Metcalf, Robert. (See Edgerton and Metcalf.)						
Metcalf, Charles W., Hopkinsville, Ky. Screw-press.....	391,177	Oct. 16	1405	375	45	286
Meteor Despatch Company. (See Barri, Martin, assignor.)						
Meteor Despatch Company. (See Given, John L., assignor.)						
Meteor Despatch Company. (See Himman, William M., assignor.)						
Meteor Despatch Company. (See Perkins and Stuart, assignors.)						
Method, John S. (See Bradish, Almeda G., assignor.)						
Metzinger, William, Cleveland, Ohio. Vapor-burner.....	382,892	May 15	1503	394	43	820
Metzner, William C., Chicago, Ill. Stove-back.....	381,713	Apr. 24	2122	554	43	449
Mey, Frederick H. C., Buffalo, N. Y. Drive-chain.....	377,572	Feb. 7	329	84	42	558
Mey, Frederick H. C., Buffalo, N. Y. Elevator-boot.....	391,661	Oct. 16	1243	331	45	255
Meyer, August, Hamburg, Germany. Wick-trimmer.....	382,050	May 1	264	68.69	43	562
Meyer, Charles E. (See Perrin, Charles, assignor.)						
Meyer, Edward H., Louisville, Ky. Combined sofa and extension-table.....	382,898	Sept. 4	136	36.37	44	1098
Meyer, Florian, Paterson, N. J. Silk-spinning machine.....	386,715	July 24	2624	533	44	419
Meyer, Francis, Auburn, N. Y. Platen for holding sickle-sections during tempering.....	395,164	Dec. 25	2240	576	45	1530
Meyer, Fred W., Louisville, Ky. Sleigh.....	387,528	Aug. 7	488	128	44	668
Meyer, Fred W., Louisville, Ky. Sleigh.....	394,382	Dec. 11	966	254	45	1266
Meyer, Frederick, New York, N. Y. Stand for cleaning windows.....	386,927	July 31	2379	625	44	494
Meyer, Frederick A., Brooklyn, N. Y., assignor, by mesue assignments, to Composite Cell Company, of New Jersey. Plastic compound.....	393,382	Nov. 27	1764	.....	45	961
Meyer, George A., Brooklyn, N. Y. Check and pad protector.....	382,998	May 15	1651	431	43	847
Meyer, George A., Brooklyn, N. Y. Illuminated sign-box.....	393,779	Dec. 4	64	68	45	1085
Meyer, George W. L., and T. J. Sutphen, assignors of one-third to J. C. Ertel, Indianapolis, Ind. Baling-press.....	384,993	June 26	1715	445	43	1473
Meyer, John, Covington, Ky. Package carrier, register, and rack.....	392,128	Oct. 30	2769	752	45	574
Moyer, John E. P., Golden, Colo. Composition for developing ozonized oxygen.....	392,742	Nov. 13	833	.....	45	761
Meyer, Philip, assignor to J. L. Tobin, Newark, N. J. Bill and letter file.....	390,133	Sept. 25	2026	539	44	1485
Meyer, Theodore H., Jr., et al. (See Boore, Lewis, assignor.)						
Meyer, Wilhelm, New York, N. Y. Pressure-regulator.....	392,447	Nov. 6	405	100	45	670
Meyer, William C. (See French and Meyer.)						
Meyer, William C., Boston, Mass. Parallel-ruler and section-liner.....	378,142	Feb. 21	1204	313	42	748
Meyer, Willis A., Milwaukee, Wis. Buckle.....	389,710	Sept. 18	1395	365	44	1350
Meyerholz, Christian J., Santa Clara, Cal. Pruning-shears.....	392,049	Oct. 30	2638	718	45	548
Meyers, Andrew, Port Arthur, Ontario, Canada. Steam shoveling device.....	383,584	May 29	2552	674	43	1034

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Page.	Vol.	Page.
Meyers, Frank B., Fort Plains, N. Y. Hydrocarbon vaporizer and burner.....	386,258	July 17	1376	{ 362 363 }	44	282
Meyers, Fredrick, assignor to himself and J. H. Pratt, Jr., Brooklyn, N. Y. Button .....	388,212	Aug. 21	1575	420	44	889
Meyers, John S., St. Paul, Minn., assignor of one-half to G. Andrews, U. S. Army. Rail way-switch .....	389,315	Sept. 11	790	{ 201 202 }	44	1230
Meyers, Peter L., <i>et al.</i> (See Baltzley, Henry H., assignor.) .....						
Meyers, William G., Philadelphia, Pa., and F. E. Coward, Camden, N. J. Dynamo-armature .....	389,894	Sept. 25	1677	443	44	1414
Meylan, Charles H., New York, N. Y. Split-seconds stop-watch .....	383,749	May 29	2793	734	43	1085
Meylan, Charles H., New York, N. Y. Repeating-watch .....	390,501	Oct. 2	431	112	45	88
Meyrese, Ferdinand, St. Louis, Mo. Wick-raiser .....	387,529	Aug. 7	489	128	44	668
Meyrese, Ferdinand, St. Louis, Mo. Lamp .....	387,897	Aug. 14	1049	275	44	780
Meysenburg, Theodore A., St. Louis, Mo., and G. Westenholtz, Jeffersonville, Ill. Manu- facture of railway-rails .....	387,797	Aug. 14	897	212	44	751
Michael, Edward. (See Campbell, Samuel R., assignor.) .....						
Michael, Louis, Leavenworth, Kans. Lamp-shade .....	386,334	July 17	1470	390	44	300
Michales, Moses A., Allegheny, assignor to J. T. Moore, Pittsburg, Pa. Coal-drilling ap- paratus .....	389,524	Sept. 11	1088	{ 288 289 }	44	1286
Michaud, Charles E., St. Michel d'Yamaska, Quebec, Canada. Car-coupling .....	379,803	Mar. 20	1387	368	42	1246
Michaud, Gilbert, New York, N. Y. Water-closet .....	383,750	May 29	2795	735	43	1085
Michaud, Onesime E., St. Louis, Mo. Railway-passenger mileage-register .....	387,898	Aug. 14	1050	{ 275 276 277 278 }	44	781
Michaud, Onesime E., St. Louis, Mo. Railway-passenger mileage-register .....	390,246	Oct. 2	74	21	45	18
Michaut, Theodore, P. Conroy, and F. J. Wiest, Boulder City, Colo. Reducing ore .....	389,161	Sept. 4	549		41	1173
Micha, Paul P. F., Port Ortofa, Teneriffe, Canary Islands. Treating plants containing indican .....	388,703	Aug. 28	2300	618	44	1034
Michel, Bernard L. (See Frager and Michel.) .....						
Michel, Harry, assignor of one-half to E. Markham, Detroit, Mich. Chisel-holder for file- cutting machines .....	390,793	Oct. 9	828	221	45	170
Michels, Peter, and J. Kleinmer, Chicago, Ill. Sad-iron .....	385,365	July 3	42	13	44	11
Michigan Lubricator Company. (See Hay, Peter D., assignor.) .....						
Michigan Steve Company. (See Keep, William J., assignor.) .....						
Michigan Washing Machine Company. (See Glidden, Oscar F., assignor.) .....						
Mick, John E., Portsmouth, Ohio. Hydraulic motor .....	391,809	Oct. 30	2286	621	45	479
Middleton, Albert L., Fertile, Minn. Endless carrier .....	387,727	Aug. 14	809	209	44	733
Middleton Bros., <i>et al.</i> (See Mills, Frederick A., assignor.) .....						
Middleton, James F. (See Bliss and Middleton.) .....						
Middleton, Robert. (See Yeaton and Middleton.) .....						
Middleton, William A., <i>et al.</i> (See Boggs, Joseph O., assignor.) .....						
Midgley, Thomas. (See Emerson and Midgley.) .....						
Midgley, Thomas, assignor of one-half to J. E. Emerson, Beaver Falls, Pa. Wire belting .....	386,335	July 17	1471	390	44	301
Midgley, Thomas, assignor of one-half to J. E. Emerson, Beaver Falls, Pa. Manufacture of wire belting .....	386,336	July 17	1472	390	44	301
Mieg, Armand. (See Bischoff and Mieg.) .....						
Mieg, Armand, Leipsic, Saxony, and H. Bischoff, Dürkheim, Bavaria, Germany. Wolftram projectile .....	382,717	May 15	1269	332	43	771
Miehle, Robert, Chicago, Ill. Printing-machine .....	391,178	Oct. 16	1407	{ 375 376 }	45	286
Miessner, Paul M., Alton, Ill. Blind-stop .....	379,120	Mar. 6	378	107	42	1037
Mignault, Ensebe. (See Prichard and Mignault.) .....						
Mikel, William. (See Schindler and Mikel.) .....						
Mikich, Janko L., Dallas, Tex. Burglar-alarm .....	394,707	Dec. 18	1478	386	45	1375
Milam, John W., Frankfort, Ky. Cork-extractor .....	390,691	Oct. 9	686	184	45	145
Milam, Moses L., Caddo Mills, Tex. Horse hay-rake .....	387,530	Aug. 7	489	128	44	668
Milburn, George E., assignor of one-fourth to T. H. Reeves, Minneapolis, Minn. Trunk tray and follower .....	384,379	June 12	816	212	43	1284
Milburn Gin and Machine Company. (See McDermott, Patrick, assignor.) .....						
Mild, William, Hamilton, Ohio. Aerating attachment for chain-pumps .....	383,476	May 29	2394	637	43	1004
Miles, Alfred S., Brooklyn, N. Y. Smoke-conductor and ventilator for cars .....	391,263	Oct. 16	1521	404	45	302
Miles, Dudley W., Glen Elder, Kans. Plastering-machine .....	378,453	Feb. 28	1673	439	42	845
Miles, Edward, <i>et al.</i> (See Shoemaker, George W., assignor.) .....						
Miles, Enos P., Clay Centre, Kans. Windmill .....	383,477	May 29	2396	{ 637 638 }	43	1005
Miles, Gideon, St. Joseph, Mo. Whiffletree attachment .....	379,239	Mar. 13	547	153	42	1075
Miles, Harmon A., Boston, Mass. Cash-register .....	387,433	Aug. 7	342	88, 89	44	639
Miles, Harry S., and F. Haas, Philadelphia, Pa. Binding for blank-books .....	391,810	Oct. 30	2287	621	45	479
Miles, Jeremiah and S. W., Clay Centre, Kans. Attachment for plows .....	379,820	Sept. 18	1541	408	44	1381
Miles, Leonard E., Utica, N. Y. Shoe-maker's last .....	379,590	Mar. 20	1071	285	42	1183
Miles, Nelson A. (See Mills, Anson, assignor.) .....						
Miles, Purches, Brooklyn, N. Y. Fence .....	381,942	May 1	62	16	43	526
Miles, Purches, Brooklyn, N. Y. Fence-making machine .....	389,590	Sept. 18	1202	{ 314 315 316 }	44	1314
Miles, Purches, Brooklyn, N. Y. Wire hook .....	392,624	Nov. 13	665	166	45	728
Miles, Samuel W. (See Miles, Jeremiah and S. W.) .....						
Miles, Sylvester H., Rossville, Kans. Door-check .....	390,887	Oct. 9	957	252	45	194
Miles, William Y., <i>et al.</i> (See Egan, Charles E., assignor.) .....						
Milleil, William, St. Louis, Mo. Sad-iron .....	383,404	May 22	2274	604	43	975
Mill, Edward, assignor of one-third to W. H. Patterson, Cleveland, Ohio. Paper-testing machine .....	377,361	Jan. 31	2384	{ 688 689 }	42	484
Millar, Henry J., Utica, N. Y. Transportation-case for coiled lead pipe .....	384,327	June 12	733	194	43	1269
Millar, Henry J., Utica, N. Y. Combined reel and transportation-case .....	384,328	June 12	735	194	43	1269
Millar, Henry J., Utica, N. Y. Combined reel and transportation-case .....	384,329	June 12	737	194	43	1269
Millar, William A. (See Norton and Millar.) .....						
Millard, Augustus C., assignor to A. A. Allen, Coudersport, Pa. Combined clothes-rack and ironing-board .....	376,039	Jan. 3	448	117	42	88
Millard, William, Indianapolis, Ind. Lubricator .....	382,544	May 8	1014	259	43	742
Milledge, Stephen S., Carrollton, Ill. Device for heating vehicle-tires .....	393,022	Nov. 20	1247	323	45	850
Millen, George H., and E. Mousseau, assignors of one-third to E. B. Eddy Manufacturing Company, Hull, Quebec, Canada. Plug-box machine .....	390,888	Oct. 9	958	254	45	194
Millen, John M. (See Bennett and Millen.) .....						
Millen, Samuel R., Clarinda, Iowa. Bed .....	392,743	Nov. 13	831	{ 211 212 }	45	761

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Miller, Aaron, Brockport, N. Y. Automatic elevator-gate	388,431	Aug. 28	1912	511	44	960
Miller, Adolph. (See Stiebritz and Miller.)						
Miller, Alexander, New York, N. Y. Discharging apparatus for closed evaporating-pans.	375,946	Jan. 3	297	80	42	62
Miller, Allen T., Greenville, Ohio, assignor to G. F., W. N., and H. B. Kuhns. Tapping-machine	377,400	Feb. 7	49	14	42	505
Miller, Andrew, Guntersville, Ala. Gate	390,692	Oct. 9	687	183	45	145
Miller, Andrew C., and W. Butterfield, assignors to D. M. Osborne & Company, Auburn, N. Y. Frame for grain binding and harvesting machines	395,288	Dec. 25	2427	623 624 625	45	1564
Miller, Andrew J., Arion, Ohio. Separating-machine	384,058	June 5	325	92	43	1182
Miller, Asa R., Atlanta, Ga. Vehicle-wheel	391,377	Oct. 16	1682	415	45	337
Miller, Augusta L. (See James, Eli, assignor.)						
Miller, Basil, West Lafayette, Ohio. Fence	375,828	Jan. 3	137	40	42	32
Miller, Basil, West Lafayette, Ohio. Checkrein	384,460	June 12	922	239	43	1305
Miller, Carmi A., Spring Valley, Ill. Road-cart	387,311	Aug. 7	170	45	44	604
Miller, Carmi A., Spring Valley, Ill. Road-cart	377,312	Aug. 7	171	45	44	604
Miller, Charles, New York, N. Y. Horseshoe	388,213	Aug. 21	1576	420	44	889
Miller, Charles H. (See Geyser, Jacob, assignor.)						
Miller, Charles H., Erie, Pa. Gas-fuel burner	380,913	Apr. 10	918	246	43	188
Miller, Charles H., Erie, Pa. Sectional hood for gas and air fuel mixing chambers	381,632	Apr. 24	2004	526	43	425
Miller, Charles H., Union City, Ohio, assignor of one-half to I. S. Brandenburg, Peoria, Ill. Spirit-level and inclinometer	391,717	Oct. 23	2142	579	45	440
Miller, Charles R. (See Harrison, Jonathan W., assignor.)						
Miller & Company, Edward. (See Hammond and Merriam, assignors.)						
Miller & Company, Edward. (See Rhind, Frank, assignor.)						
Miller & Company, Edward. (See Rhind, Frank, assignor.) (Reissue.)						
Miller Company, William P. (See Austin, Robert A., assignor.)						
Miller, Darwin V., assignor to Weedsport Skirt and Dress Company, Weedsport, N. Y. Bustle	391,757	Oct. 23	2192	591	45	450
Miller, David E., Goshen, Ind. Tension device for fence-machiaes	392,684	Nov. 13	745	189	45	743
Miller, David O. (See Morrison, Wheeler M., assignor.)						
Miller, David W., Detroit, Mich. Butter-package	390,388	Oct. 2	273	72	45	58
Miller, E. (See Tourgée, Albion W., assignor.)						
Miller, Edward D. (See Burkard, Augustus, assignor.)						
Miller, Edward I., New York, N. Y., assignor of three-fourths to Schwartz & Graff, A. Ross, F. G. Rogers, and H. P. Schwartz, Philadelphia, Pa. Brush-making	391,378	Oct. 16	1683	445	45	338
Miller, Edward J., Cincinnati, Ohio. Car-coupler	389,525	Sept. 11	1089	289	44	1287
Miller, Edward S., Chicago, Ill. Photograph-exhibitor	394,498	Dec. 11	1122	291	45	1294
Miller, Emily J. (See Miller, James A., assignor.)						
Miller, Emory K., Louisville, Ky. Combined skirt and bustle	377,401	Feb. 7	52	14	42	506
Miller, Frank C., et al. (See Reece, Tolbert J., assignor.)						
Miller, Fred L., Chicago, Ill. Index	379,320	Mar. 13	665	179	42	1097
Miller, Frederick S. (See Porteous and Miller.)						
Miller, Fredrick C., Newport, Ky. Cigar-entter	390,134	Sept. 25	2027	540	44	1485
Miller, George A. (See Frey, John C., assignor.)						
Miller, George H. (See Niedlander, Allen O., assignor.)						
Miller, George N., Ashton, assignor to F. C. Austin, Chicago, Ill. Road-scraper	392,965	Nov. 13	1155	300 301	45	825
Miller, George N., Ashton, and O. E. Moats, assignors to F. C. Austin, Chicago, Ill. Road-scraper	383,751	May 29	2796	735	43	1085
Miller, George W., Watkins, N. Y. Combined ventilator and damper	377,633	Feb. 7	423	108	42	576
Miller, George W., Woonsocket, R. I. Machine for pressing fabrics	392,050	Oct. 30	2639	718 719	45	548
Miller, George W., Woonsocket, R. I. Cloth-stretching roll	392,051	Oct. 30	2641	719	45	549
Miller, Harrison S., assignor to C. W. Meikel, Indianapolis, Ind. Water-closet cistern	385,130	June 26	1910	495	43	1519
Miller, Harvey Y. (See Benedict and Miller.)						
Miller, Henry A., Ogallala, Neb. Horn-tip	379,077	Mar. 6	314	91	42	1025
Miller, Herbert P., London, county of Middlesex, England. Portable combination gas heating, cooking, and vaporizing apparatus	388,432	Aug. 28	1915	511	44	961
Miller, Herman, New York, N. Y. Sheet-metal can	377,495	Feb. 7	222	53	42	538
Miller, Ichabod H., Quincy, Ill. Street or station indicator for cars	386,486	July 24	1704	450	44	359
Miller, Jacob, Canton, Ohio. Sheaf-carrier	384,862	June 19	1532	398 399	43	1429
Miller, Jacob, Canton, Ohio. Harvester-frame	393,383	Nov. 27	1764	467 468	45	961
Miller, Jacob, and C. Hechstahl, Syracuse, N. Y. Cistern	385,872	July 10	812	215	44	165
Miller, Jacob, and M. J. Hogan, Canton, Ohio; said Hogan assignor to said Miller. Portable engine	384,922	June 19	1613	419 420	43	1444
Miller, James, Joliet, Ill. Feed-water heater and purifier	385,769	July 10	656	172	44	136
Miller, James, South Bend, Ind. Hose-coupling	387,899	Aug. 14	1056	278	44	782
Miller, James A., Buffalo Cross Roads, Pa. Gate	390,693	Oct. 9	688	183 184	45	145
Miller, James A., assignor to E. J. Miller, Chicago, Ill. Protector for car-heaters	390,182	Sept. 25	2099	559	44	1499
Miller, James E., Denver, Colo. Drawing-pen	394,262	Dec. 11	684	183	45	1210
Miller, James M., et al. (See MacFarlane, John, assignor.)						
Miller, James M., assignor of one-half to T. H. Cahill, Richmond, Va. Needle-threader	393,117	Nov. 20	1374	359	45	875
Miller, James S., Bristol, Wis. Car-coupling	390,389	Oct. 2	274	72	45	58
Miller, Jens N., San Francisco, Cal. Grain-harvester	394,989	Dec. 25	1965	506 507	45	1478
Miller, John B. (See Dale, James, assignor.)						
Miller, John B., and J. Dale, Chicago, Ill.; said Miller assignor of one-half his right to said Dale. Bending electrotape-plates	379,707	Feb. 28	2033	537	42	916
Miller, John C. (See Moore and Miller.)						
Miller, John C., assignor to Thomas Manufacturing Company, Springfield, Ohio. Journal-box	382,893	May 15	1505	394	43	820
Miller, John D., Washington, D. C. Draft attachment for vehicles	390,889	Oct. 9	961	254	45	195
Miller, John F. (See Turner, James J., assignor.)						
Miller, John F., Martin's Ferry, Ohio. Manufacturing ornamental glass	393,257	Nov. 20	1575	413	45	916
Miller, John F., Lee, assignor of one-half to B. A. Linville, White, Ind. Weaning-muzzle for animals	382,237	May 1	524	134	43	610
Miller, John H. (See Burnham and Miller.)						
Miller, John L., York, Pa. Wringer	381,158	Apr. 17	1307	349	43	271
Miller, John R., Sterling, Ill. Windmill-regulator	387,363	Aug. 7	243	63	44	618
Miller, John S., Kansas City, Mo. Construction of houses	392,625	Nov. 13	667	166	45	729

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De's	Vol.	Page.
Miller, John T., Chicago, Ill. Step-ladder.....	376,102	Jan. 10	528	141	42	113
Miller, John T., Chicago, Ill. Step-ladder.....	381,210	June 5	517	{ 150 151 }	43	1227
Miller, John T., Thayer, Kans. Shutter.....	380,914	Apr. 10	919	246	43	188
Miller, Joseph. (See Carter and Miller.)						
Miller, Joseph, and F. R. Page, Olean, N. Y. Lamp-extinguishing apparatus.....	380,129	Mar. 27	1897	506	42	1353
Miller, Joseph A., Providence, R. I. Steering apparatus for vessels.....	393,310	Nov. 20	1650	{ 435 436 }	45	931
Miller, Joseph P., Philadelphia, Pa. Reciprocating brick-machine.....	377,767	Feb. 14	658	165	42	636
Miller, Joseph P., Boston, Mass. Couch-bed.....	378,708	Feb. 28	2035	537	42	916
Miller, Joseph P., Boston, Mass. Sofa-bed.....	395,217	Dec. 25	2373	607	45	1553
Miller, Lawrence D., Jacksonville, Ala. Metallic fence-post.....	377,323	Jan. 31	2317	672	42	473
Miller, Lebbeus B., Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Needle-grooving machine.....	386,841	July 31	2352	{ 592 593 }	44	469
Miller, Lee O. (See Counter and Miller.)						
Miller, Levan, Delaware, Ohio. Road-cart.....	388,704	Aug. 28	2302	{ 618 619 }	44	1034
Miller, Lewis, Akron, Ohio. Endless carrier-apron.....	386,551	July 24	1809	478	44	378
Miller, Lewis, Philadelphia, Pa. Cotton-press.....	385,193	June 26	2028	519	43	1537
Miller, Lewis, Philadelphia, Pa. Valve for hydraulic presses.....	386,647	July 24	1933	511	44	402
Miller, Lewis, Philadelphia, Pa. Hydraulic press.....	394,383	Dec. 11	967	{ 254 255 }	45	1266
Miller, Lewis, assignor of two-thirds to V. Schüppeler, Oil City, Pa. Barrel-filler.....	388,899	Sept. 4	139	37	41	1098
Miller, Lewis, and M. L. Wright, Mexico, N. Y. Thill-coupling.....	376,606	Jan. 17	1246	327	42	254
Miller, Lewis, and M. L. Wright, Mexico, N. Y. Thill-coupling.....	388,144	Aug. 21	1486	396	44	871
Miller, Lewis, J. Erskine, and M. L. Wright, Mexico, N. Y. Means for repairing vehicle-wheels.....	377,952	Feb. 14	926	240	42	688
Miller, Louis, and T. A. Wheeler, Greenville, Ohio. Piano-truck.....	389,711	Sept. 18	1396	365	44	1351
Miller, Louis L. (See Perkins and Miller.)						
Miller, Louis L., Newport, assignor of one-half to F. H. Perkins, Covington, Ky. Sewing-machine.....	384,059	June 5	726	92, 93	43	1183
Miller, Marshall C., Ennis, Tex. Ant-trap.....	378,709	Feb. 28	2036	537	42	916
Miller, Marshall J., Memphis, Tenn. Device for multiplying speed of shafts.....	379,971	Mar. 27	1661	443	42	1307
Miller Megee Company. (See Megee, Andrew J., assignor.)						
Miller, Nathaniel, and J. Ritchie, What Cheer, Iowa. Rack-drill.....	387,096	July 31	2612	685	44	539
Miller, Oliver A. (See Fowler, Alfred B., assignor.)						
Miller, Oscar M., Lockridge, Nebr. Wright-motor.....	394,000	Dec. 4	386	106	45	1145
Miller, Percival, Kingston, Pa. Window-screen.....	389,401	Sept. 11	913	239	44	1254
Miller, Richard W., New Haven, Conn., assignor to New York and New Haven Automatic Sprinkler Company, New York, N. Y. Automatic fire-extinguisher.....	379,240	Mar. 13	548	153	42	1075
Miller, Riley E., et al. (See Shepherd, Lewis T., assignor.)						
Miller, Samuel G., Atoka, Tenn. Hay-sling.....	386,337	July 17	1473	390	44	301
Miller, Samuel G., Atoka, Tenn. Hay-elevating device.....	386,338	July 17	1471	391	44	301
Miller & Son, Charles. (See Ingalls, John C., assignor.)						
Miller, Thomas, Jersey City, N. J. Lamp-extinguisher for railway-cars.....	379,121	Mar. 6	379	{ 107 108 }	42	1037
Miller, Walton B., Strasburg, assignor of one-half to E. F. Landis, Lancaster, Pa. Nut-lock.....	382,999	May 15	1652	432	43	847
Miller, Watson J., and H. Berry, Shelton, Conn. Folding mirror.....	392,215	Nov. 6	54	14	45	605
Miller, William, Grand Rapids, Mich. Hot-air furnace.....	378,101	Feb. 21	1132	296	42	736
Miller, William, Glasgow, Scotland. Fire-extinguisher.....	395,069	Dec. 25	2073	536	45	1501
Miller, William B., Altoona, Pa. Dentist's disk-holder.....	381,266	Apr. 17	1462	393	43	300
Miller, William D., Springfield, Ohio. Combined tedder and rake.....	379,972	Mar. 27	1662	{ 443 444 }	42	1307
Miller, William D., Florence, Mass. Dish-washer.....	388,990	Sept. 4	266	70	44	1124
Miller, William F., et al. (See Marshall, Moses J. S., assignor.)						
Miller, William G., assignor of one-half to W. T. and W. M. Johnson, Boonville, Mo. Folding buggy-top.....	382,061	Aug. 21	1316	356	41	841
Miller, William H., New York, N. Y. Electric arc lamp.....	376,007	Jan. 3	390	{ 103 104 }	42	78
Miller, William H., Canton, Ohio. Artificial denture.....	391,062	Oct. 16	1244	331	45	256
Miller, William H., York, Pa., and N. Z. Seitz, Washington, D. C., assignors to Kohler Improved Cattle Car Company, New York, N. Y. Stock-car.....	382,238	May 1	525	{ 134 135 }	43	610
Miller, William L., Van Buren, Ind. Broadcast seed-sower.....	386,339	July 17	1476	391	44	302
Miller, William P., Brooklyn, N. Y. Lubricator.....	390,890	Oct. 9	962	254	45	195
Miller, William R., Baltimore, Md. Load-indicator for cartridge-magazines.....	385,942	July 10	911	242	41	187
Miller, William R., Baltimore, Md. Charge-indicator for magazines of guns.....	387,531	Aug. 7	490	128	44	684
Miller, William R., Baltimore, Md. Indicator for magazines of guns.....	393,653	Nov. 27	2180	571	45	1044
Miller, William R., Baltimore, Md. Load-indicator for magazines of fire-arms.....	394,872	Dec. 18	1765	458	45	1432
Miller's Fall Company. (See Goodell, Albert D., assignor.)						
Millett, Thomas, Jr., London, England. Copying-lathe for turning articles of an irregular contour.....	388,900	Sept. 4	140	37, 38	44	1099
Millhauser, Benedict, Scranton, Pa. Apparatus for extinguishing fires in railway-cars.....	376,749	Jan. 24	1480	390	42	306
Millhouse, James R., Philadelphia, Pa. Railway tie and rail fastening.....	388,296	Aug. 21	1705	455	44	916
Milligan, Henry C., Brooklyn, assignor to Iron Clad Manufacturing Company, New York, N. Y. Enameled ironware.....	386,023	July 10	1011	.....	44	206
Milligan, James R., et al. (See Baltzley, Henry H., assignor.)						
Milligan, Patrick F., Washington, D. C. Portable bullet-proof watch-box.....	383,752	May 29	2799	{ 735 736 }	43	1086
Milligan, Thomas P., South Orange, N. J. Preparing glue-stock.....	379,021	Mar. 6	236	.....	42	1010
Milligan, William T., Boston, Mass., assignor, by mesne assignments, to Ocean Steamship Berth Company, Portland, Me. Self-leveling ship's berth.....	376,542	Jan. 17	1158	304	42	236
Milliken, George F., assignor to Gamewell Auxiliary Fire Alarm Company, Boston, Mass. Electrical continuity vibrator.....	391,547	Oct. 23	1915	515	45	394
Milliken, George F., assignor to Gamewell Auxiliary Fire Alarm Company, Boston, Mass. Electrical signaling apparatus.....	394,784	Dec. 18	1619	425	45	1405
Milliken, George F., Boston, Mass., and H. B. Lytle, Providence, R. I., assignors to Gamewell Auxiliary Fire Alarm Company, Boston, Mass. Electrical auxiliary signaling system.....	377,083	Jan. 31	1977	519	42	408
Milliken, Ira S. (See Harrison, Lee S., assignor.)						
Mills, Anson, assignor of one-half to N. A. Miles, U. S. Army. Tubular metallic pole for telegraphic and other uses.....	377,953	Feb. 14	928	240	42	688
Mills, C. F., et al. (See Mills, Frederick A., assignor.)						
Mills, Chauncey W., Rochester, N. Y. Packing for piston-rods.....	387,900	Aug. 14	1057	279	44	782



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Mills, David B., and S. W. Koeller, Denver, Colo. Apparatus for automatically extinguishing fires and lamps and operating the brakes on railway-cars.	389,236	Sept. 11	670	172	44	1207
Mills, David T., Dayton, Ohio. Pulp-grinder.	393,075	Nov. 20	1315	343	45	864
Mills, Edward C. (See Schwemlien, George, assignor.)						
Mills, Frank P., Chicago, Ill. Hoisting apparatus.	376,672	Jan. 17	1359	{ 357 358 }	42	274
Mills, Frank W. (See Mills, Mortimer B. and F. W.)						
Mills, Frank W., Chicago, Ill. Car-brake.	381,570	Apr. 24	1913	504	43	407
Mills, Frederick A., assignor of one-half to Middleton Bros. and C. F. Mills, Dallas, Tex. Plow.	392,216	Nov. 6	56	15	45	605
Mills, Guy C., assignor to F. H. Ayer, Nashua, N. H. Shuttle for looms.	378,895	Mar. 6	53	15	42	977
Mills, Mortimer B., Chicago, Ill. Car-brake.	381,571	Apr. 24	1915	505	43	407
Mills, Mortimer B., Chicago, Ill. Car-brake.	387,434	Aug. 7	347	89	44	640
Mills, Mortimer B., Chicago, Ill. Gate.	387,435	Aug. 7	349	89, 90	44	641
Mills, Mortimer B., assignor to Pneumatic Gate Company, Chicago, Ill. Gate for railway-crossings.	380,447	Apr. 3	210	57	43	42
Mills, Mortimer B. and F. W., Chicago, Ill. Car-brake.	376,898	Jan. 24	1713	449	42	350
Mills, Mortimer B. and F. W., assignors to Mills Railroad Gate Company, Chicago, Ill. Gate.	381,150	Apr. 17	1308	{ 349 350 }	43	272
Mills Railroad Gate Company. (See Mills, Mortimer B. and F. W., assignors.)						
Mills, Ralph, New York, N. Y. Check-receiver.	388,901	Sept. 4	145	38	44	1099
Mills, Stephen V., Richfield, Pa. Apparatus for fertilizers.	394,708	Dec. 18	1480	386	45	1375
Mills, Thomas B. (See Levison, Chancellor G., assignor.)						
Mills, William F. (See Flint, Samuel E., assignor.)						
Mills, William O., Zionsville, Ind. Throat-protector for horses.	378,373	Feb. 21	1545	404	42	813
Millsap, Thomas H. B., Harper, Kans. Thill-coupling.	379,591	Mar. 20	1073	285	42	1183
Millsap, Thomas H. B., Harper, Kans. Bench-plane.	383,234	May 22	2023	531	43	930
Millsbaugh, Andreas P., Darien, Conn. Bench-hook.	376,331	Jan. 10	859	225	42	174
Millsbaugh, Andreas P., Darien, Conn. Wagon-jack.	384,705	June 19	1304	341	43	1385
Millsbaugh, William, assignor of one-half to W. S. Burling, Middletown, N. Y. Tool-handle.	376,413	Jan. 10	966	252	42	193
Milne, James, assignor to M. D. Barr, Montreal, Quebec, Canada. Hand nailing implement.	393,118	Nov. 20	1374	359	45	875
Milne, James T., et al. (See Littlefield, Charles A., assignor.)						
Milroy, Thomas K., Parsons, Kans. Weather-strip.	385,065	June 26	1817	473	43	1499
Milson, John R., Newton, Mass. Spindle for cap-spinning machines.	387,245	Aug. 7	67	16	44	584
Milwaukee Harvester Company. (See Crandall, Henry F., assignor.)						
Milwaukee Harvester Company. (See Graham, James A., assignor.)						
Milwaukee Harvester Company. (See Latimer, John W., assignor.)						
Milwaukee Harvester Company. (See Riley, Edward, assignor.)						
Minard, Horace C. and L. C., St. Charles, Iowa. Tug-buckle.	382,545	May 8	1014	259	43	712
Minard, Joseph T., Highland, N. Y. Plow attachment.	375,762	Jan. 3	57	17	42	15
Minard, Laurence C. (See Minard, Horace C. and L. C.)						
Mindemann, John. (See Wolz, George, assignor.)						
Miner, Charles N., Haverhill, assignor of one-half to H. H. Clark, Franconia, N. H. Needle-threading attachment for sewing-machines.	392,626	Nov. 13	667	167	45	729
Miner, Henry C., Stafford, N. Y. Stanchion.	388,572	Aug. 28	2106	565	44	998
Miner, Henry M., Green Point, N. Y. Manufacture of roofing-felt.	360,915	Apr. 10	921	246	43	188
Miner, James H., Baton Rouge, La. Saw-mill dog.	380,916	Apr. 10	922	247	43	189
Miner, James H., Baton Rouge, La. Saw-swago.	381,633	Apr. 24	2005	326	43	425
Minges, John, Atlanta, assignor to Stockton Combined Harvester and Agricultural Works, Stockton, Cal. Combined header and thrasher.	393,847	Dec. 4	166	45	45	103
Mingle, George W. and W., Philadelphia, Pa. Protector for electrical instruments.	385,770	July 10	657	172	44	136
Mingle, William. (See Mingle, George W. and W.)						
Mingle, William J., Lancaster, Pa. Rotary fan.	378,710	Feb. 28	2037	538	42	917
Minier, Abram D., Milan, Pa. Rotary steam-engine.	392,356	Nov. 6	267	68	45	645
Minneapolis Harvester Works. (See Kennedy, Samuel V., assignor.)						
Minneapolis Harvester Works. (See Kennedy and Anderson, assignors.)						
Minneapolis Harvester Works. (See Kennedy and Strunk, assignors.)						
Minneapolis Harvester Works. (See Strunk, Daniel, assignor.)						
Minnich, Simon B., Landisville, Pa. Centering device.	380,130	Mar. 27	1898	506	42	1353
Minnich, Simon B., assignor to J. M. Greider, Landisville, Pa. Centering-machine.	387,901	Aug. 14	1058	279	44	782
Minnick, Lorenzo D., Rockford, Ill. Finger-bar.	388,705	Aug. 28	2303	619	44	1035
Minter, Henry, Worcester, Mass. Machine for shaving heads of bolts, nuts, &c.	360,917	Apr. 10	922	247	43	189
Minter, Thomas H., Winfield, Colo. Slimer and settler.	382,433	May 8	832	213	43	678
Minton, T. W. (See Bradford, John H., assignor.)						
Minton, Thomas. (See Brock and Minton.)						
Mintzer, George W., Philadelphia, assignor to H. M. Clark, Tidouste, Pa. Case for holding playing-cards.	389,093	Sept. 4	416	109	44	1152
Miot, Georges, Paris, France. Dynamo-electric machinery.	386,340	July 17	1478	392	44	302
Miot, Georges, Paris, France. Inductometer.	386,648	July 24	1935	511.	44	403
Misch, George A. (See Roehl, Carl, assignor.)						
Mishler, Jesse, Sterling, Ill. Fodder-loader.	391,979	Oct. 30	2533	686	45	528
Mishler, Phares M., Hagerstown, Md. Hedge.	380,448	Apr. 3	213	57	43	43
Mishler, Phares M., Hagerstown, Md. Portable fence.	3 1,632	Oct. 23	2026	548	45	417
Missel, Elias. (See Frech and Missel.)						
Mitchamore, Charles H., assignor of four-tenths to J. A. Steinbarger, Columbus, and W. O. Brown, Jr., Toledo, Ohio. Roll-writing-paper device.	391,379	Oct. 16	1684	445	45	338
Mitchell, Adolph L., Brooklyn, N. Y. Can or jar top cover.	395,289	Dec. 25	2432	625	45	1565
Mitchell, Albion L. F., Beachmont, and J. P. Reynolds, Jr., Milton, Mass., assignors to Le Gay Heel Company, Portland, Me. Manufacture of heels for boots or shoes.	383,139	May 22	1890	493	43	903
Mitchell, Benjamin A., Jr., Philadelphia, Pa. Door-check.	394,709	Dec. 18	1481	386	45	1375
Mitchell, Benjamin L., Wilton, Wis. Tether.	379,485	Mar. 13	908	245	42	1144
Mitchell, Benjamin L., Wilton, Wis. Device for tightening barb-wire.	379,486	Mar. 13	909	245	42	1145
Mitchell, Charles E., Bangor, Me. Baling-crib.	386,649	July 24	1937	512	44	403
Mitchell, Charlie I., assignor, by mesne assignments, to J. H. Raymond, trustee, Chicago, Ill. Lantern-frame.	394,590	Dec. 18	1291	338	45	1339
Mitchell, Daniel L., Taunton, Mass. Indicator-dial.	376,103	Jan. 10	530	141	42	113
Mitchell, Frank B., Columbus, Ohio. Commutator for dynamo-electric machines.	385,943	July 10	912	243	44	187
Mitchell, Frank S., Pocatello, Idaho Ter. Railway-switch-stand lock.	379,122	Mar. 6	380	108	42	1037
Mitchell, Frederick, Brooklyn, N. Y. Inkstand.	378,208	Feb. 21	1294	342	42	766
Mitchell Furniture Company, Robert. (See Stewart, Alexander W., assignor.)						
Mitchell, George F. (See Busenbarrick and Mitchell.)						
Mitchell, Horace H., assignor of one-half to C. P. Bassett, Newark, N. J. Apparatus for flushing sewers.	389,712	Sept. 18	1398	366	44	1351

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'g.	Vol.	Page.
Mitchell, J. F., <i>et al.</i> (See Elward, John H., assignor.)						
Mitchell, James A., Westminster, Md. Hedge	380,449	Apr. 3	213	58	43	43
Mitchell, James A., Westminster, Md. Hedge	380,450	Apr. 3	214	58	43	43
Mitchell, John W., Macon City, Mo. Harness-saddle	380,451	Apr. 3	215	58	43	44
Mitchell, Jonas L., Logan, Ohio. Lancing-catch for mining-cages	377,402	Feb. 7	53	15	42	506
Mitchell, Joseph P., New Bedford, Mass. Wrench	385,366	July 3	42	13	44	11
Mitchell, Joseph R., Oakland, Cal. Steam-engine indicator attachment	380,918	Apr. 10	927	248	43	190
Mitchell, Mancel W., assignor of one-half to H. A. Goetz, New Albany, Ind. Beam-end protector	387,004	July 31	2487	653	44	515
Mitchell, Peter, New York, N. Y. Turf-racing record-book	384,266	June 12	638	173	43	1252
Mitchell, Robert J., Seneca, Mo. Wagon-brake	385,187	May 22	1953	512	43	916
Mitchell, Thomas A., Washington, D. C. Salt-cellar	392,052	Oct. 30	2643	719	45	549
Mitchell, William. (See Griffin and Mitchell.)						
Mitchell, William J., Princeton, Ky. Plottor and protractor	376,332	Jan. 10	860	226	42	174
Mitchell, Willis M. (See Vladyka and Mitchell.)						
Mitscherlich, Alexander, Freiburg, Baden, Germany. Manufacture of fibers of wood for spinning purposes	388,591	Sept. 4	266		44	1124
Mittge, Charles V., Brooklyn, N. Y. Water-proof composition for floors, walls, &c	385,471	July 3	206		44	41
Mitting, Ebenezer K., assignor to J. Glatz, Brooklyn, N. Y., and A. Domeier, London, England. Recovering glycerine from spent soap-lyes	385,367	July 3	43		44	11
Mittler, Charles H., Marthasville, Mo. Animal-trap	384,972	June 5	195	56	43	1158
Mitts, S. S. (See Merrill, William, assignor.)						
Mitts, Sylvanis S., <i>et al.</i> (See Gregg, John A., assignor.)						
Mitzel, Philip M. (See Mitzel and Haney.)						
Mitzel, Walter L. and P. M., and J. Q. A. Haney, Felton, Pa. Horse-detacher	384,060	June 5	327	93	43	1183
Mitzschke, Heinrich, Waldhof, near Kamenz, Saxony, Germany. Convertible skittle-alley	390,247	Oct. 2	76	92	45	18
Mix, Frank W., New Britain, Conn. Friction-hinge	379,901	Mar. 20	1560	411	42	1277
Mixer, Samuel J., Boston, Mass. Charger for magazine fire-arms	391,811	Oct. 30	2288	621	45	479
Moakley, Michael W., assignor to W. W. Lee, Northampton, Mass. Carving-fork	393,715	Nov. 27	2264	594	45	1061
Moats, Lewis B., Jamestown, Pa. Thill-coupling	380,452	Apr. 3	216	58	43	44
Moats, Ortus E. (See Miller and Moats.)						
Moats, Ortus E., Decatur, Ill. Road-grader	376,156	Jan. 10	611	165	42	128
Mobley, Watson C., assignor of one-half to J. C. Kay, Allegheny, Pa. Artesian-well-drilling device	392,627	Nov. 13	668	167	45	729
Mock, James. (See Warburton, George, assignor.)						
Mode, Edward B., Wilmington, Del. End-gate	391,785	Dec. 18	1622	425	45	1405
Model Sewing Machine Company. (See Post, John W., assignor.)						
Moderly, Ambrosius, and A. Lenkhardt, Indianapolis, Ind. Flat-iron heater	382,718	May 15	1270	333	43	771
Moehring, Hermann, and A. Pflüger, Frankfort-on-the-Main, Prussia, Germany. Steam or other motor	383,405	May 22	2274	605	43	975
Moehring, Hermann, and A. Pflüger, Frankfort-on-the-Main, Prussia, Germany. Valve for steam or other engines	383,406	May 22	2279	606	43	975
Moehring, Hermann, and A. Pflüger, Frankfort-on-the-Main, Prussia, Germany. Mechanical movement	383,407	May 22	2281	606	43	976
Moehring, Hermann, and A. Pflüger, Frankfort-on-the-Main, Prussia, Germany. Mechanical movement	383,408	May 22	2283	606	43	976
Moeller, Fritz, assignor of one-half to J. S. Watson, Davenport, Iowa. Wagon chute	386,153	July 17	1209	322	41	252
Moeser, John E. (See Lewis, Annie, assignor.)						
Moffat, George D., Chicago, Ill., assignor to G. W. Lyon, P. J. Healy, R. B. Gregory, and C. N. Post. Capodastro for guitars	390,612	Oct. 2	571	152	45	115
Moffet, Joseph, Cleveland, Ohio. Ship	381,943	May 1	64	16	43	527
Moffitt, John W., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Artificial tooth	378,015	Feb. 14	1014	264	42	705
Mögel, Ernst, Dresden, Saxony, Germany. Holder for tickets, &c	382,823	May 15	1409	370	43	800
Moger, John J., Green Bay, Wis., assignor of one-half to P. B. Warner, Minneapolis, Minn. Hoop-dressing machine	378,454	Feb. 28	1675	439	42	845
Mohr, Gustav, Philadelphia, Pa. Apparatus for fitting up matrices	378,799	Feb. 28	2169	576	42	942
Mohr, Hermann, Mannheim, Baden, Germany. Apparatus for automatically counting and registering railway-trucks	379,800	Mar. 20	1382	367	42	1245
Mohrman, R., <i>et al.</i> (See Wilcox, William E., assignor.)						
Moldenke, Richard G. G., New York, N. Y. Electro-magnetic air-compressing rock-drill	394,263	Dec. 11	685	183	45	1211
Moline Plow Company. (See Bartlett, John W., assignor.)						
Moline Plow Company. (See Lindgren, August, assignor.)						
Moll, Markus. (See Noll and Moll.)						
Müller, K. & Th. (See Gräbner and Rupert, assignors.)						
Molloy, James F., West Haven, Conn. Buckle	383,753	May 29	2800	736	43	1086
Molloy, James F., West Haven, Conn. Clasp for suspenders. (Reissue)	10,964	Oct. 30	244	711	45	58
Moltzeu, Augustus F., Oakland, Cal. Thill-coupling	381,267	Apr. 17	1464	393	43	300
Molyneux, Patrick, London, England. Composition for lining petroleum-tanks and similar vessels	380,398	Apr. 3	136		43	29
Momberg, Christian, Copenhagen, Denmark. Inlaid floor	377,685	Feb. 7	507	120	42	591
Momberg, Christian, Copenhagen, Denmark. Top plate for stair-steps	381,407	Apr. 17	1665	446	43	311
Monahan, Lawrence, Jr., Morris Plains, N. J. Hoot-expander	383,555	May 29	2553	675	43	1035
Mond, Ludwig, Northwich, county of Chester, England. Obtaining ammonia and hydrochloric acid	379,487	Mar. 13	910	245	42	1145
Mond, Ludwig, Northwich, county of Chester, England. Obtaining ammonia and chlorine from ammonium chloride	379,488	Mar. 13	912	245	42	1145
Mongenis, Jean B. A., <i>et al.</i> (See Martel, Adelard F., assignor.)						
Monk, Henry, Cambridge, Mass. Starching-machine	391,633	Oct. 23	2027	548	45	417
Monk, Henry, Lewiston, Me. Starching-machine	391,634	Oct. 23	2028	549	45	418
Monks, George H., Boston, Mass. Game of skill	383,653	May 29	2648	701	43	1056
Monnet, Prosper, Lyons, France. Dyeing colors by the simultaneous oxidation of diamines and monamines	387,097	July 31	2613		44	539
Monnier, Denys. (See Becker and Monnier.)						
Monnier, Victor, Dundas, Minn. Middlings-purifier	387,798	Aug. 14	898	232 233	44	752
Monnin, Alphens C. (See Filliez and Monnin.)						
Monro, Stephen L., <i>et al.</i> (See Pruim, Hiram P., assignor.)						
Monroe, Alexander R. (See Johns, Samuel E., assignor.)						
Monroe, Charles W., Cleveland, Ohio. Refrigerator	379,521	Mar. 13	961	259	42	1155
Monroe, Isaac C., and W. H. H. Sisum, Brooklyn, N. Y.; said Sisum assignor to said Monroe. Paddle-wheel boat	383,897	June 5	73	21	43	1135

## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Montague, Gilbert, <i>et al.</i> (See Bundy, Warren, assignor.)						
Montague, John R., Auburn, N. Y., assignor to Montague Roller Cotton-Gin Company, Toledo, Ohio. Machine for opening, cleaning, and ginning seed-cotton.	382,754	May 29	2802	{ 736 737 }	43	1086
Montague Roller Cotton-Gin Company. (See Montague, John R., assignor.)						
Montague, Stanley G., Gainestown, Ala. Composition of matter applicable to metal-cutting tools.	386,753	July 24	2081	66	44	429
Monteith, George, Cincinnati, Ohio. Buggy-boot.	393,780	Dec. 4		19	45	1085
Monterverde, John. (See Stevenson, William, assignor.)						
Montgomery, Alexis R., Decatur, Ill. Corn-sheller.	388,062	Aug. 21	1317	356	44	842
Montgomery, Edward F., and A. Heiberger, Sandusky, Ohio; said Montgomery assignor to said Heiberger. Device for converting motion.	390,502	Oct. 2	434	112	45	88
Montgomery, George S., Atlantic, Iowa. Artificial fuel.	391,179	Oct. 16	1409	376	45	286
Montgomery, Harry C., Cleveland, Ohio. Self-closing faucet.	382,654	May 8	1180	305	43	745
Montgomery, Harry C., Cleveland, Ohio. Check-valve.	382,655	May 8	1181	305	43	746
Montgomery, Harry C., Cleveland, Ohio. Sewer gas-trap.	382,656	May 8	1182	306	43	746
Montgomery, James, East Millstone, N. J. Stock-car.	387,246	Aug. 7	69	16	44	585
Montgomery, James H., Denver, Colo. Automatic tack-driver.	383,478	May 29	2397	638	43	1005
Montgomery, James M., Kingston, N. Y. Cigar-hunching machine.	387,098	July 31	2614	687	44	539
Moock, Otto T., and W. L. Headly, Philadelphia, Pa.; said Moock assignor to said Headly. Sleeve-button.	382,485	May 8	921	234	43	694
Moody, Benjamin A., Boston, assignor of three-eighths to C. C. Sanderson, Dedham, Mass. Hydrocarbon-furnace.	387,799	Aug. 14	501	{ 233 234 }	44	752
Moody, Charles D. (See Symonds, Herbert, assignor.)						
Moody, Charles D., <i>et al.</i> (See Payne, William H., assignor.)						
Moody, Charles D., <i>et al.</i> (See Stephens, Lawrence, assignor.)						
Moody, Henry T., assignor to Victor Manufacturing Company, Newburyport, Mass. Door-hanger support.	391,635	Oct. 23	2030	549	45	418
Moody, James M. and S. B., Harwich, Mass. Railway-rail joint or chair.	388,063	Aug. 21	1318	357	44	842
Moody, Sidney B. (See Moody, James M. and S. B.)						
Moody, William H., Pittsfield, Me. Wood rack and carrier.	388,434	Aug. 28	1918	512	44	961
Moody, William H., Pittsfield, Me. Milking-stool.	393,716	Nov. 27	2264	594	45	1061
Mooney, Joseph G., assignor to Taper Sleeve Pulley Works, Erie, Pa. Belt-pulley.	391,180	Oct. 16	1409	376	45	286
Moon, Dewitt A., Orlando, Fla. Rolling colter.	389,239	May 1	528	135	43	610
Moon, Edward A., Chicago, Ill. Device for converting motion.	381,160	Apr. 17	1311	350	43	272
Moon, Edward A., Cleveland, Ohio. Device for converting motion.	381,161	Apr. 17	1312	350	43	272
Moonelis, Adolph, <i>et al.</i> (See Smith, James E., assignor.)						
Mooney, Herman O., Farmington, N. H. Feather renovator and sorter.	387,800	Aug. 14	903	234	44	752
Mooney, John, Syracuse, N. Y. Screw-clamp.	378,896	Mar. 6	54	15	42	977
Mooney, William A., Philadelphia, Pa. Spring bed-bottom.	382,486	May 8	922	234	43	694
Mooney, William C. (See Cameron, Donald, assignor.)						
Moore, Andrew R., Charlotte, Mich. Fire-escape.	376,807	Jan. 24	1585	415	42	326
Moore, Aquila, assignor to Peck Bros. & Company, New Haven, Conn. Waste-plug for wash-basins.	392,819	Nov. 13	956	245	45	785
Moore, B. F., <i>et al.</i> (See Hopkins, Samuel E., assignor.)						
Moore, Calvin K. (See Moore, William H. and C. K.)						
Moore, Charles, <i>et al.</i> (See Bunch, William, assignor.)						
Moore, Charles C., assignor to J. B. Moore, New York, N. Y. Adding-machine.	383,973	June 5	196	57, 58	43	1158
Moore, Charles H., Yonkers, N. Y. Bath-tub, sink, or wash-basin.	379,973	Mar. 27	1664	444	42	1307
Moore, Charles L., Worcester, Mass. Cuff-fastener.	391,264	Oct. 16	1523	404	45	308
Moore, Charles M., Rupee, Tex. Windmill.	392,217	Nov. 6	58	15	45	606
Moore, Charles V., Fairmount, Ind. Axle spindle and bearing.	388,214	Aug. 21	1577	420	44	889
Moore, Clifton M., Revere, Mass. Blotting-pad.	377,040	Jan. 31	1905	501	42	394
Moore, D. Sackett. (See Cooke, George K., assignor.)						
Moore, Daily S., assignor of two-thirds to A. and A. Price, Chicago, Ill. Machinery for laying railway-tracks.	379,178	Mar. 6	444	125	42	1051
Moore, Edward G., Wilmington, Del. Air-pump governor.	378,609	Feb. 28	1889	500	42	889
Moore, Edward J., Philadelphia, Pa. Sectional water-tube boiler.	376,453	Jan. 17	1072	281	42	221
Moore, Edward J., Philadelphia, Pa. Feed-water heater.	382,546	May 8	1015	259	43	712
Moore, Edward Y., Chicago, Ill. Door-hanger.	394,873	Dec. 18	1766	458	45	1432
Moore, Estelle C. (See Moore, George H., assignor.)						
Moore, Ethelbert J., and A. R. Paulus, Villisca, Iowa. Fastening-block for guard-rails, switch-rails, or frogs.	385,472	July 3	207	54	44	41
Moore, Everett D., assignor to T. C. Chappell, Baltimore, Md. Life-saving device.	384,923	June 19	1615	420	43	1444
Moore, Francis A. (See Finerty and Moore.)						
Moore, Frank, assignor to G. Westinghouse, Jr., Pittsburg, Pa. Incandescent electric lamp.	389,526	Sept. 11	1091	289	44	1287
Moore, Frank P. (See Burke, Benjamin F., assignor.)						
Moore, Frederick W., assignor to J. T. Barnes, Philadelphia, Pa. Composition for coating coffee.	393,917	Dec. 4	272		45	1123
Moore, George A., Cambridge, Mass. Elevator.	382,487	May 8	924	234	43	694
Moore, George H., Norwich, Conn. Apparatus for automatically controlling the operation of pressure-valves.	392,218	Nov. 6	60	15, 16	45	606
Moore, George H., Norwich, Conn. Apparatus for cleaning filter-beds.	395,070	Dec. 25	2074	536	45	1501
Moore, George H., assignor to E. C. Moore, Norwich, Conn. Valve.	384,330	June 12	739	194	43	1269
Moore, George W., <i>et al.</i> , trustees. (See Cole, William R., assignor.)						
Moore, Hartwell R., Norwalk, Ohio. Piano-pedal manual attachment.	391,181	Oct. 16	1410	377	45	287
Moore, Harvey E., Lena, Ohio. Gate.	381,634	Apr. 24	2006	526	43	425
Moore, Henry C., Tama City, Iowa. Reversible road and ditching machine.	377,041	Jan. 31	1906	501	42	394
Moore, Hollis W., Olean, N. Y. Steam-boiler.	391,265	Oct. 16	1523	{ 404 405 }	45	308
Moore, Homer J., assignor to Bryant & Stratton Mechanical Appliance Company, Chicago, Ill. Machine for sealing and stamping envelopes.	376,333	Jan. 10	862	226	42	174
Moore, Homer J., assignor to Bryant & Stratton Mechanical Appliance Company, Chicago, Ill. Envelope sealer and stamper.	377,170	Jan. 31	2092	551	42	432
Moore, Hugh, Mauch Chunk, Pa., assignor of two-thirds to A. Scott and S. Carpenter. Broom-bridle.	394,658	Dec. 18	1402	365	45	1359
Moore, J. E., <i>et al.</i> (See Hopkins, Samuel E., assignor.)						
Moore, Jacob B. (See Moore, Charles C., assignor.)						
Moore, James A., Hamilton, assignor to M. C. Moore, Bunker Hill, Ohio. Harrow.	391,380	Oct. 16	1685	446	45	338
Moore, James G. (See Ginn, William E., assignor.)						
Moore, James L., Stratford, assignor, by mesne assignments, to S. H. Hubbard, Bridgeport, and J. K. Beach, New Haven, Conn. Machine for making upholsterers' tufts.	383,755	May 29	2805	{ 737 738 }	43	1087
Moore, James M., Union City, Tenn. Stump-puller.	390,390	Oct. 2	275	72, 73	45	59
Moore, John F., Centralia, Wis. Spring for wagon-seats.	376,718	Jan. 17	1433	376	42	288

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Moore, John F., assignor to Fort Worth Iron Works Company, Fort Worth, Tex. Well-drilling machine.....	384,994	June 26	1716	{ 445 446 }	43	1474
Moore, John H. (See Booth, James, assignor.)						
Moore, John T. (See Michales, Moses A., assignor.)						
Moore, John T. (See Thompson, Andrew, assignor.)						
Moore, Jonathan J., Thorntown, Ind. Steam-boiler.....	393,781	Dec. 4	68	19	45	1085
Moore, Joseph A., Boston, Mass. Safety apparatus for elevators.....	388,297	Aug. 21	1706	455	44	917
Moore, Joseph F. (See Lounsbery, Horace W., assignor.)						
Moore, Joseph L. (See Thompson, Andrew, assignor.)						
Moore, Joseph T., and W. H. Edwards, Wake Forest, N. C. Car-coupling.....	391,636	Oct. 23	2031	550	45	418
Moore, Lemuel, Chicago, Ill. Mop.....	386,341	July 17	1479	392	44	302
Moore, Mark C. (See Moore, James A., assignor.)						
Moore, Martin C. (See Springer, John, assignor.)						
Moore, Mary E., New York, N. Y. Ear-battery for the deaf.....	389,215	Mar. 27	2010	538	42	1376
Moore, Otis G. (See Marcus and Moore.)						
Moore, Rufus R., Modesto, Cal. Traveling thrasher.....	380,453	Apr. 3	216	59, 60	43	41
Moore, Sidney F., Forest, and J. C. Miller, Dunkirk, Ohio. Saw-mill.....	388,902	Sept. 4	146	39	44	1100
Moore, Stephen F., Milwaukee, Wis. Carving-machine.....	384,995	June 26	1718	446	43	1474
Moore, Stephen F., Milwaukee, Wis. Carving-machine.....	394,710	Dec. 18	1482	387	45	1375
Moore, Sylvester L. (See Lyon and Moore.)						
Moore, Thomas B. (See Gallagher, George F., assignor.)						
Moore, Thomas B., Philadelphia, Pa. Railway tie and fastening.....	375,763	Jan. 3	57	17	42	15
Moore, Thomas B., assignor of one-half to G. F. Gallagher, Rochester, N. Y. Furnace.....	393,258	Nov. 20	1576	413	45	916
Moore, Thomas W., assignor to T. W. Moore, Jr., Plainfield, N. J. Car-platform.....	381,022	Apr. 10	1085	288	43	219
Moore, Wilbur F., Franklin, Ky. Washing-machine.....	388,706	Aug. 28	2304	619	44	1035
Moore, William, Mooney, Ind. Saw-die-adjusting weight.....	377,528	Feb. 7	273	69	42	547
Moore, William, Kokomo, Ind. Gas-stove.....	385,277	June 26	2160	552	43	1564
Moore, William C., Springfield, Mo. Rotary corn-popper.....	389,316	Sept. 11	793	202	44	1230
Moore, William E., Chillicothe, Ohio. Checkrein-hook.....	378,899	Jan. 24	1715	449	42	350
Moore, William H., Gardiner, Me. Machine for making excelsior.....	379,592	Mar. 20	1074	286	42	1183
Moore, William H. and C. K., Andersonville, Tenn. Churn.....	388,064	Aug. 21	1320	357	44	842
Moore, William R. (See Cronin and Moore.)						
Moore, William R., Unionville, Pa. Check-hook.....	376,334	Jan. 10	862	236	42	174
Moore, William R., Philadelphia, Pa. Engraving-machine.....	387,595	Aug. 7	613	{ 159 160 }	44	690
Moorhouse, Sidney. (See Hawthorn and Moorhouse.)						
Moors, Arthur. (See Philburn and Moors.)						
Moors, Frank B., San Francisco, Cal. Sash-holder.....	381,268	Apr. 17	1465	394	43	300
Moore, John W., Mount Pleasant, N. C. Base-ball bat.....	377,686	Feb. 7	509	130	42	591
Moran, Daniel, Dent's Run, Pa. Cant-hook.....	393,384	Nov. 27	1767	468	45	962
Moran, John, Adair, Mo. Poultry-car.....	375,764	Jan. 3	58	17	42	15
Moran, John, Adair, Mo. Corn-planter.....	386,207	July 17	1274	340	44	265
Moran, John, Adair, Mo. Egg-carrier.....	392,628	Nov. 13	672	167	45	729
Moran, Michael J., Kansas City, Mo. Seal-lock.....	394,204	Dec. 11	687	184	45	1211
Moran, Samuel, <i>et al.</i> (See De Borger, Frank J., assignor.)						
Moran, Thomas W., Louisville, Ky. Metallic flexible-joint coupling.....	391,329	Oct. 16	1610	426	45	325
Moran, Thomas W., Louisville, Ky. Barrel-filler.....	392,448	Nov. 6	405	{ 100 101 }	45	670
Moran, William, Erie, Pa. Fetter-lock.....	390,503	Oct. 2	435	112	45	88
Morava, Wensel, Chicago, Ill. Gas-scrubber.....	388,903	Sept. 4	148	39	44	1100
Morck, August, Jr., Warren, Pa. Spectacles.....	392,053	Oct. 30	2643	719	45	549
Morden, William J. (See Childs, James E., assignor.)						
Morden, William J. (See Young, William H., assignor.)						
Mordey, William M. (See Sellon and Mordey.)						
Moreau, Eugène, Philadelphia, Pa. Stock for skeleton burners for incandescent lighting and making the same.....	383,898	June 5	74	22	43	1135
Moreau, Eugène, Philadelphia, Pa. Incandescent gas-burner.....	387,089	July 31	2615	687	44	539
Moreau, Eugène, Philadelphia, Pa. Making incandescent gas-burners.....	392,129	Oct. 30	2770	752	45	574
Moreau, Eugène, Philadelphia, Pa. Machine for perforating cones.....	392,130	Oct. 30	2771	{ 752 753 }	45	574
Moreau, Eugène, Philadelphia, Pa. Incandescent.....	392,163	Oct. 30	2823	765	45	584
Moreau, Eugène, assignor to R. B. Westbrook, Philadelphia, Pa. Mining-machine.....	376,719	Jan. 17	1433	{ 377 378 }	42	288
Moreau, Eugène, Philadelphia, Pa., assignor to Siemens Lungren Company, of Pennsylvania. Gas-burner.....	389,757	Sept. 18	1457	{ 381 382 }	44	1363
Morell, James F., assignor of one-half to J. E. Roberts, Camden, N. J. Repairing vehicle-axles.....	376,900	Jan. 24	1716	450	42	350
Moréon, Pierre R., and C. Durand, Lyons, France. Apparatus for facilitating the reading of geographical globes.....	387,957	Aug. 11	1158	314	44	803
Morey, Roswell E., San Francisco, Cal. Fruit-box.....	390,135	Sept. 25	2027	540	44	1485
Morgan, Aldis O., Hermon, N. Y. Stake-and-rail fence.....	394,874	Dec. 18	1767	458	45	1432
Morgan, Benjamin B., Ann Arbor, Mich. Car-coupling.....	376,335	Jan. 10	863	226	42	174
Morgan, Benjamin B., Ann Arbor, assignor of three-fourths to H. P. Glover, E. C. Bowling, and E. R. E. Cowell, Ypsilanti, Mich. Railway-crossing.....	393,654	Nov. 27	2182	572	45	1045
Morgan, Benjamin H., Leavenworth, Kans. Filing-case.....	388,498	Aug. 28	2003	538	44	978
Morgan, Charles. (See Morgan, Edgar H. and C.)						
Morgan, Charles and E. H., Freeport, Ill. Box-fastener.....	388,992	Sept. 4	267	71	44	1124
Morgan, Charles and E. H., Freeport, Ill. Cork-extractor.....	390,183	Sept. 25	2101	560	44	1500
Morgan, Charles F., Cleveland, Ohio. Book-cover.....	382,719	May 15	1270	333	43	772
Morgan, Charles H., Buffalo, N. Y. Gear-wheel.....	379,022	Mar. 6	238	67	42	1011
Morgan, Charles H., Buffalo, N. Y. Gear-wheel.....	380,454	Apr. 3	320	60	43	45
Morgan, Charles H., Worcester, Mass. Rolling-mill plant.....	379,974	Mar. 27	1666	444	42	1308
Morgan, Charles H., Worcester, Mass. Wire-rod-reeling machine.....	381,408	Apr. 17	1666	{ 446 447 }	43	312
Morgan, Charles H., and K. J. Sunstrom, Worcester, Mass.; said Sunstrom assignor to said Morgan. Rolling-mill plant.....	379,902	Mar. 20	1561	{ 441 412 }	42	1277
Morgan, Doctor F., Akron, Ohio. Sectional steam-boiler.....	379,975	Mar. 27	1667	{ 444 445 }	42	1308
Morgan, Edgar H. (See Morgan, Charles and E. H.)						
Morgan, Edgar H. and C., Freeport, Ill. Coffee-mill.....	395,290	Dec. 25	2433	626	45	1565
Morgan, Edgar H. and C., assignors of one-third to A. Baumgarten, Freeport, Ill. Coffee-mill.....	390,184	Sept. 25	2102	560	44	1500
Morgan, Edgar H. and C., assignors of one-third to A. Baumgarten, Freeport, Ill. Coffee-mill.....	390,185	Sept. 25	2103	{ 560 561 }	44	1500

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.-g.	Vol.	Page.
Morgan Envelope Company. (See Lane, Henry S., assignor.)						
Morgan, Frank E. (See Lane, Frederic A., assignor.)						
Morgan, Fred W., Chicago, Ill. Steam-packing	394,990	Dec. 25	1966	507	45	1478
Morgan, Harry W., Rochester, N. Y. Sash-balance	395,165	Dec. 25	2240	576	45	1530
Morgan, Henry P., assignor to Norwalk Iron Works Company, South Norwalk, Conn. Valve for air-compressors	392,054	Oct. 30	2645	720	45	549
Morgan, Horace H., Killbuck, N. Y. Frost-protector for foundations	385,278	June 26	2162	552	43	1564
Morgan, John, Santa Clara, Cal. Orchard and vineyard cultivator	390,305	Oct. 2	142	40	45	32
Moritz, John H. (See Runyon, Archibald S., assignor.)						
Morgan, John W., Washington, D. C. Paper box	393,655	Nov. 27	2183	572	45	1045
Morgan, Joseph B. (See Morgan, Robert D. and J. B.)						
Morgan, Joseph, Jr., Johnstown, Pa. Feeding appliance for rolling-mills	383,000	May 15	1653	432 } 433 }	43	848
Morgan, Nathan N., Leavenworth, Ind. Ironing-board	393,339	Nov. 20	1695	448	45	940
Morgan, Robert D. and J. B., Macon City, Mo. Fifth-wheel	376,779	Jan. 24	1537	404	42	317
Morgan, Thomas W., Oakland, Cal. Ventilating man-holes for sewers	388,993	Sept. 4	268	71	44	1124
Morgel, George, Brazil, Ind. Checkrein-holder	394,591	Dec. 18	1291	339	45	1345
Morhous, Frederick P., assignor to H. W. Putnam, Bennington, Vt. Bottle-stopper	377,042	Jan. 31	1908	502	42	394
Morhous, Frederick P., assignor to H. W. Putnam, Bennington, Vt. Bottle-stopper	377,043	Jan. 31	1908	502	42	395
Moritz, Adam G., Philadelphia, Pa., assignor of one-half to Philadelphia Specialty Company. Attachment for children's chairs	378,800	Feb. 28	2170	577	42	942
Moritz, Simon, St. Louis, Mo. Machine for rolling and unrolling cloth	391,637	Oct. 23	2032	550	45	419
Morlet, Charles, Hoboken, N. J. Balance-staff for watches	392,055	Oct. 30	2646	720	45	550
Morlet, Charles, assignor of one-half to P. Nordmaun, New York, N. Y. Watch-winding mechanism	387,247	Aug. 7	71	17	44	585
Morley Button Sewing Machine Company. (See Bennett, Walter E., assignor.)						
Morley Button Sewing Machine Company. (See Thompson, Rosewell, assignor.)						
Morley Button Sewing Machine Company. (See Woodward, Erastus, assignor.)						
Morley, Charles, <i>et al.</i> (See Biggin, Mary, assignor.)						
Morley, Charles C., Brooklyn, and H. C. Hinchcliff, New York, N. Y., assignors to said Morley. Globe for gas-burners	391,758	Oct. 23	2193	591	45	451
Morley, Howard, <i>et al.</i> (See Biggin, Mary, assignor.)						
Morley, Joseph D. (See Lamb and Morley.)						
Morley, Joseph D. (See Scott, Robert W., assignor.)						
Morley, Robert, and W. Greenwood, assignors to T. A. Pearce, Philadelphia, Pa. Manufacturing stockings	385,315	June 26	2223	569	43	1576
Morley, Samuel H., <i>et al.</i> (See Biggin, Mary, assignor.)						
Morlock, William H., and R. A. Haegelin, St. Joseph, Mo. Two-wheeled vehicle	385,720	July 10	581	150	44	120
Morningstar, Charles A. (See Gill and Morningstar.)						
Morrell, Albert W. (See Adams and Morrell.)						
Morrell, Albert W., assignor to Jenney Electric Company, Indianapolis, Ind. Ground-detector for electric-light circuits	389,758	Sept. 18	1458	382 } 112 }	44	1364
Morrell, John, Boston, Mass. Repairing-last	390,504	Oct. 2	436	113 }	45	88
Morrill, Amos M., Ravanna, Mo. Piston	379,711	Mar. 20	1250	332	42	1219
Morrill, Charles F., and D. C. Percival, Boston, Mass. Watch-case	384,380	June 12	817	212	43	1284
Morrill, Frank A., and H. M. Wilson, Somerset, Mass. Shoe-lace clasp	391,330	Oct. 16	1611	426	45	325
Morrin, Thomas F., Jersey City, N. J. Steam-generator	377,324	Jan. 31	2318	672 } 673 }	42	473
Morrin, Thomas F., Jersey City, N. J. Steam-generator	387,100	July 31	2616	687 } 688 }	44	539
Morrin, Thomas F., and W. F. Cosgrove, Jersey City, N. J. Apparatus for mixing aeriform fluids	385,873	July 10	812	215 } 216 }	44	165
Morris, Abraham, San Francisco, Cal. Combined chair seat and cushion	389,481	Sept. 11	1034	276	44	1276
Morris, Charles A., Bloomfield, N. J. Submarine excavator	391,331	Oct. 16	1612	426 } 427 }	45	325
Morris, David P., <i>et al.</i> (See Ammons, John B., assignor.)						
Morris, Edward R., San Francisco, Cal. Easel	384,171	June 5	490	134	43	1216
Morris, Edward W., <i>et al.</i> (See Gavin, Stephen J., assignor.)						
Morris, George, <i>et al.</i> (See Williams and Lucock, assignors.)						
Morris, George W., Pittsburg, Pa. Car-axle-box lid	379,712	Mar. 20	1251	334	42	1219
Morris, George W., Pittsburg, Pa. Die for making car-axle-box lids	385,194	June 26	2031	520	43	1537
Morris, George W., assignor to A. Watts, Brantford, Ontario, Canada. Machinery for operating steam-plows	385,520	July 3	278	72	44	56
Morris, George W., assignor to A. Watts, Brantford, Ontario, Canada. Grain-separator	394,001	Dec. 4	387	105	45	1145
Morris, George W., and W. H. Lawrence, Pittsburg, Pa. Car-axle-box lid	390,981	Oct. 9	1110	293	45	222
Morris, George W., and W. H. Lawrence, Pittsburg, Pa. Elliptic spring	393,569	Nov. 27	2043	535	45	1018
Morris, Henry G., Philadelphia, Pa. Crawler for electric and other conduits	383,756	May 29	2807	738	43	1087
Morris, Henry G., assignor to Grove Electric Company, Philadelphia, Pa. Electric meter	388,707	Aug. 28	2306	620	44	1035
Morris, Henry G., and P. G. Salom, Philadelphia, Pa. Filling secondary-battery plates	383,757	May 29	2808	738	43	1087
Morris, James P., Paris, Tex. Dental tool	384,863	June 19	1534	399	43	1429
Morris, John H. and T. D., Seward, Nebr. Lock-strike	380,266	Mar. 27	2077	576	42	1390
Morris, John H. and T. D., Seward, Nebr. Latch	386,554	July 24	1812	479	44	378
Morris, Joseph C., Azalia, Ind. Automatic grain-weighing machine	378,969	Mar. 6	150	44	42	996
Morris, Marion A. (See Lines and Morris.)						
Morris, Miles H. (See Thacher and Morris.)						
Morris, Nelson. (See Drueck, William R., assignor.)						
Morris, Nelson. (See Myers, William W., assignor.)						
Morris, Norman K., and W. West, Denver, Colo. Making white lead	389,591	Sept. 18	1207	316	44	1315
Morris, Richard, Blackheath, county of Kent, England. Magazine fire-arm	376,901	Jan. 24	1716	450	42	350
Morris, Stephen, <i>et al.</i> (See Gavin, Stephen J., assignor.)						
Morris, Thomas D. (See Morris, John H. and T. D.)						
Morris, Thomas J., St. Joseph, Mo. Gate	392,281	Nov. 6	153	39	45	623
Morris, Wade B. (See Warfield, Dunbar G., assignor.)						
Morris, William D. (See Thacher and Morris.)						
Morris, William E., Crutchfield, Ky. Cotton scraper and chopper	389,850	Sept. 18	1600	423	44	1392
Morrison, Caroline W., assignor of one-half to A. M. Lougee, Boston, Mass. Water-proof garment	376,720	Jan. 17	1436	378	42	289
Morrison, David A., Buffalo, N. Y. Automatic twine-holder	386,081	July 10	1091	293	44	223
Morrison, Gilbert B., Kansas City, Mo. System of warming and ventilating buildings	377,496	Feb. 7	222	53, 54	42	538
Morrison, John. (See Neil and Morrison.)						
Morrison, John R., assignor of one-half to J. Fowler, Glens Falls, N. Y. Making cuffs	394,592	Dec. 18	1293	339	45	1340



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Morrison, W. G. (See Gentry, William A., assignor.)						
Morrison, Wheeler M., assignor of one-half to D. O. Miller, Tower Hill, Ill. Horse-detacher	391,381	Oct. 16	1686	446	45	338
Morrison, William, Toronto, Ontario, Canada. Hot-air furnace	376,390	Jan. 10	933	244	42	187
Morrison, William N., St. Louis, Mo. Device for coupling cars	384,536	June 12	1042	271	43	1336
Morrissey, James, West Islip, N. Y. Bridge-bit	378,970	Mar. 6	152	44	42	906
Morrow Bros. Manufacturing Company. (See Morrow, James, assignor.)						
Morrow, Henry W., Wilmington, Del. Fastening for traveling-bags or valises	378,016	Feb. 14	1015	265	42	705
Morrow, James, assignor to Morrow Bros. Manufacturing Company, Washington Court-House, Ohio. Saddle-pad	383,821	May 29	2019	771	43	1108
Morrow, John O., Thomas Mills, Tenn. Saw-guide	381,635	Apr. 21	2007	526	43	426
Morrow, William L. (See Dorsey, Basil C., assignor.)						
Morse, Carrie, San Francisco, Cal. Adjustable crib-bedstead	378,455	Feb. 28	1676	439	42	815
Morse, Charles, Syracuse, N. Y. Charcoal-burning cooking-stove	388,435	Aug. 28	1918	512	41	961
Morse, Charles M. (See Weiss, Charles P., assignor.)						
Morse, David R., et al. (See Solano Remaldo, assignor.)						
Morse, Eugene H., et al. (See Doten, Clark W., assignor.)						
Morse, Everett F., Ithaca, N. Y. Vehicle spring and gear	383,974	June 5	199	58	43	1158
Morse, Frank B., Murphy's, Cal. Ore-concentrator	386,552	July 24	1810	478	41	378
Morse, Frank H., Savannah, Ga. Floor-board gage	386,553	July 24	1811	478	44	378
Morse, Frederick H., assignor of one-half to E. M. Starr, St. Louis, Mo. Cable-grip	385,195	June 26	2032	520	43	1538
Morse, George D., M. and D. W. Chase, Haverhill, Mass. Automatic salesman and change-maker	388,369	Aug. 21	1829	485	44	937
Morse, John H., Evanston, Ill. Railway safety-gate	393,342	Nov. 27	1845	486	45	977
Morse, Nolan, assignor of one-half to J. F. Crafts, Worcester, Mass. Wire wall-to	392,744	Nov. 13	835	212	45	762
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Dust-collector	377,719	Feb. 7	551	141	42	598
Morse, Orville M., assignor to Knickerbocker Company, Jackson, Mich. Bolting-reel	381,023	Apr. 10	1086	288	43	219
Morse, Preston C., Natick, Mass. Electric contact-changer	381,269	Apr. 17	1466	394	43	301
Morse, Preston C., Natick, Mass. Dental plugger	381,844	Apr. 24	2332	603	43	486
Morse, Robert A., Chicago, Ill. Passenger-vehicle	380,812	Apr. 10	763	209	43	160
Morton, Abner C., assignor of one-fourth to S. G. Morton, Chicago, Ill. Grate	382,720	May 15	1271	333	43	772
Morton, Charles E., Madisonville, Ky. Cultivator	390,506	Oct. 2	438	113	45	89
Morton, Charles E., Madisonville, Ky. Sash-lock	390,507	Oct. 2	439	113	45	89
Morton, Charles E., and S. F. Brown, Madisonville, Ky. Cutter and cutter-bar for mowers and reapers	377,464	Feb. 7	177	42	42	529
Morton, Charles E., and S. F. Brown, Madisonville, Ky. Cutter and cutter-bar	390,505	Oct. 2	437	113	45	89
Morton, Frederic C., Chelsea, Mass. Steam-engine	382,547	May 8	1016	259	43	712
Morton, James, Quidnick, R. I. Let-off mechanism for looms	385,279	June 26	2163	552	43	1565
Morton, James, Quidnick, R. I. Water-wheel governor	385,280	June 26	2165	553	43	1565
Morton, James, Quidnick, R. I. Let-off mechanism for looms	388,215	Aug. 21	1578	420	44	889
Morton, Matthew, Detroit, Mich. Portable key-seat cutter	390,306	Oct. 2	143	41	45	32
Morton, Samuel G. (See Morton, Abner C., assignor.)						
Morton, Samuel S., Lower Chancetford, assignor of one-half to H. W. McCall, York, Pa. Shingle-sawing machine	376,204	Jan. 10	684	181	42	140
Morton, Thomas M., Pittsburg, Pa. Railway-car heater	388,065	Aug. 21	1321	357	44	842
Morton, William F., assignor of one-half to Holcomb Brothers & Co., New Haven, Conn. Machine for compressing tenons	380,727	Apr. 10	636	175	43	136
Morton, William F., assignor of one-half to Holcomb Brothers & Co., New Haven, Conn. Forming compressed spoke-tenons	380,728	Apr. 10	640	177	43	137
Morton, William F., assignor of one-half to G. F. and H. S. Holcomb and H. B. Bigelow, New Haven, Conn. Spoke-tenon	381,270	Apr. 17	1468	391	43	301
Mortz, Joseph, assignor of one-half to F. S. Barney, Corry, Pa. Folding carriage-top	381,941	May 1	65	16	43	527
Mortz, Joseph, assignor of one-half to F. S. Barney, Corry, Pa. Carriage-top	381,945	May 1	66	16	43	527
Mortz, Joseph, assignor of one-half to F. S. Barney, Corry, Pa. Cartridge-loading machine	389,936	Sept. 25	1733	459	44	1425
Morwitz, Joseph. (See Pape, Anthony, assignor.)						
Moschowitz, Bernard, New York, N. Y. Stay for garments	386,714	July 24	2025	534	44	419
Moschowitz, Louis. (See Moschowitz, Schannu M., assignor.)						
Moschowitz, Louis, New York, N. Y. Pocket for garment stays	387,958	Aug. 11	1159	314	44	803
Moschowitz, Louis, New York, N. Y. Skirt-supporting spring	394,505	Dec. 18	1294	339	45	1340
Moschowitz, Schannu M., assignor to L. Moschowitz, New York, N. Y. Overcasting attachment for sewing-machines	380,047	Mar. 27	1776	475	42	1328
Moseley, Horace N., Elgin, Ill. Jeweler's ball-chuck	388,573	Aug. 28	2107	565	44	998
Moser, Edmund, Pittsburg, Kans. Machine for drilling and cutting coal	384,962	Sept. 11	914	239	44	1251
Moser, George H., assignor of one-half to C. R. Duke, Belleville, Ill. Watermelon-holder	379,993	Mar. 20	1564	412	42	1278
Moser, John, Perrysburg, Ohio. Apparatus for walling wells	386,928	July 31	2250	626	41	494
Moser, John M., et al. (See Gross, Magnus, assignor.)						
Moses, Otto A., New York, N. Y., assignor to Westinghouse Electric Company, Pittsburg, Pa. Self-exciting alternate-current electric generator	378,456	Feb. 28	1677	440	42	845
Moses, Otto A., New York, N. Y., assignor to Westinghouse Electric Company, Pittsburg, Pa. Manufacture of incandescent electric lamps	383,440	May 22	1891	493	43	904
Moses, William A., Nebraska, Va. Railway-joint	393,481	Nov. 27	1918	502	45	990
Mosher, Benjamin F. (See Stewart, George W., assignor.)						
Mosher, Charles D. (See Brown, Gilman W., assignor.)						
Mosher, Charles D., Amesbury, and G. W. Brown, West Newbury, Mass. Draft appliance for steam-boiler furnaces	390,508	Oct. 2	440	114	45	89
Mosher, George D., Birmingham, Conn. Snap-hook	376,040	Jan. 3	439	117	42	88
Moskovits, Caesarina. (See Moskovits, Maximilian H., assignor.)						
Moskovits, Maximilian H., assignor of one-half to C. Moskovits, Kansas City, Mo. Grate-bar	382,104	May 1	341	90	43	576
Moss, Allen A., Canton, Ohio. Harness-saddle	387,248	Aug. 7	72	17	44	585
Moss, Edmund S., Chicago, Ill. Builder's scaffold	378,102	Feb. 21	1133	296	42	736
Moss, James, and C. B. Hunt, London, England. Sewing-machine	389,094	Sept. 4	417	109	44	1152
Moss, John, Brooklyn, N. Y. Coin-controlled weighing-scale	387,565	Aug. 7	564	147	41	681
Mossberg, Frank, Pawtucket, R. I. Twist-drill grinding attachment	388,781	Aug. 28	2413	651	44	1056
Mossberg, Frank, Pawtucket, R. I. Twist-drill-grinding attachment	389,095	Sept. 4	419	110	44	1153

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page
Mosser, Ferdinand, New York, N. Y., assignor, by mesue assignments, to Hand Power Test Machine Company, of New Jersey. Coin-controlled cigar-delivering exercising-machine.	381,409	Apr. 17	1669	447	43	342
Mossop, William F., Philadelphia, Pa., assignor of one-half to M. M. Hirsh, Chicago, Ill. Convertible freight-car	381,410	Apr. 17	1671	448	43	342
Motea, Batist, Barson, assignor to W. R. Gaylord, San Joaquin County, Cal. Medical compound	387,313	Aug. 7	173	.....	44	604
Motherwell, David. (See Comly and Motherwell.)						
Motherwell, David, and E. B. Comly, Logan, Ohio. Cultivator	383,186	May 22	1952	512	43	916
Mott, Charles S., Patchogue, assignor to himself and G. H. Shaffer, Brooklyn, N. Y. Mast-hoop	383,586	May 29	2554	675	43	1035
Mott, Charles S., Patchogue, assignor to himself and G. H. Shaffer, Brooklyn, N. Y. Mast-hoop	391,548	Oct. 23	1918	515	45	394
Mott, E. Hicks, <i>et al.</i> (See Gallup, Egbert H., assignor.)						
Mott, E. Hicks, Oneida, N. Y. Device for moving barrels	382,618	May 8	1125	290	43	734
Mott, Ferris O. (See Lockwood, William W., assignor.)						
Mott Iron Works, J. L. (See Butler, Theodore, assignor.)						
Mott Iron Works, J. L. (See Demarest, John, assignor.)						
Mott Iron Works, J. L. (See Reid, John, assignor.)						
Mott, John, Buffalo, assignor to R. L. Mott, Oneida, N. Y. Window-bead fastener	394,285	Dec. 11	822	218	45	1238
Mott, Robert L. (See Mott, John, assignor.)						
Mott, Samuel D., New York, N. Y., assignor to Schuyler Electric Company, Middletown, Conn. Electric meter	381,480	Apr. 17	1779	474	43	363
Mott, Samuel R., Jr., Bouckville, N. Y. Neck-yoke	393,918	Dec. 4	273	74	45	1124
Mott, Walter L., <i>et al.</i> (See Gallup, Egbert H., assignor.)						
Motz, Friedrich, Elizabethport, N. J. Calipers and dividers	395,167	Dec. 25	2243	576	45	1530
Monat, John D., Detroit, Mich. Sectional boiler	388,370	Aug. 21	1831	486	44	938
Moulton, Edward M. and M., Rochester, N. Y.; said M. Moulton assignor to said Edward M. Moulton. Clock	389,852	Sept. 18	1606	424	44	1393
Moulton, Ernest G., Holland, Vt. Hub for vehicle-wheels	390,613	Oct. 2	573	153	45	115
Moulton, Frank W., Washington, D. C. Calendar	376,391	Jan. 10	934	245	42	188
Moulton, James N., Haverhill, Mass. Horn for shoe-sewing machines	392,629	Nov. 13	673	168	45	730
Moulton, Mark. (See Moulton, Edward M. and M.)						
Monsam Manufacturing Company. (See Frost, Walter E., assignor.)						
Monssean, Edward. (See Millen and Monssean.)						
Mower, Jacob K. (See Normand, Joseph M., assignor.)						
Mower, Thomas S., Fitchburg, Mass. Cutter for cutting gear-teeth	390,982	Oct. 9	1111	293	45	222
Mowry, Levi G., Buffalo, N. Y. Detachable draft-frame for vehicles	381,481	Apr. 17	1781	475	43	363
Moxham, Arthur J., Johnstown, Pa. Rolls for rolling girder-rails	378,209	Feb. 21	1295	343 344	42	766
Moxham, Arthur J., Johnstown, Pa. Rolls for rolling girder-rails	378,210	Feb. 21	1296	343 344	42	766
Moxham, Arthur J., Johnstown, Pa. Rolls for rolling flangeless center-bearing rails	378,211	Feb. 21	1297	344	42	767
Moxham, Arthur J., Johnstown, Pa. Grooved girder-rail	383,001	May 15	1657	433	43	848
Moxham, Arthur J., Johnstown, Pa. Double-grooved girder-rail	383,002	May 15	1659	434	43	849
Moxham, Arthur J., Johnstown, Pa. Acute curve-crossing	383,003	May 15	1660	434	43	849
Moxham, Arthur J., Johnstown, Pa. Straightening slot-sails	385,818	July 10	723	189	44	149
Moxham, Arthur J., Johnstown, Pa. Movable-tongue switch for street-railways	388,994	Sept. 4	269	71	44	1124
Moxham, Arthur J., Johnstown, Pa. Rolling slot-rails for cable railways	388,995	Sept. 4	270	71, 72	44	1125
Moxham, Arthur J., Johnstown, Pa. Rail and rail-joint for street-railways	391,549	Oct. 23	1919	515 516	45	395
Moxham, Arthur J., Johnstown, Pa. Machine for rolling girder-rails	391,550	Oct. 23	1920	516	45	395
Moxham, Arthur J., Johnstown, Pa. Railway turn-table	391,551	Oct. 23	1921	517	45	395
Moxham, Arthur J., Johnstown, Pa. Two-part girder-rail	391,552	Oct. 23	1922	517	45	396
Moxham, Arthur J., Johnstown, Pa. Rail and rail-chair for girder-rails	391,553	Oct. 23	1923	518	45	396
Moxham, Arthur J., Johnstown, Pa. Brace-chair for girder-rails	394,078	Dec. 4	499	134	45	1167
Moxham, Arthur J., Johnstown, Pa. Rail-chair for girder-rails	394,079	Dec. 4	499	134	45	1167
Moxham, Arthur J., Johnstown, Pa. Expansion-joint for railway-track rails	395,248	Dec. 25	2374	608	45	1553
Moxham, Arthur J., Johnstown, Pa. Portable passing-switch for railways	395,249	Dec. 25	2375	608	45	1553
Moxley, John T., Owosso, Mich. Animal-trap	379,713	Mar. 20	1252	334	42	1219
Moyer, Aaron J., Springfield, Ohio. Machine for swaging together the parts of an iron picket fence	379,321	Mar. 13	666	180 181	42	1097
Moyer, Aaron J., Springfield, Ohio. Lawn-mower	392,282	Nov. 6	154	39, 40	45	623
Moyer, Harvey A., Syracuse, N. Y. Two-wheeled vehicle	378,057	Feb. 14	1066	279	42	715
Moyer, Henry L., and G. W. Youlls, Shickshinney, Pa. Roller-journal for car-axles	377,836	Feb. 14	761	194	42	654
Moyers, James M. (See Loyall and Moyers.)						
Mucke, Alfred. (See Whiting, Louis R., assignor.)						
Mucke, M. Richards, Jr., Philadelphia, Pa. Underground conduit for electrical conductors	378,801	Feb. 28	2171	577	42	942
Mucke, M. Richards, Jr., Philadelphia, Pa. Man-hole chamber for underground electrical conduits	378,802	Feb. 28	2173	578	42	943
Mucke, M. Richards, Jr., Philadelphia, Pa. Underground conduit	379,408	Mar. 13	789	212 213	42	1121
Mucke, Mark R., Jr., and W. B. Teamer, Philadelphia, Pa.; said Teamer assignor to said Mucke. Cover for man-hole chambers of underground conduits	392,877	Nov. 13	1031	265	45	802
Mueller, Alois, Neillsville, Wis. Washing-machine	388,996	Sept. 4	271	72	44	1125
Mueller, Charles M. (See Hirschheimer and Mueller.)						
Mueller, Emil T., La Crosse, Wis. Slate for telephone-desks	381,271	Apr. 17	1469	395	43	301
Mueller, Henry E., Pittsburg, Pa. Coloring glassware	382,105	May 1	342	90	43	576
Muench, Robert, Chicago, Ill. Night-latch	381,162	Apr. 17	1314	351	43	272
Muir, John S., San Francisco, Cal. Electro-medical apparatus	386,754	July 24	2082	548	44	429
Muldoon, John F., Waltham, Mass. Circular-knitting machine	392,449	Nov. 6	407	101	45	671
Mulhall, James J., assignor to J. O'Hagan, Jr., Albany, N. Y. Railway-rail joint	384,061	June 5	328	93	43	1183
Mulholland, William E., Portland, Ore. Harmonica-holder	385,473	July 3	207	54	44	42
Mulholland, Richard, Dunkirk, N. Y. Vehicle-gear-iron	375,765	Jan. 3	59	18	42	16
Mulholland, Richard, Dunkirk, N. Y. Vehicle-spring	384,381	June 12	818	212	43	1284
Mulkey, Elijah F. (See Mason, Mulkey, and Houston.)						
Mull, William H., assignor to J. M. Zook, Lawrence, Kans. Sad-iron	381,572	Apr. 24	1917	505	43	408
Mullan, John. (See Frazer, William H., assignor.)						
Mullen, James B., Rochester, N. Y. Last	381,845	Apr. 24	2324	603	43	487
Müller, Antoine, Terre Haute, Ind. Car-coupling	380,585	Apr. 3	422	120	43	86
Müller, Carl F., Boston, Mass. Oboe or English horn	392,521	Nov. 6	503	126	45	690
Müller, Charles, San Francisco, Cal. Time-ball	384,996	June 26	1721	447	43	1475
Müller, Emanuel, New York, N. Y. Self-setting time-piece	392,056	Oct. 30	2648	720	45	550
Müller, Frank, Philadelphia, Pa. Eyeglasses	392,522	Nov. 6	505	126	45	691

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Müller, Friederich, Elizabeth, N. J. Lathe-chuck	385,474	July 3	208	54, 55	44	42
Müller, Moritz A., Newark, N. J., assignor to United States Electric Lighting Company, New York, N. Y. Armature for dynamos	381,636	Apr. 24	2009	527	43	426
Müller, Philip, New York, N. Y. Filter	395,291	Dec. 25	2433	626	45	1565
Müller, Teile H., New York, N. Y. Centrifugal machine	387,801	Aug. 14	905	234 235	44	753
Mullica, Benjamin F. (See Mullica, John and B. F.)						
Mullica, John and B. F., Williamstown, assignors of one-half to J. P. Stanger and H. Rowen, Glassborough, N. J. Incrustation preventive	380,340	Apr. 3	48		43	12
Mulliken, A. Henry. (See Black, Henry A., assignor.)						
Mulliken, A. Henry, <i>et al.</i> (See Bowen, David, assignor.) (Reissue.)						
Mulliken, A. Henry, Chicago, Ill. Signal-lantern	386,715	July 24	2027	534	41	420
Mullins, Benjamin G., Lancaster, Ky. Weight-motor	389,713	Sept. 18	1399	366	44	1351
Mullins, George G., Los Angeles, Cal., assignor to Mullins Silicated Iron and Steel Company, East St. Louis, Ill. Making iron castings	393,443	Nov. 27	1846		45	978
Mullins, Richard, Newark, Ind. Tricycle	381,504	Apr. 17	1819	481	43	371
Mullins Silicated Iron and Steel Company. (See Mullins, George G., assignor.)						
Mulvaney, John J., Jr. (See Corkings and Mulvaney.)						
Mulvey, James W., Jonesville, Ind. Hoe-cultivator	384,267	June 12	639	172	43	1252
Mumford, Joseph A., Hantsport, Nova Scotia, Canada. Steam-boiler	382,657	May 8	1184	306	43	746
Muncaster, Walter J., assignor of one-half to M. McKaig, Cumberland, Md. Machine for straightening shafting	388,574	Aug. 28	2108	565 566	41	998
Muncey, Aaron S. (See Merriss and Muncey.)						
Munroe Skewer Company. (See McNutt, Lindsay B., assignor.)						
Mundell, Harris, assignor of one-half to R. Brown, Royalton, Minn. Hair-picker	390,694	Oct. 9	690	181	45	145
Mundell, Josephus N., Hart, Mich. Potato-digger	394,659	Dec. 18	1403	366	45	1360
Mundt, Lebrecht, Berlin, Germany. Manufacture of artificial-stone collars	382,824	May 15	1410	370	43	800
Mundy, Charles H., <i>et al.</i> (See Patten, Jefferson, assignor.)						
Mundy, James A. (See Keating, Charles J., assignor.)						
Mundy, Lebbeus, Morgan, Kans. Fender for horse-rakes	378,103	Feb. 21	1136	297	42	737
Mungen, John J., assignor to Fleming Manufacturing Company, Fort Wayne, Ind. Road-grader	389,851	Sept. 18	1602	423	41	1392
Munger, Dexter S., assignor of one-half to C. E. Price, Stoneham, Mass. Horse-checking device	387,176	July 31	2740	718	41	560
Munger, Dexter S., and C. E. Price, Stoneham, Mass. Horse-checking device	387,175	July 31	2737	718	41	560
Munger, Ernest A., assignor to G. E. Swan, Beaver Dam, Wis. Spring-heel	380,507	Apr. 3	300	87	43	61
Munger, Ernest A., assignor to G. E. Swan, Beaver Dam, Wis. Elastic or spring heel	380,508	Apr. 3	303	88	43	61
Munger, Eugene H., New York, N. Y. Support for shade-rollers	381,714	Apr. 24	2121	555	43	449
Munger, Fred, Alliance, Nebr. Plow-sharpener	395,292	Dec. 25	2434	626	45	1565
Munger, George, East River, Conn. Wick	389,822	May 29	2920	771	43	1108
Munger, Robert S., Dallas, Tex. Cotton-press	394,125	Dec. 4	564	152	45	1159
Mungiven, James M., Brooklyn, assignor to S. A. Isley, New York, N. Y. Revolving brush for washing tumblers, &c.	387,728	Aug. 14	810	209	41	734
Municipal Signal Company. (See Martin, Morris, assignor.)						
Municipal Signal Company. (See Wilson, John C., assignor.)						
Munro, Robert H., Moline, Ill. Drop-reach for buggies	389,821	Sept. 18	1542	408	44	1381
Munro, William F. (See Clarke, Reuben, assignor.)						
Munroe, Frederick W., Salem, Mass. Sole for boots or shoes	379,023	Mar. 6	239	67	42	1111
Munroe, Thomas, and H. Park, Muskegon, Mich. Refuse-burner	389,403	Sept. 11	917	239	41	1254
Munroe, Thomas W., San Francisco, Cal. Automatic station-indicator for railway-cars	388,371	Aug. 21	1833	487	41	938
Munroe, Thomas W., San Francisco, assignor of two-thirds to H. B. Berryman, Berkeley, Cal. Station-indicator	380,341	Apr. 3	48	17	43	12
Munschaner, George J., <i>et al.</i> (See Stark, Michael J., assignor.)						
Munsey, Horace W., Chester, Pa. Attachment for bedsteads	379,409	Mar. 13	791	213	42	1122
Munsing, George D., Minneapolis, Minn. Knit fabric	391,005	Oct. 9	1150	304	45	230
Munsing, George D., Minneapolis, Minn. Knit undershirt, &c.	391,006	Oct. 9	1152	304	45	231
Munsing, George D., Minneapolis, Minn. Knit drawers	391,007	Oct. 9	1153	304	45	231
Munson, Harvey S., New Haven, Conn. Knockdown box	377,813	Feb. 14	730	184	42	648
Munson, Harvey S., New Haven, Conn. Box	390,307	Oct. 2	146	41	45	32
Munton, James, Maywood, Ill. Making tires	381,505	Apr. 17	1821	422	43	372
Munton, James, Maywood, Ill. Making car-wheels	390,695	Oct. 9	691	184	45	145
Muntz, Oliver H., Greenville, Pa. Horse-tail holder	385,721	July 10	582	151	41	121
Munz, Theodore C., assignor of one-half to W. H. Eldridge and F. Hubbard, Toledo, Ohio. Making axles of sheet metal	383,188	May 22	1954	513	43	916
Munz, Theodore C., assignor of one-half to W. H. Eldridge and F. Hubbard, Toledo, Ohio. Running-gear for vehicles	383,409	May 22	2285	606 607	43	576
Muraine, Edward, Huron, Dak. Ter. Plow	376,543	Jan. 17	1160	305	42	237
Murchison, Roderick I. (See Taylor, Murchison, and Sharpe.)						
Murdoch, George D., Brooklyn, N. Y. Bolt	380,813	Apr. 10	764	210	43	160
Murdoch, Adna C., Dedham, assignor of one-half to J. H. Beale, Boston, Mass. Shoe-lace fastener	376,041	Jan. 3	410	117	42	88
Murdoch, Charles F., assignor of one-half to J. K. Webster, Detroit, Mich. Dynamometer	380,294	Mar. 27	2112	565	42	1396
Murdoch, Fredrick A., Auburn, assignor to D. M. Osborne & Company, New York, N. Y. Grain-binder	378,845	Feb. 28	2249	598 599	42	957
Murdoch, George J., New York, N. Y. Sad iron	379,504	Mar. 20	1388	369	42	1216
Murdoch, Herman E., assignor of one-half to S. A. Christie, Waltham, Mass. Cannon-pin for watches	389,663	Sept. 18	1325	346	41	1336
Murdoch, Horace B., assignor to American Injector Company, Detroit, Mich. Injector. (Reissue.)	10,971	Dec. 4	601	162	45	1167
Murdoch, James R. (See Walter, Hugo, assignor.)						
Murdoch, Thomas J., Lawrence, Mass. Bobbin and cop builder for yarn-winding machines	393,717	Nov. 27	2265	591	45	1061
Murdoch, William C., Washington, D. C., assignor to National Vulcanite Company, New York, N. Y. Vulcanite paving compound	391,126	Dec. 4	566		45	1159
Murphey, Frank P., assignor of one-half to W. D. Chamberlain, Decatur, Ill. Corn-planter	381,883	Apr. 24	2381	618 619 620	43	497
Murphy, Albert L., Philadelphia, Pa. Uniting pipe-sections.	376,750	Jan. 24	1481	390	42	307
Murphy, Albert L., assignor of one-half to J. Lukens, Conshohocken, Pa., and J. Waldron, New Brunswick, N. J. Preparing tube-skelps for handling	376,780	Jan. 24	1538	405	42	317
Murphy, Daniel H., Hartford, Conn. Cuspidor	378,610	Feb. 28	1890	500	42	899
Murphy, Daniel H., Hartford, Conn. Tea or coffee service	380,048	Mar. 27	1781	476	42	1329
Murphy, Daniel H., Hartford, Conn. Cuspidor	390,614	Oct. 2	574	152 153	45	115

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Murphy, Daniel R., assignor of one-half to M. L. Painter, Greensburg, Pa. Apparatus for cooling coke .....	394,127	Dec. 4	568	152	45	1180
Murphy, Edward J., and J. Floyd, Lynchburg, Va. Electro-therapeutic battery .....	383,899	June 5	75	22	43	1135
Murphy, Francis, Chicago, Ill. Ventilating apparatus .....	381,078	Apr. 10	1182	311	43	238
Murphy, Francis, Chicago, Ill. Combined fan-blower and induction apparatus .....	387,177	July 31	2742	719	41	560
Murphy, Francis, Chicago, Ill. Fan-blower and induction apparatus .....	387,178	July 31	2746	719	41	561
Murphy, Hugh A., Elk City, Kans. Harrow for listed crops .....	378,611	Feb. 23	1891	501	42	890
Murphy, Hugh J., assignor of one-half to H. Edwards, Lowell, Mass. Sash-fastener .....	378,515	Feb. 28	1753	463	42	863
Murphy, J. F. (See Harley, John, assignor.) .....						
Murphy, James A., Holyoke, Mass. Ash-sifter .....	379,322	Mar. 13	668	181	42	1098
Murphy, James B. (See Bynon, John R., assignor.) .....						
Murphy, John, Columbus, Ohio. Hydraulic cement .....	382,376	May 8	753		43	662
Murphy, John, Brooklyn, N. Y. Machine for manufacturing rubber belting. (Reissue) ..	10,338	June 12	1137	299	43	1344
Murphy, John, Brooklyn, N. Y. Hose-winding apparatus .....	391,908	Oct. 30	2431	657	45	508
Murphy, John H., Merrimac, Mass. Dash-screen for vehicles .....	384,997	June 26	1723	447	43	1475
Murphy, John M., New York, N. Y. Method of and means for scaling and climbing the walls of buildings, &c .....	395,071	Dec. 25	2077	537	45	1501
Murphy, John M., New York, assignor to Leo Hotel Fire Escape Company, Poughkeepsie, N. Y., and F. H. Beecher, Seymour, Conn. Fire-escape .....	390,308	Oct. 2	148	41	45	33
Murphy, John P. (See Ingraham, James F., assignor.) .....						
Murphy, Joseph, Albany, Mo. Flood-gate .....	386,436	July 17	1623	427	44	335
Murphy, Junius A. (See Murphy, Marcus T. and J. A.) .....						
Murphy, Lawrence E. and P., St. Paul, Minn. Lifting-jack .....	391,382	Oct. 16	1687	446	45	338
Murphy, Marcus T. and J. A., New Orleans, La. Frame for use in the manufacture of oil-press mats .....	381,272	Apr. 17	1470	395	43	301
Murphy, Matthew H., Portland, Oreg. Fruit-ladder .....	380,763	Apr. 10	696	192	43	148
Murphy, Michael W., Whitehall, N. Y. Pump-valve .....	378,846	Feb. 28	2250	599	42	957
Murphy, Patrick. (See Murphy, Lawrence E. and P.) .....						
Murphy, Starr J., Montclair, N. J. Shelf .....	388,066	Aug. 21	1322	358	41	843
Murphy, Thomas J., assignor of one-half to R. Potter, New York, N. Y. Rock-drilling machine .....	383,063	May 15	1772	458	43	871
Murphy, Thomas J., assignor of one-half to R. Potter, New York, N. Y. Tripod for rock-drilling machines .....	383,064	May 15	1774	459	43	871
Murphy, Thomas M. (See Holliday, Thomas, assignor.) .....						
Murphy, William H. (See Keating, Robert M., assignor.) .....						
Murphy's Sons, William F. (See Neel, William W., assignor.) .....						
Murray, Charles H., assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Hydraulic operating mechanism for breech-loading ordnance ..	377,904	Feb. 14	853	213	42	672
Murray, Charles H., assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Hydraulic operating mechanism for ordnance .....	377,905	Feb. 14	856	219	42	673
Murray, Charles H., assignor to W. G. Armstrong, Mitchell & Co., (limited,) Elswick Works, Newcastle-upon-Tyne, England. Apparatus for loading heavy guns .....	380,688	Apr. 10	583	160	43	126
Murray, Charles H., assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Apparatus for conveying ammunition to guns .....	381,715	Apr. 24	2125	555	43	449
Murray, Charles H., assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Means for controlling hydraulic apparatus for training heavy guns ..	382,377	May 8	753	189	43	662
Murray, Charles T. (See Louis and Murray.) .....						
Murray, Charles T., Kansas City, Mo. Stereotype-finishing machine .....	394,594	Dec. 18	1295	339	45	1340
Murray, Daniel, Salem, Mass. Thill-coupling .....	377,861	Feb. 14	789	201	42	660
Murray, Daniel B., Youngstown, Ohio. Buggy-seat .....	375,888	Jan. 3	214	59	42	46
Murray, Donald J., Wausau, Wis. Adjustable saw-guide .....	385,131	June 26	1942	496	43	1520
Murray, Edward M., Cedar Rapids, Iowa. Button-attaching machine .....	389,237	Sept. 11	673	172	41	1207
Murray, Edward M., Cedar Rapids, Iowa. Machine for connecting button shanks and fasteners .....	389,238	Sept. 11	680	173	41	1207
Murray, Eli, assignor to Rushville School Furniture Company, Rushville, Ind. School-desk .....	385,316	June 26	2225	570	43	1576
Murray, George H., Chicago, Ill. Fertilizing composition .....	377,084	Jan. 31	1182		42	409
Murray, James, Wallula Junction, Wash. Ter. Metallic rod-packing .....	386,786	July 24	2133	560	41	439
Murray, John, St. Louis, Mo. Nose-bag support for vehicles .....	383,823	May 29	2920	771	43	1108
Murray, John, Conshohocken, Pa. Combined square, miter, and try-square .....	386,487	July 24	1705	451	41	550
Murray, John A., Tucson, Ariz. Ter. Pump .....	384,706	June 19	1301	341	43	1385
Murray, John J., Philadelphia, Pa. Handle for soldering-irons .....	393,444	Nov. 27	1847	47	45	178
Murray, Patrick F., and J. F. Cooney, Syracuse, N. Y. Tap valve for barrels .....	387,802	Aug. 14	908	235	41	753
Murray, Peter, Jr., Newark, N. J. Rotary fan .....	377,573	Feb. 7	329	85	42	558
Murray, Samuel J., assignor to Russell & Morgan Printing Company, Cincinnati, Ohio. Machine for punching cards .....	381,716	Apr. 24	2127	557	43	450
Murray, William B., assignor to N. Underwood, Jr., and E. D. MacDonald, Minneapolis, Minn. Combined fire and burglar alarm .....	383,216	Aug. 21	1581	421	44	890
Murray, William H., and G. Williams, Roseville, Cal. Traveling thrasher .....	392,057	Oct. 30	2651	721	45	550
Murrell, Henry G., New York, N. Y. Overhead track .....	377,044	Jan. 31	1909	502	42	335
Muser, Joseph, New York, N. Y. Guard-railing .....	380,657	Apr. 3	525	115	43	106
Muser, Joseph, New York, N. Y. Pneumatic door-check .....	392,927	Nov. 13	1097	284	45	814
Musgrove, Charles M., Pittsfield, Mass. Knitting-machine for knitting rib-tops .....	389,592	Sept. 18	1208	316	44	1315
Musick, John U. (See Andrews, Willard J., assignor.) .....						
Muspratt, Edmund K., Seaforth Hall, near Liverpool, county of Lancaster, and G. Eschellmann, Northwich, county of Chester, England. Manufacture of sodium-chlorate ..	388,217	Aug. 21	1582		44	890
Muspratt, Edmund K., Seaforth Hall, near Liverpool, county of Lancaster, and G. Eschellmann, Northwich, county of Chester, England. Manufacture of potassium chlorate ..	388,997	Sept. 4	273	285	44	1125
Mussetter, Joseph A., Paintersville, Ohio. Corn-planter .....	392,928	Nov. 13	1098	286	45	814
Mussinan, Oscar, Jr., assignor to E. Faber, New York, N. Y. Pencil .....	382,488	May 8	925	235	43	694
Mussinan, Oscar, Jr., assignor to E. Faber, New York, N. Y. Pencil .....	386,891	July 31	2324	611	44	433
Mussinan, Oscar, Jr., assignor to E. Faber, New York, N. Y. Pencil .....	386,892	July 31	2325	611	44	433
Muterspaugh, Andrew R., Shepherd, Mich. Horseshoe-nail .....	378,935	Mar. 6	108	31	42	927
Muther, Lorenz, Chicago, Ill., assignor to Union Special Sewing Machine Company, New York, N. Y. Needle for sewing-machines .....	393,119	Nov. 20	1376	359	47	876

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Mutimer, Frederick, assignor of one-half to Rockford Bolt Works, Rockford, Ill. Manufacturing bolts	376,673	Jan. 17	1364	358	42	275
Mutimer, Frederick, assignor of one-half to Rockford Bolt Works, Rockford, Ill. Bolt-heading die	378,936	Mar. 6	109	31	42	287
Mutton, James, Frisco, Utah Ter. Car-brake	392,743	Nov. 13	835	212	45	762
Mutual Electric Manufacturing Company <i>et al.</i> (See Knowles, Edward R., assignor.)						
Mutual Lathing Machine Company. (See Grandy and Copeland, assignors.)						
Myer, Willard F., assignor to D. Tullock, New York, N. Y. Mold for casting teeth of diamond saws	387,986	Aug. 14	1194	321	41	809
Myers, Abraham A., Lancaster, Pa. Lime-val agitator	386,488	July 21	1406	451	44	359
Myers, Adolph, Birmingham, county of Warwick, England. Holder for pencils	378,897	Mar. 6	55	16	42	977
Myers, Charles K., Stockton, Cal. Traveling thrasher	380,342	Apr. 3	50	18	43	12
Myers, F. E., <i>et al.</i> (See Beer, Thomas M., assignor.)						
Myers, Francis E. (See Myers, Philip A., assignor.)						
Myers, Frederick, Liverpool, county of Lancaster, England. Stave shaping and gaging machine	385,678	July 3	515	133	41	100
Myers, Frederick G., East Boston, Mass. Car-wheel	384,924	June 19	1617	420	43	1145
Myers, Garson, assignor to Adams & Westlake Company, Chicago, Ill. Oil-stove	384,382	June 12	819	213	43	1284
Myers, Harry A., Franklin, Pa. Vehicle-spring	376,104	Jan. 19	531	141	42	113
Myers, Henry, Philadelphia, Pa. Spring bed-bottom	384,925	June 19	1618	420	43	1145
Myers, Henry, Philadelphia, Pa. Ticket-punch	386,437	July 17	1624	427	41	335
Myers, Henry, Philadelphia, Pa. Stove-door	392,630	Nov. 13	674	163	45	730
Myers, Henry M. (See Johnston, James J., assignor.)						
Myers, Henry M., Beaver Falls, Pa. Making shovel-blanks	385,819	July 10	724	189	41	149
Myers, Henry M., Beaver Falls, Pa. Machine for cutting shovel-blanks	385,820	July 10	725	189	41	149
Myers, Henry M., Beaver Falls, Pa. Making shovel-blanks	385,821	July 10	726	190	41	149
Myers, Henry M., Beaver Falls, Pa. Machine for splitting the tangs of shovel-blanks	389,239	Sept. 11	682	173	41	1209
Myers, John A., Louisville, Ky. Fan	387,596	Aug. 7	616	160	44	690
Myers, Julius F. (See Connett, Elma E., assignor.)						
Myers, Lewis B., Fremont, Ohio. Pencil	384,383	June 12	820	213	43	1284
Myers, Lewis B., Fremont, Ohio. Pencil-holder	386,787	July 24	2134	561	44	439
Myers, Lewis Y., Canton, Ohio. Hay-carrier track	394,991	Dec. 25	1967	507	45	1478
Myers, P. A., <i>et al.</i> (See Beer, Thomas M., assignor.)						
Myers, Philip A., assignor of one-half to F. E. Myers, Ashland, Ohio. Deep-well pump	384,585	June 12	1114	295	43	1340
Myers, Philip A., assignor of one-half to F. E. Myers, Ashland, Ohio. Pump	393,311	Nov. 20	1652	436	45	931
Myers, Samuel, and M. H. Wittel, Manheim, Pa. Sash-holder	385,368	July 3	41	13	44	11
Myers, William, Portland, Ind. Veterinary instrument	389,664	Sept. 18	1326	647	41	1336
Myers, William M., and A. Smith, Cosby, Mo. Clip for whittletrees	383,900	June 5	76	22	43	1135
Myers, William R., Haddonfield, N. J., assignor to F. E. Swope, Philadelphia, Pa., and J. V. Lafferty, Cape May, N. J. Fire-kindler	393,570	Nov. 27	2045	536	45	1018
Myers, William W., assignor to N. Morris, Chicago, Ill. Stock-car	391,759	Oct. 23	2194	592	45	451
Mylius, Adelbert, assignor to J. R. Geigy, Basle, Switzerland. Production of a new red azo color	376,392	Jan. 10	935		42	188
Myré, Martheineus, and C. Christofferson, Winona, Minn. Bridge-gate	386,154	July 17	1210	322	44	252
Myrick, Samuel J., Helix, Oreg. Grain-header	391,383	Oct. 16	1688	446	45	339
Myrick, Thomas N., Brooklyn, N. Y. Scarf-holder	389,317	Sept. 11	794	202	44	1231
Myrtle Oil Company. (See Krieser, J. Moritz, assignor.)						
Naamlooze Veruootschap Westeer-Suiker-Raffinaderij. (See Freitag, Andreas, assignor.)						
Naecke, Arnold, Philadelphia, Pa. Metallic frame for glass panels	390,794	Oct. 9	829	221	45	171
Nachmann, Henry, Cincinnati, Ohio. Washing-machine	380,814	Apr. 10	765	210	43	160
Nachmaschinen-Fabrik, vormals Frister & Rossmann, Actien-Gesellschaft. (See Reinmann, George, assignor.)						
Nagel, Albert G., Forman, Dak. Ter. Windmill	387,102	July 31	2618	629	44	540
Nagel, August C., R. H. Kaemp, and A. W. F. G. Linnenbrügge, Hamburg, Germany. Apparatus for heating and steaming comminuted materials	393,023	Nov. 20	1248	324	45	851
Nagle, Augustus F., Chicago, Ill. Automatic fire-extinguishing apparatus	387,179	July 31	2750	720	44	561
Nagle, Robert J. See Arthur, Thomas, assignor.)						
Nally, Thomas, assignor of one-half to J. Phelan, Lynn, Mass. Boot or shoe upper	378,898	Mar. 6	56	16, 17	42	977
Napier, James L. (See Drake, Zachariah J., assignor.)						
Napier, James L. (See McCall and Napier.)						
Napier, William D., assignor of one-half to T. J. Perry, Mountain Home, Ark. Tongue-support	394,932	Dec. 18	1871	484	45	1451
Nash, Albert M., Owego, N. Y. Plow	380,919	Apr. 10	929	248	43	190
Nash, Andrew O., Newark, N. J. Cylinder-printing-machine	387,249	Aug. 7	73	17, 18	44	585
Nash, Charles D., <i>et al.</i> administrators. (See Merritt, Edward.)						
Nash, Edgar P., assignor of one-fourth to R. W. C. Gregg, Batavia, Ohio. Street-cleaner	379,875	Mar. 20	1520	400	42	1270
Nash, Frank G., San Francisco, Cal. Game-counter	384,707	June 19	1306	341	43	1385
Nash, Henry K. (See Hayes and Nash.)						
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Mechanical movement	378,847	Feb. 28	3251	599	42	957
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Water-meter with rotating piston	379,805	Mar. 20	1390	370	42	1247
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Connecting-rod	379,896	Mar. 20	1396	371	42	1247
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Gas-engine	386,208	July 17	1276	340	44	265
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Operating gas-engines	386,209	July 17	1284	342	44	267
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Gas-engine	386,210	July 17	1291	343	44	267
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Gas-engine	386,211	July 17	1296	344	44	268
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Ignitor for gas-engines	386,212	July 17	1299	345	44	268
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Ignitor for gas-engines	386,213	July 17	1301	345	44	269
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Igniting the charges in gas-engines	386,214	July 17	1304	346	44	269
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Ignitor for gas-engines	386,215	July 17	1308	346	41	270
Nash, Lewis H., Brooklyn, assignor to National Meter Company, New York, N. Y. Ignitor and supply-valve for gas-engines	386,216	July 17	1312	347	44	271



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.g.	Vol.	Page.
Nash, Mary O., Abington, Mass. Tart cutter.....	388,904	Sept. 4	151	40	44	1101
Nash, Nathan E., Westerly, R. I. Steam-engine governor.....	391,422	Oct. 23	1741	465	45	357
Nason, Albert D., <i>et al.</i> (See Bray, Morris P., assignor.)						
Nason, Edward G. (See Cooley and Nason.)						
Nason, William C., North Waterborough, Me. Wagon.....	393,718	Nov. 27	2267	595	45	1062
Nathan, Dohrman & Co. (See Brown, William E., assignor.)						
Nathan Manufacturing Company. (See Ruddy and Kaczander, assignors.)						
National Brake-Block Company. (See Rickenbacher, Paul P., assignor.)						
National Cash Register Company. (See Heady and Patterson, assignors.)						
National Cash Register Company. (See Patterson and Davis, assignors.)						
National Cash Register Company. (See Patterson and Heady, assignors.)						
National Electric Company. (See O Beirne, Edward J., assignor.)						
National Electric Conduit Company. (See Kames, Joshua, assignor.)						
National Galvanic Battery Company. (See Walter, Hugo, assignor.)						
National Galvanic Battery Company. (See Walter and Marsh, assignors.)						
National Heating Company. (See Abbot and Knaak, assignors.)						
National Heating Company. (See Canfield, William W., assignor.)						
National Heating Company. (See Prall, William E., assignor.)						
National Heating Company. (See Prall, William E., assignor.) (Reissue.)						
National Hot Water Heater Company. (See Spence, Archibald, assignor.)						
National Hydro-Carbon Furnace Company. (See Land, Charles H., assignor.)						
National Lock Washer Company. (See Dodd, David, assignor.)						
National Meter Company. (See Nash, Lewis H., assignor.)						
National Needle Company. (See Berry John, assignor.)						
National Progress Bunching Machine Company. (See Schutz, Adolph C., assignor.)						
National Safe and Lock Company. (See White, James, assignor.)						
National Self Heating Sad Iron Company. (See Heidel, Gustavos, assignor.)						
National Splice Bar Company. (See Lee, George S., assignor.)						
National Steam Excavating Company. (See Watson, William, assignor.)						
National Sulphite Boiler and Fiber Company. (See Schenek, Garret, assignor.)						
National Tramway Motor Company. (See Prall, William E., assignor.)						
National Tube Works Company. (See Dodge, Walter E., assignor.)						
National Tube Works Company. (See Paterson, Andrew, assignor.)						
National Tube Works Company. (See Patterson, Peter, assignor.)						
National Typographic Company. (See Mergenthaler, Ottmar, assignor.)						
National Vulcanite Company. (See Murdock, William C., assignor.)						
National Weighing Machine Company. (See Weber, Theodore A., assignor.)						
National Wire Hoop Company. (See Jacobs, Thomas H., assignor.)						
National Wrapping-Machine Company. (See Jarboe, Walter S., assignor.)						
Nanen, Hermann O., New York, assignor to M. E. Tracy, Troy, N. Y. Machine for pressing and turning the edges of woven fabrics.....	391,638	Oct. 23	2032	550	45	419
Naumburg, Simson J. (See Spielman, William, assignor.)						
Nave, Wesley, South Haven, Kans. Attachment for cultivators.....	376,336	Jan. 10	864	227	42	175
Naylor, Michael, Cleveland, Ohio. Fire-escape.....	377,266	Jan. 31	2235	591	42	478
Naylor, Arthur, Cold Spring, assignor to A. H. Newton, Cohoes, N. Y. Brick-mold sander. (Reissue).....	10,976	Dec. 25	2448	630	45	1568
Naylor, George W., Jersey City, N. J. Bell-cord attachment.....	383,587	May 29	2555	676	43	1035
Naylor, Harry, Oil City, Pa. Auger-handle.....	385,475	July 3	209	55	44	42
Naylor, Thomas A., Baltimore, Md. Measuring device for ice-cream or other similar substances.....	384,776	June 19	1397	365	43	1404
Naysmith, Robert, assignor to himself and W. H. Roberts, Pittsburg, Pa. Bloom-manipulator for rolling-mills.....	378,612	Feb. 28	1893	501	42	890
Neahr, Jacob E., Troy, N. Y. Bobbin-winder for sewing-machines.....	379,593	Mar. 20	1076	286	42	1163
Neal, Frank S., Plainfield, assignor to himself, and L. A. Kline, North Plainfield, N. J. Curry-comb.....	381,637	Apr. 24	2010	527	43	426
Neal, Lewis M., North Middletown, Ky. Insulator.....	378,971	Mar. 6	153	44	42	996
Neal, Stephen N., Durango, Tex. Washing-machine.....	387,250	Aug. 7	77	18	44	556
Near, Wilson, Humberstone, Ontario, Canada. Washing-machine.....	388,998	Sept. 4	274	73	44	1125
Nease, William O., Nashville, Mich. Lifting-jack.....	393,385	Nov. 27	1768	468	45	962
Necker, John J., and C. Gifford, assignors of one-third to J. F. Oldbach, North East, Pa. Ribbon-spool.....	383,141	May 22	1892	493	43	904
Nedder, Wilhelm F., Hamburg, Germany. Fare-indicating device for vehicles.....	383,758	May 29	2809	739 740	43	1087
Needham, Arthur J., H. C., and W. C., assignors of one-half to R. Hammond and F. J. Burt, London, county of Middlesex, England. Cigar or cigarette case.....	393,445	Nov. 27	1848	487	45	978
Needham, Franklin M. (See Macphail and Needham.)						
Needham, Horace C. (See Needham, Arthur J., H. C., and W. C.)						
Needham, Walter C. (See Needham, Arthur J., H. C., and W. C.)						
Neef, William, Marcellon, Wis. Insect-destroyer.....	394,205	Dec. 11	688	184	45	1211
Neel, William W., assignor to W. F. Murphy's Sons, Philadelphia, Pa. Sewing books.....	384,211	June 5	548	151	43	1227
Neely, Thomas, <i>et al.</i> (See Lackner, Frederick, assignor.)						
Neely, William A., Lynn, Mass., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Trimming mechanism for sewing-machines.....	379,410	Mar. 13	792	213	42	1122
Neely, William A., and N. G. Rowell, Lynn, Mass., assignors to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Trimming device for sewing-machines.....	379,714	Mar. 20	1253	334	42	1219
Neff, Abraham J., Fish Lake, assignor of two-thirds to A. E. Schrock, Goshe, Ind. Fence-machine.....	390,309	Oct. 2	149	42	45	33
Neff, Adie P., Relay, Pa. Cigar-perforating machine.....	382,548	May 8	1018	260	43	713
Neff, Elijah, Rochester, Ind., assignor of three-fourths to J. Gilchrist, Lima, Ohio, and A. W. Felts, Fulton County, Ind. Pump.....	378,402	Feb. 21	1585	416	42	820
Neff, Elijah, assignor of two-thirds to I. E. Bell and H. J. Eley, Mentone, Ind. Pump.....	381,808	Apr. 24	2247	588	43	472
Neff, H. E. (See Bryan, William N., assignor.)						
Neff, Joseph B., Burlington, Iowa, assignor to Hapgood Plow Company, Alton, Ill. Plow.....	380,658	Apr. 3	526	145	43	106
Neff, Lewis A., Middletown, Ind. Car-coupling.....	380,216	Mar. 27	2011	538	42	1376
Neider, Fred A., Augusta, Ky. Carriage-curtain light.....	391,063	Oct. 16	1244	331	45	256
Neil, Robert, and J. Morrison, Quebec, Quebec, Canada. Boiler for hot-water heaters.....	384,461	June 12	923	240	43	1305
Neilson, Alexander. (See Craig, Neilson, and Snodgrass.)						
Neilson, Alexander, and J. Taylor, Inkermann, county of Renfrew, Scotland. Oil spray or vapor lamp.....	382,106	May 1	343	90	43	576
Neilson, John G., <i>et al.</i> (See Henry, John, assignor.)						
Neiman, Alvin B., and L. M. Melhorn, York, Pa. Nut lock.....	383,366	May 22	2214	587	43	965
Nell, August F., assignor of one-half to C. Osterberg, San Francisco, Cal. Car-brake.....	380,049	Mar. 27	1783	476	42	1330
Nellis, Aaron J., Pittsburg, Pa. Plow-standard.....	376,448	Jan. 17	1030	269	42	212
Nelms, Eugene A., Atlanta, Ga. Show-case for cutlery.....	384,062	June 5	329	93	43	1183

## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Nelson, Anthony, assignor to J. B. Forsyth, Boston, Mass. Friction-clutch.....	384,268	June 12	541	{ 172 173 }	{ 43 }	1253
Nelson, B. Franklin, assignor of two-thirds to E. and M. P. Brennan, Detroit, Mich. Lift- ing-jack.....	388,067	Aug. 21	1321	358	41	843
Nelson, Clark B., assignor of one-half to J. H. Watson, Crawfordsville, Ind. Metallic crest- tile lightning-rod.....	384,384	June 12	821	213	43	1284
Nelson, George A., Chicago, Ill. Folding bed.....	388,999	Sept. 4	275	73	41	1125
Nelson, Hans P., Moorhead, Minn. Plow.....	387,532	Aug. 7	491	149	41	668
Nelson, John, Lexington, Ky. Poison-distributor.....	392,631	Nov. 13	674	168	45	730
Nelson Manufacturing Company, N. O. (See Wells, Frank A., assignor.)						
Nelson, Milford A., Windsor, Mo. Clothes-pounder.....	378,711	Feb. 28	2038	538	42	917
Nelson, William, and E. Bowen, Temoana, New Zealand. Wool-drying apparatus.....	394,713	Dec. 18	1177	388	45	1377
Nelson, William, and E. Bowen, Temoana, New Zealand. Wool-drying apparatus.....	394,714	Dec. 18	1189	389	45	1377
Nelson, William H., Washington, D. C. Saw-set.....	378,017	Feb. 14	1016	265	42	705
Nelson, William H., Washington, D. C. Stereotyping-machine.....	379,241	Mar. 13	550	{ 153 154 }	{ 42 }	1076
Nemacheck, Frank., Appleton, assignor of one-half to F. C. Peslin, Van Dyne, Wis. Frog- less switch.....	377,529	Feb. 7	274	69	42	547
Nemacheck, Frank, Appleton, assignor to himself and F. C. Peslin, West De Pere, Wis. Guide-bar for stub-switches.....	387,803	Aug. 11	909	235	44	753
Nendel, William. (See Strub and Nendel.)						
Neracher, William, Cleveland, Ohio. Automatic fire-sprinkler.....	388,905	Sept. 4	151	40	44	1101
Neracher, William, Cleveland, Ohio. Automatic fire-extinguisher.....	390,696	Oct. 9	693	184	45	146
Neresheimer, Louis. (See Willigerod and Neresheimer.)						
Nesbitt, Charles J. (See Davis, Edwin F., assignor.)						
Nesbitt, John D., New York, N. Y. Umbrella.....	375,947	Jan. 3	299	80	42	62
Nesmith, John W., assignor to Colorado Iron Works, Denver, Colo. Dumping-car.....	388,708	Aug. 28	2307	620	44	1035
Nesmith, Walter F., Brockton, Mass., assignor to Campbell Machine Company, Pawtucket, R. I. Presser-foot for sewing-machines.....	391,981	Oct. 30	2536	686	45	528
Netter, Charles, New York, N. Y. Railway-rail fastener.....	391,912	Oct. 30	2436	658	45	509
Nettz, Daniel B., Jefferson, Wis. Pump-rod for windmills.....	384,998	June 26	1723	447	43	1475
Nen, Gustave S., New York, N. Y. Electric power-controller.....	383,901	June 5	78	23	43	1136
Nen, Gustave S., New York, N. Y. Electrically-operative lock.....	390,795	Oct. 9	831	222	45	171
Nen, Gustave S., New York, N. Y. Boiler-feeder.....	394,715	Dec. 18	1491	389	45	1378
Nenburger, Albert, Kansas City, Mo. Safety attachment for elevators.....	378,899	Mar. 6	57	17	42	977
Nenburger, Albert, Kansas City, Mo. Safety-brake for cable cars.....	389,895	Sept. 25	1678	443	44	1414
Nemmann & Co., R. (See Schmidt, Ferdinand C., assignor.)						
Nemmann, William, St. Louis, Mo. Adjustable car-step.....	383,588	May 29	2556	676	43	1035
Neville, Adolph, St. Louis, Mo., and A. Back, said Back assignor to T. Back, New York, N. Y. Rack for exhibiting goods.....	383,975	June 5	201	58, 59	43	1159
Nevens, George, Brunswick, Me. Foot-guard for frogs, switches, &c.....	380,566	Apr. 3	423	120	43	86
Nevens, George, Brunswick, Me. Guard-rail.....	380,567	Apr. 3	424	120	43	87
Neverslip Horse Shoe Company. (See Stone, Samuel, assignor.)						
Neville, Dorsey. (See O'Neil, John K., assignor.)						
Neville, Mary D., Welbourne, Va. Device for cooking and turning omelets.....	385,599	July 24	1868	493	44	389
Neville, Timothy F., et al. (See De Berger, Frank J., assignor.)						
New England Bait Company. (See McCahey, John, assignor.)						
New England Telephone and Telegraph Company. (See Farnham, Isaiah H., assignor.)						
New Haven Clock Company. (See Noyes, Joseph G., assignor.)						
New Haven Clock Company. (See Ochmen, Bartholomew, assignor.)						
New Haven Clock Company. (See Sibbey, Clarence C., assignor.)						
New Haven Clock Company. (See Wood, Frank B., assignor.)						
New Jersey Manufacturing Company. (See Radcliffe, Charles, assignor.) (Reissue.)						
New Jersey Wire Cloth Company. (See Brown and Orr, assignors.)						
New Portable Electric Lamp and Power Syndicate Company. (See Urquhart and Nichol- son, assignors.)						
New York and New Haven Automatic Sprinkler Company. (See Miller, Richard W., as- signor.)						
New York In-Floor-Cuspidor Company. (See O'Connor, James L., assignor.)						
New York Rubber Company. (See Judson, Thomas S., assignor.)						
New York Smelting and Refining Company. (See Lissberger, Milton L., assignor.)						
Newark Collar Button Company. (See Ladd, Daniel A., assignor.)						
Newbanks, Eli P., assignor of one-half to J. Mahaffa, Beloit, Kans. Feed-trough.....	379,489	Mar. 13	914	245	42	1146
Newbanks, Eli P., and J. Mahaffa, Beloit, Kans. Feed-trough.....	382,721	May 15	1274	334	43	772
Newbanks, Eli P., and J. Shively, Beloit, Kans. Wire-fence stay-binder.....	387,691	Aug. 14	753	192	41	723
Newbern, Stephen, et al. (See Piper, William M., assignor.)						
Newberry, George W., Chicago, Ill. Record-drawer.....	394,500	Dec. 11	1125	292	45	1295
Newbery, James C., and C. T. J. Vautin, London, England. Chloridizing finely-divided auriferous materials.....	380,920	Apr. 10	930	218	43	190
Newbill, James, Trezevant, Tenn. Plow.....	391,718	Oct. 23	2143	549	45	440
Newby, Albert S., Kansas City, Mo. Upper and lower plate for fire-bowls.....	379,594	Mar. 20	1077	286	42	1183
Newby, Presley, Mill Shoals, Ill. Portable fence.....	376,337	Jan. 10	865	227	42	175
Newcomb, Buell F., assignor of one-half to C. M. Newcomb, Watkins, N. Y. Fence.....	390,186	Sept. 25	2105	561	44	1501
Newcomb, Clay M. (See Newcomb, Buell F., assignor.)						
Newell, Augustus, Chicago, Ill. Roll for rolling-mills.....	379,595	Mar. 20	1078	287	42	1184
Newell, Henry H. (See Beecher, Edwin N., assignor.)						
Newell, James S. (See Brown, James O., assignor.)						
Newell, James S., and J. O. Brown, Boston, Mass. Tree-protector.....	383,824	May 29	2921	771	43	1108
Newell, Olney. (See Keenan, Hiram T., assignor.)						
Newell, Roscius C., Palmer, Mass. Preparing yarn for filling, &c.....	388,436	Aug. 28	1919	{ 512 513 }	{ 44 }	962
Newey, James C., Birmingham, county of Warwick, England. Hook.....	393,656	Nov. 27	2181	572	45	1045
Newhall, Cyrus, assignor of one-half to L. Stebbins Hinsdale, N. H. Journal-bearing for lawn-mowers.....	386,082	July 10	1093	293	44	223
Newhall, George M. (See Beasley, Rehffuss, and Newhall.)						
Newhall, George M., Philadelphia, Pa., assignor to American Barrel and Stave Company, Camden, N. J. Machine for setting up barrels.....	393,571	Nov. 27	2045	536	45	1019
Newlands, Andrew M., Preston, assignor of one-half to A. Warnock, Galt, Ontario, Can- ada. Electrical stop mechanism for knitting-machines.....	390,891	Oct. 9	964	{ 254 255 }	{ 45 }	195
Newlove, John. (See Looker and Newlove.)						
Newman Anti-Freezing Water Pipe Company. (See Newman, Edwin A., assignor.)						
Newman, Edwin A., Washington, D. C., assignor to Newman Anti-Freezing Water Pipe Company, Chicago, Ill. Thermo-electric apparatus for controlling the temperature of water in pipes.....	383,536	May 29	2193	658	43	1022

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Newman, Edwin A., Washington, D. C., assignor to Newman Anti-Freezing Water Pipe Company, Chicago, Ill. Automatic thermo-electric cut-off for water-service supply-pipes.	389,096	Sept. 4	421	111	41	1153
Newman, Edwin A., Washington, D. C., assignor to Newman Anti-Freezing Water Pipe Company, Chicago, Ill. Cock or faucet	389,097	Sept. 4	424	112	44	1153
Newman, Edwin A., Washington, D. C., assignor to Newman Anti-Freezing Water Pipe Company, Chicago, Ill. Anti-freezing device for water-pipes	389,098	Sept. 4	427	113	44	1154
Newman, Edwin A., Washington, D. C., assignor to Newman Anti-Freezing Water Pipe Company, Chicago, Ill. Anti-freezing device for water-pipes	389,099	Sept. 4	431	113	44	1154
Newman, Edwin A., Washington, D. C., assignor to Newman Anti-Freezing Water Pipe Company, Chicago, Ill. Anti-freezing device for water-pipes	389,100	Sept. 4	436	114	44	1155
Newman, Gustav R., Chicago, Ill. Reed-organ	388,499	Aug. 28	2004	539	44	978
Newman, John B., Milford, Pa. Finger-ring	392,357	Nov. 6	268	69	45	645
Newman, Nelson, assignor to G. A. Sanders, Springfield, Ill. Elevated way	384,269	June 12	643	173	43	1253
Newman, Nelson, Springfield, assignor of one-half to G. A. Sanders, Sangamon County, Ill. Cash-carrier	385,196	June 26	2033	521	43	1538
Newman, Richard J., Norwich, Kans. Cuff-holder	394,206	Dec. 11	689	184	45	1212
Newman, Rudolph, San Francisco, Cal. Pistol-holder	375,829	Jan. 3	138	40	42	32
Newman, Samuel T., assignor of two-thirds to Hat Wire Company, Danbury, Conn. Wire bending and forming machine	384,999	June 26	1724	447	43	1475
Newman, Samuel T., assignor of one-fourth to C. H. Merritt, Danbury, Conn. Hat-trimming machine	387,692	Aug. 14	754	448	44	723
Newman, Simon. (See Bosse, Frederick J., assignor.)				450		
Newman & Sons, I. (See Hammond, M. Burdette, assignor.)				192		
Newman, Ulrich B., Greenfield, Ohio. Stove-hood	379,323	Mar. 13	669	181	42	1098
Newman, William C., Charlevoix, Mich. Bridge-guard	389,714	Sept. 1	1401	366	44	1352
Newman, James, Haw Ridge, Ala. Flue cleaner	386,600	July 24	1268	493	44	389
Newsom, Charles S., and L. Oxley, assignors to said Newsom, R. E. Hamblin, and H. R. Mathias, Athens, Ohio. Trace-fastening	381,884	Apr. 24	2384	620	43	498
Newsom, Logan C. (See Sabine, Hylas, assignor.)						
Newton, Adelbert C., assignor to Nichols, Shepard & Company, Battle Creek, Mich. Grain-separator	389,937	Sept. 25	1736	459	44	1426
Newton, Albert H. (See Naylor and Newton.)						
Newton, Andrew C., Crescent, N. Y. Elevator	385,722	July 10	583	151	41	121
Newton, Charles C. (See Manton, Joseph, assignor.)						
Newton, Charles W., assignor to Bartlett, Hayward & Co., Baltimore, Md. Hot-water and steam radiator	385,679	July 3	517	134	44	101
Newton, George A., assignor of one-half to S. W. Hurley, Brooklyn, N. Y. Waistband attachment	389,162	Sept. 4	549	138	44	1174
Newton, Marvin, Girard, Pa. Washing-machine	377,530	Feb. 7	275	69	42	548
Newton, Obadiah G. (See Allen, Erasmus W., assignor.)						
Newton, Obadiah G., Trenton, Mo. Churn	386,650	July 24	1939	512	44	404
Newton, Obadiah G., Trenton, Mo., assignor of one-half to E. W. Allen, Seneca, Kans. Washing-machine	391,913	Oct. 30	2437	659	45	509
Newton, Robert, Providence, R. I. Temperature-regulator	381,411	Apr. 17	1673	448	43	343
Newton, W. H. (See Lowell, Charles A., assignor.)						
Newton, William H., and W. H. Bailey, Tower Hill, Ill.; said Bailey assignor to said Newton. Drill and cultivator	392,283	Nov. 6	156	10, 41	45	623
Neymann, Percy. (See Hopkins, Coventry, Neymann, and Beardslee.)						
Nihlack, William C. (See Townsley, James L., assignor.)						
Nicely, Jacob, Enon Valley, Pa. Lock for fire-arms	377,531	Feb. 7	276	70	42	548
Nichol, J. M. (See Beattie, William, assignor.)						
Nicholas, Alexander H., Bronson, Kans. Folding step	383,902	June 5	80	23	43	1136
Nicholl, George. (See Jones, Lorenzo D., assignor.)						
Nicholls, Henry D. (See Gammon, Charles D., assignor.)						
Nichols, Aaron S., Chicago, Ill. Lumber-drier	390,697	Oct. 9	694	185	45	146
Nichols, Benjamin F. (See Dunham and McKemie, assignors.)						
Nichols, Charles F., San Francisco, Cal. Attachment for squares	386,651	July 24	1740	512	44	404
Nichols, Emory I., San Francisco, Cal. Vise	390,401	Apr. 3	139	41	43	29
Nichols Harvester Company. (See Nichols, Marion L., assignor.)						
Nichols, Herman, and H. C. Rose, Detroit, Mich. Alarm bell	391,483	Oct. 23	1826	489	45	375
Nichols, John, assignor to G. Waite, Templeton, Mass. Convertible chair	389,163	Sept. 4	551	139	44	1174
Nichols, John, Baldwinville, assignor to T. Derby & Co., Gardner, Mass. Chair	394,599	Dec. 18	1303	341	45	1342
Nichols, John B., Milwaukee, Wis. Separator	395,168	Dec. 25	2245	577	45	1531
Nichols, John F., assignor of one-half to J. D. Warden, Fall River, Mass. Bobbin-supporting spindle for spooling-machines, &c	385,680	July 3	519	135	44	102
Nichols, Marion L., New York, N. Y. Twine-loosener	386,411	July 17	1594	419	41	328
Nichols, Marion L., assignor to Nichols Harvester Company, New York, N. Y. Grain-binder	381,079	Apr. 10	1186	315	43	239
Nichols, Marion L., assignor to Nichols Harvester Company, New York, N. Y. Grain-binding harvester	381,080	Apr. 10	1192	317	43	240
Nichols, Marion L., assignor to Nichols Harvester Company, New York, N. Y. Grain-binding harvester				318		
Nichols, Marion L., assignor to Nichols Harvester Company, New York, N. Y. Grain-binding harvester				319		
Nichols, Marion L., assignor to Nichols Harvester Company, New York, N. Y. Grain-binding harvester				320		
Nichols & Shepard Company. (See Flagg, Eli W., assignor.)						
Nichols, Shepard & Company. (See Newton, Adelbert C., assignor.)						
Nichols, Walter S., Hebron, Ind. Hay-loader	385,281	June 26	2167	553	43	1565
Nichols, Walter S., Hebron, Ind. Band-cutter and feeder	390,509	Oct. 2	441	114	45	90
Nichols, William D., Elgin, Ill. Windmill	390,698	Oct. 9	696	185	45	146
Nicholson, Benjamin. (See Urquhart and Nicholson.)						
Nicholson, Isaac, San Francisco, assignor of one-half to J. D. Nicholson, Sierra City, Cal. Car-brake	386,024	July 10	1012	269	44	206
Nicholson, John D., W. J. McElroy, Pittsburg, Pa., and T. J. McTighe, New York, N. Y. Electric railway system	389,822	Sept. 18	1543	408	44	1381
Nicholson, Joseph D. (See Nicholson, Isaac, assignor.)						
Nicholson, Marshall M., et al. (See Bryant, William A., assignor.)						
Nicholson, Stephen, et al. (See Baviile, Edmond P., assignor.)						
Nicholson, Theophilus G. H., Liverpool, county of Lancaster, England. Tablet or plate for displaying luminous figures	394,386	Dec. 11	973	256	45	1267
Nicholson, Thomas N. (See Smith and Nicholson.)						
Nicholson, Thomas N., Embarrass, Wis. Potato-digger	394,286	Dec. 11	823	218	45	1238

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De't.	Vol.	Page.
Nicholson, Thomas S., Mount Washington, Ohio. Railway-signal.....	377,634	Feb. 7	424	108	42	576
Nickerson, Cornelius. (See Bray and Nickerson.)						
Nickerson, Fred. A., assignor, by mesne assignments, to Warwick Cycle Manufacturing Company, Springfield, Mass. Metallic wheel.....	382,658	May 8	1185	306	43	746
Nickerson, Kingsbury S., Passaic, N. J. Station-indicator.....	382,006	May 1	184	47	43	548
Nickerson, William E., Cambridge, Mass. Intermittent grip device.....	390,796	Oct. 9	832	222	45	171
Nickerson, William E., Cambridge, Mass. Elevator.....	390,797	Oct. 9	833	222	45	171
Nickerson, William E., Cambridge, Mass. Speed-regulator for elevators.....	394,000	Dec. 18	1304	341	45	1342
Nickerson, William E., Cambridge, Mass. Elevator.....	394,875	Dec. 18	1768	459	45	1432
Nicklas, William, and E. Beyer, Newark, N. J. Device for venting barrels.....	377,902	Aug. 14	1059	279	44	782
Niekum, George S., and H. P. Bunker, Dayton, Ohio. Elevator-hatchway gate.....	377,653	Aug. 14	694	179	44	712
Nicol, Robert, Jr., Chicago, Ill. Twine-holder.....	384,385	June 12	832	214	43	1285
Nicol, Robert, Jr., Chicago, Ill. Shoe or other brush.....	384,462	June 12	924	240	43	1305
Nicolai, Ludwig J. F. (See Saltzkorn and Nicolai.)						
Nicoll, Philip W. (See Smith and Nicoll.)						
Niedergesass, Robert, Chicago, Ill., assignor to Frey, Sheekler & Hoover, Bucyrus, Ohio. Lubricating-die for brick and tile machines.....	385,317	June 26	2227	570	43	1576
Niedlander, Allen O., assignor of one-half to G. H. Miller, Indianapolis, Ind. Car-coupling.....	391,719	Oct. 23	2144	580	45	440
Niedringhaus, Alexander, et al. (See Hirsching, Henry, assignor.) (Reissue.)						
Niehoff, Henry, New York, N. Y. Railway-car.....	382,434	May 8	833	213	43	678
Nielsen, Hans T., Chicago, Ill. Tuvare for forges.....	385,723	July 10	584	151	44	121
Nienstaedt, Ernst, assignor to J. H. Lippincott, New York, N. Y., and H. Schulzo-Berge, Rochester, Pa. Etching glass.....	382,318	May 8	653		43	644
Nienstaedt, Ernest, Berlin, Germany. Etching and producing inextinguishable metallic deposits upon bright metal surfaces.....	390,391	Oct. 2	277		45	59
Nieschang, Charles C. F., Fort Wayne, Ind. Carpet-stretcher.....	384,926	June 19	1619	421	43	1445
Nighman, Charles A., Canton, Ohio. Rolling-mill.....	384,063	June 5	330	94	43	1184
Nighswonger, William, Peotone, Kans. Grain-drill.....	379,179	Mar. 6	445	125	42	1051
Nightingale, James, New York, N. Y. Quiller.....	376,607	Jan. 17	1247	327	42	254
Nightingale, John and J., Paterson, N. J. Take-up mechanism for looms.....	391,812	Oct. 30	2290	621	45	479
Nightingale, Joseph. (See Nightingale, John and J.)						
Niklaus, Charles F., Los Angeles, Cal. Street and station indicator.....	388,709	Aug. 28	2308	620	44	1036
Niles, Milton C., Chicago, Ill. Railjoint.....	387,214	Aug. 7	173	46	41	604
Niles & Scott Company. (See Seymour, Grant, assignor.)						
Niles & Scott Company. (See Zimmermann, George J., assignor.)						
Niles, William F., Jersey City, N. J., assignor to Vulcanite Manufacturing Company, New York, N. Y. Button.....	384,064	June 5	332	94	43	1184
Nilson, Edgar C., et al. (See Bateman, Frank, assignor.)						
Nilson, Nils, Minneapolis, Minn. Grain-separator.....	376,157	Jan. 10	615	166	42	129
Nilson, Nils J., Meridian, Wis. Hay rake and cocker.....	383,479	May 29	2398	638	43	1065
Nilson, Peter F., Phenix, Ariz. Ter. Calendar-clock.....	387,005	July 31	2188	653	44	516
Nilsson, George F., Belmont, Mass. Boiler.....	382,722	May 15	1275	334	43	772
Nimschke, Louis W., New York, N. Y. Lock-hinge.....	394,788	Dec. 18	1625	426	45	1406
Nippert, Firman. (See Vaughan, Amariah, assignor.)						
Niss, Charles, Jr., Milwaukee, Wis. Window-shade attachment.....	390,392	Oct. 2	278	73	45	59
Nitschmann, Franz, Flatonia, Tex. Plow.....	381,946	May 1	67	17	43	527
Nix, James L., Carpenter, Ill. Incubator.....	386,155	July 17	1211	323	44	252
Nix, William M., Mayfield, Ky. Paper-bag holder.....	387,729	Aug. 14	811	210	44	734
Nixdorff, Lewis M., Frederick, Md. Sifter.....	388,575	Aug. 28	2110	566	44	999
Nixon, Martin N., Richmond, Ind. Cuff-supporter.....	385,681	July 3	520	135	44	102
Noar, Frederick C., Manchester, county of Lancaster, England. Apparatus for marking out patterns for garments.....	385,944	July 10	913	243	44	187
Noble, Alfred H., et al. (See Merritt, Mortimer G., assignor.)						
Noble, Alfred H., et al. (See Merwin, Frank A., assignor.)						
Noble, Andrew, Newcastle-upon-Tyne, England. Recoil-mounting for ordnance.....	377,326	Jan. 31	2332	673	42	474
Noble, Andrew, assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Breech-loading ordnance.....	377,906	Feb. 14	857	220	42	674
Noble, Andrew, assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Operating ordnance.....	377,954	Feb. 14	929	241	42	689
Noble, Andrew, assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Operating ordnance.....	378,172	Feb. 21	1244	327	42	756
Noble, Andrew, assignor to W. G. Armstrong, Mitchell & Co., (limited,) Newcastle-upon-Tyne, England. Gun-carriage.....	378,333	Feb. 21	1490	328	42	801
Noble, Eldridge H., and C. E. Warren, Postville, Iowa. Mop-wringer.....	388,710	Aug. 28	2310	621	44	1036
Noble, George B., et al. (See Merritt, Mortimer G., assignor.)						
Noble, George B., et al. (See Merwin, Frank A., assignor.)						
Noble, George H. (See Wilcox and Noble.)						
Noble, H. C. (See Herrick, Frank J., assignor.)						
Noble, Jay. (See Wilson and Noble.)						
Noble, Jay, St. Louis, Mo. Gas-engine.....	379,807	Mar. 20	1397	372	42	1248
Noble, John H., London, Ontario, Canada. Cigar-holder.....	378,104	Feb. 21	1137	297	42	737
Noble, Oscar L., and E. Childs, assignors to Union Heel Trimmer Company, Boston, Mass. Heel-trimming machine.....	389,759	Sept. 18	1459	382	44	1364
Noble, Oscar W., Lynn, Mass., assignor to Noble Stove Company, Manchester, N. H. Hot-water boiler.....	382,659	May 8	1186	306	43	747
Noble, Oscar W., Lynn, Mass., assignor to Noble Stove Company, Manchester, N. H. Hot-water boiler.....	382,660	May 8	1188	307	43	747
Noble Stove Company. (See Noble, Oscar W., assignor.)						
Noble, William J., New York, N. Y. Coffin-fastener.....	377,325	Jan. 31	2331	673	42	474
Noble, William J., New York, N. Y. Coffin-fastener.....	379,715	Mar. 20	1254	334	42	1220
Noble, William J., New York, N. Y. Coffin-fastener.....	383,235	May 22	2025	531	43	931
Nobs, Charles, Newark, N. J. Apparatus for tapering metallic blanks.....	383,142	May 22	1893	494	43	901
Nock, George W. (See Evans, Othniel B., assignor.)						
Noel, Clarence J., and J. Maurer, Marinette, Wis. Binding-clamp for receipt-books.....	389,896	Sept. 25	1679	443	44	1414
Noggie, David. (See Hageman, Noggie, and Eads.)						
Nolan, James. (See Whelan, John, assignor.)						
Nolan, John, Philadelphia, Pa., assignor to Automatic Electric Alarm Company, Camden, N. J. Fire-bucket low-water alarm.....	381,212	June 5	549	151	43	1228
Nolan, John H., Boston, Mass. Spring-scale.....	393,340	Nov. 20	1696	448	45	940
Nolan, John W., Chicago, Ill. Book-clip.....	387,364	Aug. 7	245	63	44	619

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Nolan, Michael, Bloomington, Ill. Gate.....	385,771	July 10	659	172	44	136
Noll, Albert, and M. Moll; said Noll assignor to A. Pfeiffer, New York, N. Y. Swinging scaffold.....	391,854	Oct. 30	2352	638 639	45	491
Nolley, Richmond E., Atlanta, Ga. Automatic switch.....	391,064	Oct. 16	1245	332	45	256
Nolley, William B., Conway, Ark. Return-packet for the transmission of papers, &c.....	385,197	June 26	2035	521	43	1538
Nöltner, Ambrosius, Dürkheim, Bavaria, assignor to E. Deutsch, Mussbach, Germany. Fruit-jar.....	381,482	Apr. 17	1783	475	43	364
Nonantum Worsted Company. (See Hall, George F., assignor.)						
Nopper, Thomas, London, Ontario, Canada. Automatic lubricator.....	385,369	July 3	44	14	44	11
Norcross, Castelly O. (See Choate and Norcross.)						
Nordberg, Bruno V., assignor to B. Nordberg Company, Milwaukee, Wis. Cut-off for steam-engines.....	384,213	June 5	551	151 152	43	1228
Nordberg, Bruno V., assignor to B. Nordberg Company, Milwaukee, Wis. Cut-off gear for steam-engines.....	394,501	Dec. 11	1126	292	45	1295
Nordberg Company, Bruno. (See Nordberg, Bruno V., assignor.)						
Nordenfalk, Otto W. K. J., Linköping, Sweden. Book-cover.....	381,846	Apr. 24	2336	604	43	487
Nordenfelt Guns and Ammunition Company. (See Nordenfelt, Thorsten, assignor.)						
Nordenfelt, Thorsten, Westminster, England. Shell-fuse.....	379,716	Mar. 20	1255	335	42	1220
Nordenfelt, Thorsten, Westminster, England. Shell-fuse.....	381,717	Apr. 24	2130	558	43	450
Nordenfelt, Thorsten, assignor to Nordenfelt Guns and Ammunition Company, (limited.) Westminster, England. Breech-loading ordnance.....	379,024	Mar. 6	240	68	42	1011
Nordenfelt, Thorsten, assignor to Nordenfelt Guns and Ammunition Company, (limited.) Westminster, England. Shell-fuse.....	379,025	Mar. 6	242	68	42	1011
Nordenfelt, Thorsten, assignor to Nordenfelt Guns and Ammunition Company, (limited.) Westminster, England. Turret-mounting for ordnance.....	382,182	May 1	444	116	43	595
Nordenfelt, Thorsten, assignor to Nordenfelt Guns and Ammunition Company, (limited.) Westminster, England. Breech mechanism for guns.....	384,537	June 12	1643	272 273	43	1327
Nordenfelt, Thorsten, assignor to Nordenfelt Guns and Ammunition Company, (limited.) Westminster, England. Breech mechanism for guns.....	388,576	Aug. 28	2111	566 567	44	999
Nordenfelt, Thorsten, Westminster, England, assignor to Maxim Nordenfelt Guns and Ammunition Company, (limited.) Carriage for machine-guns.....	393,386	Nov. 27	1769	469	45	962
Nordin, Andrew G. (See Prambus, Theodore A., assignor.)						
Nordmann, Prosper. (See Morlet, Charles, assignor.)						
Nordyke & Marmou Company. (See Marnon, Daniel W., assignor.)						
Nordyke & Marmou Company. (See Warrington, Jesse, assignor.)						
Norfolk, Edward L., Kingston, assignor to himself and O. L. Giddings, Exeter, N. H. Vehicle-spring.....	393,171	Nov. 20	1446	377	45	890
Norfolk, John R., Boston, Mass. Piston-meter.....	384,065	June 5	333	94	43	1181
Norman, Andrew E., Ishpeming, Mich. Clothes-line holder.....	379,717	Mar. 20	1257	336	42	1220
Norman, William C., Sydney, New South Wales. Block for engraving or etching upon.....	384,586	June 12	1116		43	1340
Normand, Joseph M., assignor of one-half to J. K. Mower, Springfield, Ohio. Combined pump-piston and check-valve.....	378,848	Feb. 28	2254	600	42	958
Normand, Joseph M., assignor of one-half to J. K. Mower, Springfield, Ohio. Double-acting force-pump.....	381,885	Apr. 24	2385	620	43	498
Normand, Joseph M., assignor of one-half to Thomas Manufacturing Company, Springfield, Ohio. Journal-box.....	383,410	May 22	2286	607	43	976
Normandin, Levi P., Bloomington, Ill. Pencil-sharpener.....	394,002	Dec. 4	368	105	43	1146
Normont, E. B., et al. (See Anderson, Lee, assignor.)						
Norrington, Henry H., West Bay City, Mich. Hand-stamp.....	386,716	July 24	2027	534	44	420
Norrington, Henry H., West Bay City, Mich. Hand-stamp.....	388,437	Aug. 28	1920	513	44	962
Norris, Albert N., assignor to Star Drill Company, Rushville, Ind. Seeding-machine.....	385,724	July 10	585	132	44	121
Norris, Barry A., Houston, Tex. Hammock.....	390,393	Oct. 2	279	73	45	59
Norris, Daniel W., Elgin, Ill., assignor to W. Young, Dayton, Ohio. Implement for bending wire.....	385,318	June 26	2228	571	43	1576
Norris, Henry D., et al. (See Griswold, James D., assignor.)						
Norris, John W. (See Davis, Charles E., assignor.)						
Norris, Joseph D., La Porte, Ind. Cutter-bar for reapers and mowers.....	390,510	Oct. 2	443	115	45	90
North American Cigar Machinery Company of the City of New York. (See Boehm and Reed, assignors.)						
North American Metalline Company. (See Douglas, James, Jr., assignor.)						
North Brothers Manufacturing Company. (See North, Ralph H., assignor.)						
North, John, Middletown, Conn. Lift or force pump.....	380,509	Apr. 3	306	89	43	62
North, John, Middletown, Conn. Pump.....	380,510	Apr. 3	308	89	43	62
North, John, Middletown, Conn. Pump.....	385,319	June 26	2229	571	43	1576
North, Ralph H., assignor to North Brothers Manufacturing Company, Philadelphia, Pa. Sash-fastener.....	379,242	Mar. 13	552	154	42	1076
North, Ralph H., assignor to North Brothers Manufacturing Company, Philadelphia, Pa. Sash-fastener.....	391,813	Oct. 30	2291	622	45	480
North, William F., Philadelphia, Pa. Water-closet.....	387,804	Aug. 14	910	236	44	754
Northampton Cutlery Company. (See Feicker, Fredrick C., assignor.)						
Northey, Thomas, Toronto, Ontario, Canada. Automatic low-water indicator.....	389,240	Sept. 11	663	173	44	1209
Northrop, Cecilia R. (See Wright, Parvin, assignor.)						
Northrup, Cecilia R., et al. (See Wright, Parvin, assignor.)						
Northrup, James R., Rocky Brook, R. I. Carriage-spring.....	376,158	Jan. 10	617	166	42	129
Northrup, Joseph. (See Thomson, Alexander, assignor.)						
Northrup, William G., Minneapolis, Minn. Blanket-case.....	385,422	July 3	134	36	44	28
Northwestern Tin-Ware Manufacturing Company. (See Bick, Otto G., assignor.)						
Northwood, Harry, Wheeling, W. Va. Manufacture of glassware.....	392,450	Nov. 6	409	101	45	671
Norton, Daniel F., et al. (See Gould, George F., assignor.)						
Norton, Dennis. (See Barry, Henry, assignor.)						
Norton, Edward Q., Mobile, Ala. Device for beating out pianos.....	393,024	Nov. 20	1249	324	45	851
Norton, Edwin. (See Wilcox and Norton.)						
Norton, Edwin, et al. (See Hodgson, John G., assignor.)						
Norton, Edwin, et al. (See Leavitt, Frank M., assignor.)						
Norton, Edwin, et al. (See Norton and Hodgson, assignors.)						
Norton, Edwin, et al. (See Roberts, John W., assignor.)						
Norton, Edwin, Maywood, assignor to himself and O. W. Norton, Chicago, Ill. Can-soldering machine.....	382,320	May 8	659	168	43	645
Norton, Edwin, and J. G. Hodgson, Maywood, assignors to said E. Norton and O. W. Norton, Chicago, Ill. Double-seaming machine.....	378,143	Feb. 21	1206	314	42	748
Norton, Edwin, and J. G. Hodgson, Maywood, assignors to said Norton and O. W. Norton, Chicago, Ill. Can-cap-soldering machine.....	379,976	Mar. 27	1669	445	42	1308
Norton, Edwin, and J. G. Hodgson, Maywood, assignors to said E. Norton and O. W. Norton, Chicago, Ill. Apparatus for making sheet metal.....	382,319	May 8	654	167	43	614



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Norton, Edwin, and J. G. Hodgson, Maywood, assignors to said E. Norton and O. W. Norton, Chicago, Ill. Manufacture of sheet metal.	382,321	May 8	669	{ 168 169 }	43	645
Norton, Fred. H., assignor to St. Lawrence Manufacturing Company, Gouverneur, N. Y. Combined disk harrow and seeder.	394,128	Dec. 4	568	153	45	1180
Norton, Frederick E. (See Pond and Norton.)						
Norton, Gerrit, New York, assignor to M. Norton, Ithaca, N. Y. Corking-machine.	391,760	Oct. 23	2197	594	45	451
Norton, James A., Odesholt, Iowa, and J. A. Stoues, Chicago, Ill. Corn-harvester.	381,163	Apr. 17	1316	351	43	272
Norton, John, and W. P. Gilbert, assignors of one-third to C. E. Manby, McKeesport, Pa. Pipe-welding ball.	387,315	Aug. 7	176	46	44	604
Norton, John, and W. A. Millar, McKeesport, assignors of one-third to T. Walker, Pittsburgh, Pa. Pipe-coupling.	393,120	Nov. 20	1377	359	45	876
Norton, John E. (See McCray and Norton.)						
Norton, John E. (See Pickering and Norton.)						
Norton, Joshua, Jr., Portneuf, Quebec, Canada. Beating engine.	389,760	Sept. 18	1461	383	44	1364
Norton, Malcolm A., Hartford, Conn. Velocipede.	393,387	Nov. 27	1770	469	45	963
Norton, Matilda. (See Norton, Gerrit, assignor.)						
Norton, Morgan L. (See Van Antwerp and Norton.)						
Norton, Oliver W. (See Norton, Edwin, assignor.)						
Norton, Oliver W. (See Norton and Hodgson, assignors.)						
Norton, Oliver W. (See Willeox and Norton, assignors.)						
Norton, Oliver W., et al. (See Hodgson, John G., assignor.)						
Norton, Oliver W., et al. (See Leavitt, Frank M., assignor.)						
Norton, Oliver W., et al. (See Roberts, John W., assignor.)						
Norton, Richard D., Hightstown, N. J. Combined thrashing-machine and binder.	393,782	Dec. 4	68	19, 20	45	1085
Norton, Stephen A. (See Plue and Norton.)						
Norwalk Iron Works Company. (See Morgan, Henry P., assignor.)						
Norwalk Lock Company. (See Hoffman, Henry, Jr., assignor.)						
Norwood, Joseph, Brooklyn, N. Y. Fence or guard.	386,083	July 10	1094	293	44	223
Nosbaume, Auguste, Antwerp, Belgium. Air compressor and regulator therefor.	393,172	Nov. 20	1447	378	45	890
Nosker, Orren G., Sheldon, Ill. Scaffolding.	391,182	Oct. 16	1412	377	45	287
Noteman, Alonzo. (See Patterson and Noteman.)						
Noth, Henry and J., Davenport, Iowa. Malting-machine.	380,588	Apr. 3	425	121	43	87
Noth, Henry and J., Davenport, Iowa. Apparatus for malting.	394,601	Dec. 18	1305	342	45	1343
Noth, John. (See Noth, Henry and J.)						
Nottingham, Edwin I. (See Patton, William P., assignor.)						
Novotny, Louis, Antigo, Wis. Combined runner and wheeled vehicle.	393,076	Nov. 20	1316	{ 343 344 }	45	864
Nowell, Thomas, and G. H. Wilson, Vilonia, Ark. Mole-plow.	376,674	Jan. 17	1366	358	42	275
Nowvich, John H., Montgomery's Ferry, Pa. Potato-separator.	393,848	Dec. 4	168	45	45	1103
Noxon, Thomas H., Ingersoll, Ontario, Canada. Cultivator-tooth.	392,060	Oct. 30	2655	722	45	551
Noye Manufacturing Company, John T. (See Forward, Chauncey B., assignor.)						
Noyes, Augustus J., Oneonta, assignor of one-half to R. C. Blackall, Albany, N. Y. Machine for milling connecting-rod boxes.	392,164	Oct. 30	2825	766	45	584
Noyes & Co., Joseph P. (See Noyes, Joseph P., assignor.)						
Noyes, E. I. K. (See Kelsea, Joseph N., assignor.)						
Noyes, George E., Washington, D. C. Crushing-mill roller.	384,172	June 5	491	135	43	1216
Noyes, Joseph G., assignor to New Haven Clock Company, New York, N. Y. Telegraph-register.	375,766	Jan. 3	61	18	42	16
Noyes, Joseph P., assignor to J. P. Noyes & Co., Binghamton, N. Y. Button.	377,768	Feb. 14	660	165	42	636
Noyes, Joseph P., assignor to J. P. Noyes & Co., Binghamton, N. Y. Comb.	377,769	Feb. 14	661	166	42	636
Noyes, La Verne W., Chicago, Ill. Horse-collar pad.	383,143	May 22	1895	494	43	904
Noyes, La Verne W., Chicago, Ill. Sheaf-carrier for self-binding harvesters.	392,746	Nov. 13	836	{ 212 213 }	45	762
Noyes, La Verne W., Chicago, Ill. Self-binding harvester.	392,747	Nov. 13	838	{ 213 214 }	45	762
Noyes, Person. (See Kidder, Moses W., assignor.)						
Noyes, Walter B., Buffalo, N. Y., assignor to Chicago Roller Spring Company, Chicago, Ill. Bed-bottom.	381,024	Apr. 10	1087	289	43	219
Nuebling, Louis W. (See Smith and Nuebling.)						
Null, Hugh S., and J. Bussard, Huntington, Ind. Plow attachment.	376,393	Jan. 10	935	245	42	188
Numer, John L. (See Cowher and Numer.)						
Nuncviller, William. (See Robbins, Ira, assignor.)						
Nunn, Charles H., Rochester, N. Y. Oil-cup.	380,659	Apr. 3	527	145	43	106
Nute, John C. (See Weston, Charles H., assignor.) (Reissue.)						
Nutt, Jasper N. (See Harmon and Nutt.)						
Nutt, Joseph, Danbury, Conn. Machine for bending hat-wires.	376,608	Jan. 17	1251	{ 328 329 }	42	255
Nutt, Joseph, Danbury, Conn. Machine for applying clasps to hat-wires.	379,876	Mar. 20	1522	{ 401 402 }	42	1271
Nuttall, William L. (See Seiser, Hill, and Nuttall.)						
Nutter, Frank H., Malden, Mass. Circuit-changing device for burglar-alarms.	388,438	Aug. 28	1922	513	44	962
Nutter, Frank H., Minneapolis, Minn. Precautionary device for poison-bottles.	388,785	Aug. 28	2416	652	44	1056
Nutting, Calvin, Jr. (See Chapel, Deodatus, assignor.)						
Nutting, Freeman E., Florence, Mass. Combined square, rule, calipers, and dividers.	385,822	July 10	727	191	44	149
Nutting, George E., Waltham, Mass., and J. C. Githens, assignors to A. C. Rand, New York, N. Y. Steam rock-drill. (Reissue.)	10,975	Dec. 11	1211	315	45	1310
Nutting, Harvey S. (See Pentse, Nutting, and Smith.)						
Nutting, Samuel E., Chicago, Ill. Electric-arc lamp.	391,761	Oct. 23	2198	594	45	452
Nutting, Samuel E., Chicago, Ill. Dynamo-electric machinery.	393,849	Dec. 4	169	46	45	1104
Nutting, Thomas B., assignor of one-half to T. B. Nutting, Jr., Morristown, N. J. Fire-escape.	394,562	Dec. 11	1127	293	45	1295
Nye, Charles G., Syracuse, N. Y. Screw-propeller.	390,615	Oct. 2	575	153	45	116
Nye, George E., assignor of one-half to E. Fredick, Bristol, Pa. Thread-feeding mechanism for knitting machines.	392,685	Nov. 13	746	190	45	744
Nye, Herman M., Corydon, Ind. Liquid-measuring faucet.	376,254	Jan. 10	751	199	42	154
Nye, John F., et al. (See Mabey, Jesse T., assignor.)						
Nygaard, Christian, Oshkosh, Wis. Cant-hook.	382,240	May 1	529	135	43	611
O'Beirne, Edward J., assignor to National Electric Company, Elgin, Ill. Armature for dynamo-electric machines.	377,046	Jan. 31	1912	503	42	305
O'Blenns, Anthony W., River Edge, N. J. Combined mop and brush.	377,955	Feb. 14	931	242	42	689
O'Bolger, Thomas, Rochester, N. Y., assignor to W. S. King, Minneapolis, Minn. Lasting-machine.	388,577	Aug. 28	2113	567	44	999
O'Brien, Charles H. (See Robinson, O'Brien, and Breen.)						
O'Brien, Joseph, Boston, Mass. Anvil.	386,755	July 21	2087	548	44	429

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. G.	Vol.	Page.
O'Brien, Thomas, New York, N. Y. Tandem bicycle	386,601	July 24	1869	{ 493 494 }	44	390
O'Brien, Thomas, New York, N. Y. Bicycle	388,906	Sept. 4	153	40	44	1101
O'Brien, Thomas, New York, N. Y. Wheel	388,907	Sept. 4	154	40	44	1102
O'Brien, Thomas, New York, N. Y. Tricycle	394,287	Dec. 11	824	219	45	1238
O'Brien, Thomas, assignor of one-half to Coldwater Road Cart Company, Coldwater, Mich. Vehicle-hub	389,101	Sept. 4	440	115	44	1155
O'Connell, Michael M. (See Reid, Frederick R., assignor.)						
O'Connell, Thomas, Brooklyn, N. Y. Shore-protector	384,173	June 5	492	135	43	1216
O'Connell, Thomas, Brooklyn, N. Y. Pile-driving attachment	391,267	Oct. 16	1531	406	45	309
O'Connor, James, Newport, Ky., assignor to Williams & O'Connor, Cincinnati, Ohio. Device for forming letters and designs on sheet metal	384,331	June 12	742	195	43	1270
O'Connor, James L., assignor to New York In Floor Cuspidor Company, New York, N. Y. Cuspidor	384,587	June 12	1118	295	43	1340
O'Connor, James L., assignor to New York In-Floor-Cuspidor Company, New York, N. Y. Cuspidor	386,917	July 17	1316	348	44	271
O'Connor, John D., New York, N. Y. Billiard-cushion	383,005	May 15	1661	435	43	849
O'Connor, John F. K., Yonkers, N. Y. Railway time-signal	377,497	Feb. 7	225	54	42	539
O'Connor, John F. K., Yonkers, N. Y. Inkstand	382,894	May 15	1506	{ 394 395 }	43	820
O'Connor, John F. K., Yonkers, assignor to "Universal" Crimper Company, New York, N. Y. Leather-crimping machine	386,652	July 24	1941	513	44	404
O'Day, Charlotte, assignor to C. Ahair, Denver, Colo. Bustle	382,378	May 8	756	192	43	602
O'Day, John. (See Rice and O'Day.)						
O'Donnell, Bryan, Vail, Iowa. Check-row attachment for corn-planters	388,908	Sept. 4	155	41	44	1102
O'Donnell, James, San Francisco, Cal. Rotary valve	383,976	June 5	202	59	43	1159
O'Donohue, William. (See Bailey, Gordon B., assignor.)						
O'Ferrall, John, Baltimore, Md. Can-soldering machine	384,464	June 12	925	241	43	1305
O'Hagan, James, Jr. (See Mulhall, James J., assignor.)						
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,945	July 10	915		44	187
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,946	July 10	916		44	187
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,947	July 10	916		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,948	July 10	916		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,949	July 10	917		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,950	July 10	917		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,951	July 10	918		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,952	July 10	918		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,953	July 10	918		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,954	July 10	919		44	188
O'Hara, Daniel, D. W. Eldredge, and J. Logan, Waltham, Mass. Alloy	385,955	July 10	919		44	188
O'Hara, James F., and R. H. Kaufuss, Brooklyn, N. Y. Gold-leaf cutter	394,717	Dec. 18	1494	390	45	1378
O'Hara, Michael, Brooklyn, N. Y. Soap-manufacture	394,660	Dec. 18	1404	366	45	1360
O'Hara, Michael J., New Orleans, La. Anti-friction journal-bearing	391,184	Oct. 16	1414	378	45	287
O'Hare, Hugh, assignor to J. F. Leech, Mount Pleasant, Iowa. Road-scraper	392,567	Nov. 6	570	143	45	704
O'Hare, Hugh, assignor to J. F. Leech, Mount Pleasant, Iowa. End-gate	392,966	Nov. 13	1159	301	45	825
O'Hare, Hugh, assignor to J. F. Leech, Mount Pleasant, Iowa. Calf-weaner	393,341	Nov. 20	1697	448	45	940
O'Herin, William, <i>et al.</i> (See Gilles, William, assignor.)						
O'Keefe, John, assignor to Excelsior Manufacturing Company, St. Louis, Mo. Grate	381,886	Apr. 24	2387	{ 620 621 }	43	499
O'Keefe, John J., <i>et al.</i> (See King, William H., assignor.)						
O'Keefe, William, Elliston, Mont. Ter. Rock-drill	382,895	May 15	1507	395	43	821
O'Keefe, William, St. Louis, Mo. Hydraulic elevator	384,864	June 19	1535	{ 399 400 }	43	1429
O'Keenan, Charles E., St. Cloud, near Paris, France. Galvanic battery	380,589	Apr. 3	427	121	43	87
O'Kelly, George W. (See Cande, John H., assignor.)						
O'Kelly, James, London, and B. A. Collins, 26 Machell Road, Nunhead, county of Surrey, England. Means for operating marine torpedoes	388,299	Aug. 21	1709	456	44	917
O'Kelly, James, London, and B. A. Collins, 26 Machell Road, Nunhead, county of Surrey, England. Electric steering apparatus for torpedo-boats	388,300	Aug. 21	1713	{ 457 458 }	44	918
O'Kelly, James M., assignor of one-half to G. D. Bayaud, New York, N. Y. Coin-controlled apparatus for testing physical power, displaying advertisements, and delivering small articles	393,719	Nov. 27	2268	595	45	1062
O'Leary, Charles M., Washington, D. C. Automatic bell	383,236	May 22	2026	531	43	931
O'Leary, Dennis, San Bernardino, Cal. Grindstone-hanger	381,977	June 5	203	59	43	1159
O'Neil, Jeremiah F., New York, N. Y. Circular-knitting machine	387,251	Aug. 7	78	18, 19	44	587
O'Neil, John K., assignor to D. Neville, Poughkeepsie, N. Y. Fire-escape	387,180	July 31	2752	720	44	561
O'Neil, John K., assignor to D. Neville, Poughkeepsie, N. Y. Fire-escape	387,436	Aug. 7	352	90	44	641
O'Neill, Charles P., Brooklyn, N. Y. Punch for perforating sheet metal	389,404	Sept. 11	918	240	44	1255
O'Neill, John, assignor of one-third to C. Hyass, New York, N. Y. Car-starter	377,113	Jan. 31	2024	530	42	416
O'Rielly, Michael J., Buffalo, N. Y. Gas-stove	383,316	May 22	2145	566	43	952
O'Rielly, Michael J., Buffalo, N. Y. Gas-stove	394,004	Dec. 4	390	106	45	1146
O'Sullivan, Dennis J., Detroit, Mich. Base-ball mask	379,655	Mar. 20	1162	307	42	1200
Oakes, Cunnings C., Newport, Me. Adjustable form for setting and building carriage-tops	378,457	Feb. 28	1679	440	42	846
Oakford, Charles, Philadelphia, Pa. Toy cap-detonator	392,820	Nov. 13	957	246	45	786
Oakley, Arthur, Brockton, Mass. Elevator-alarm	377,403	Feb. 7	54	15	42	506
Oakley, Edward H. A., Aiken, S. C. Nut-lock	381,573	Apr. 24	1918	505	43	408
Oaks, William A. C., Antrim, N. H. Apple-parer	379,324	Mar. 13	670	{ 181 182 }	42	1098
Oaks, William A. C., assignor to Goodell Company, Antrim, N. H. Fork for fruit-paring machines	382,519	May 8	1019	260	43	713
Oatman, Charles D., Brooklyn, N. Y. Tripod-head	385,567	July 3	356	92	44	71
Oborn, George W., Columbus, Ohio. Fire-extinguisher for railway-cars	383,004	May 15	1661	434	43	849
Obenchain, John T., Logansport, Ind. Turbine	379,718	Mar. 20	1258	336	42	1920
Obermann, August W., Pittsburg, Pa. Sancepan	393,025	Nov. 20	1251	324	45	851
Oborn, Benjamin, Marion, assignor to J. A. Jeffrey, Columbus, Ohio. Drive-chain	378,173	Feb. 21	1246	328	42	756
Ocean Steamship Berth Company. (See Milligan, William T., assignor.)						
Ochiltree, Henry M. (See Burt, Ransom K., assignor.)						
Ochs, John J., Newark, N. J. Atomizer	384,777	June 19	1398	365	43	1404
Odell, Benjamin C., Kingston, N. Y., assignor to Thompson, Perley & Waite, Baldwinsville, Mass. Convertible chair	394,716	Dec. 18	1492	{ 389 390 }	45	1378
Odell, James A., Kalamazoo, Mich. Two-wheeled vehicle	386,893	July 31	2326	611	44	483
Odell, George W., and H. G. Hopper, Rankin; said Hopper assignor to Curtis Fence Machine Company, Flint, Mich. Picket-fence machine	390,983	Oct. 9	1112	{ 293 294 }	45	223

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Odell, John B., Chicago, Ill., assignor to Printing Telegraph Company of Illinois. Type setting and distributing indicator.	392,358	Nov. 6	270	69	45	645
Odell, John L., Delta, Ohio. Oil-burner for heating purposes.	392,219	Nov. 6	63	16	45	607
Odell, William H., Yonkers, N. Y. Steam-boiler.	376,205	Jan. 10	6-7	1-2	42	111
Odell, William H., Yonkers, N. Y. Evaporating-coil.	380,050	Mar. 27	17-4	476	42	1330
Odiorne, David W., Elizabeth, N. J. Umbrella-tie.	381,463	June 12	924	240	43	1305
Odorizzi, Joseph, assignor of three-fourths to S. S. Wallace, P. Gerardi, and M. Harasin, Trinidad, Colo. Dump-car.	384,708	June 19	1307	341	43	1385
Oehl, Henry, assignor to Cheshire Watch Company, Cheshire, Conn. Watch-barrel.	391,183	Oct. 16	1413	377	45	2-7
Oehler, K. (See Friedlaender and Priebs, assignors.)						
Oehler, K. (See Rudolph, Christian, assignor.)						
Oehlmann, Gustavo. (See Schaeffer and Oehlmann.)						
Oehmen, Bartholomew, assignor to New Haven Clock Company, New York, N. Y. Combined telegraph key and sounder.	377,862	Feb. 14	789	202	42	660
Oehmen, Bartholomew, assignor to Adjustable Die and Stock Company, New York, N. Y. Screw-cutting die and stock.	386,842	July 31	2255	593	44	469
Oehle, Albert C., Philadelphia, Pa., assignor to American Pneumatic Railway Company, of Tennessee. Elevated railway and conduit for electric wires, &c.	379,904	Mar. 20	1565	412 413	42	1278
Oehle, Albert C., Philadelphia, Pa., assignor to American Pneumatic Railway Company, of Tennessee. Car-truck.	379,905	Mar. 20	1566	413	42	1278
Oesterlein, Louise. (See Oesterlein, Wilhelm, assignor.)						
Oesterlein, Wilhelm, assignor to L. Oesterlein, Cincinnati, Ohio. Friction-clutch.	378,803	Feb. 28	2175	579	42	943
Ofeldt, Frank W., Newark, N. J. Hydrocarbon-furnace for steam-boilers.	393,850	Dec. 4	171	46	45	1101
Offroy, Henri, and C. Pfeiffer, Malaunay, France. Device for cleaning and compacting yarn and for testing the strength of the same.	388,298	Aug. 21	1708	456	44	917
Ogden, Edwin G., Chicago, Ill. Barrel-washer.	392,220	Nov. 6	64	16	45	607
Ogden, George H., Cleveland, Ohio. Book-binding apparatus.	391,266	Oct. 16	1324	405 406	45	309
Ogden, James A., Philadelphia, Pa. Railway tie and fastening.	3-6,156	July 17	1212	323	44	253
Ogden, Samuel, Manchester, county of Lancaster, England. Waterproofing plates and bands.	390,248	Oct. 2	77	32	45	19
Ogram, Thomas E., Washington, D. C. Syringing apparatus.	386,555	July 24	1813	479	44	378
Ohio Machine Company. (See Shurtleff and Haag, assignors.)						
Ohio Rake Company. (See Thomas and Ritty, assignors.)						
Ohl, George A., Newark, N. J. Mash-tub.	393,851	Dec. 4	173	46 47	45	1104
Ohlsen, August C., Cincinnati, Ohio. Top-prop spring.	379,281	Mar. 13	605	166	42	1086
Ohlson, Olof. (See Englund and Ohlson.)						
Ohmart, Eli C., New York, N. Y., assignor, by mesne assignments, to Ohmart-Homans Electric Lighting Company, of New York. Electric lamp.	3-3,411	May 22	2238	607 608	43	976
Ohmart-Homans Electric Lighting Company. (See Ohmart, Eli C., assignor.)						
Oldott, Charles S., and J. P. Elliott, Chicago, Ill. Paper-reel for short-hand machines.	381,506	Apr. 17	1822	482	43	372
Old Colony Machine Company. (See Hamblin, Stephen M., assignor.)						
Oldbach, John F. (See Necker and Gifford, assignors.)						
Oldenbusch, Ernest, assignor to W. Schimper & Co., New York, N. Y. Pocket-book, bag, or purse frame.	384,386	June 12	823	214	43	1285
Oldershaw, John B., Baltimore, Md. Hot-air furnace.	381,574	Apr. 24	1919	506	43	408
Oldfield, Edwin. (See Rush and Oldfield.)						
Oldfield, Gideon G., Ferensbaugh, N. Y. Car-brake.	386,342	July 17	1479	392	44	302
Oldham, Amelia C., et al. (See Carroll and Hill, assignors.)						
Oldham, C., et al. (See Bartlett, Thomas J., assignor.)						
Oldham, George N., and W. M. Roberts, St. Louis, Mo. Post or pile driver.	387,533	Aug. 7	493	129	44	669
Oldham, Joshua, Brooklyn, N. Y. Apparatus for tempering steel bands.	381,575	Apr. 21	1930	506	43	408
Olds, Channcey J., Valley Falls, assignor to Schaghticoke Powder Company, Schaghticoke, and Lafin & Rand Powder Company, New York, N. Y. Gunpowder.	381,507	Apr. 17	1823		43	372
Olds, Frank W., Munith, Mich. Wood-sawing machine.	3-2,723	May 15	1276	334 335	43	772
Olds, Wilson A. (See Smith and Olds.)						
Olin, Edwin D., Arondale, Ohio. Side-bar vehicle.	387,987	Aug. 14	1195	324	44	809
Olin, William E., assignor to W. Deering, Chicago, Ill. Grain-binder.	375,830	Jan. 3	139	40, 41	42	32
Oliphant Manufacturing Company. (See Oliphant, William, assignor.)						
Oliphant, William, Paterson, N. J. Feed-water heater.	381,538	June 12	1046	273	43	1327
Oliphant, William, Jersey City, N. J. Liquid purification.	384,529	June 12	1047	273 274	43	1327
Oliphant, William, Jersey City, N. J. Means for utilizing boiler, furnace, and exhaust-steam heat.	390,511	Oct. 2	444	115	45	90
Oliphant, William, Jersey City, N. J. Apparatus for liquid purification.	390,512	Oct. 2	445	116	45	90
Oliphant, William, Paterson, N. J., assignor to Oliphant Manufacturing Company, New York, N. Y. Feed-water heating and filtering apparatus.	384,540	June 12	1049	274	43	1328
Oliyan, Constantine. (See Aniello, John A., assignor.)						
Oliver, David B., Allegheny City, Pa. Appliance for rolling-mills.	381,332	June 12	743	195	43	1270
Oliver, David B., Allegheny City, Pa. Feed-table for rolling-mills.	386,412	July 17	1595	419	44	329
Oliver, Ebenezer, New York, N. Y., assignor to W. S. Estey, Jersey City, N. J. Riddle or sieve.	378,458	Feb. 28	1681	440	42	846
Oliver, Frederick W., 37 Huddart Street Bow, county of Middlesex, England. Producing colored transparencies.	393,919	Dec. 4	274		45	1124
Oliver, George T., et al. (See Roberts, Henry, assignor.)						
Oliver, George W., Chattanooga, Tenn. Adjustable pitch-board.	378,069	Feb. 14	1084	285	42	719
Oliver, Henry, Brooklyn, assignor to A. C. Cunningham, New York, N. Y. Envelope.	389,318	Sept. 11	795	202	44	1231
Oliver, Henry M., Newark, N. J. Fifth-wheel.	391,914	Oct. 30	2438	659	45	510
Oliver, James B., Pittsburg, Pa. Fire-plow. (Reissue.)	10,909	Mar. 13	1008	270	42	1164
Oliver, Paul A., Oliver's Mills, Pa. Gunpowder-mill roll.	375,889	Jan. 3	215	59	42	46
Oliver, Paul A., Oliver's Mills, Pa. Gunpowder press and grainer.	378,516	Feb. 28	1755	464	42	863
Oliver, Paul A., Oliver's Mills, Pa. Gunpowder-mill.	382,825	May 15	1411	371	43	800
Oliver, Paul A., Oliver's Mills, Pa. Automatic feed and delivery apparatus for gunpowder-mills.	386,843	July 31	2256	593	44	469
Oliver, Paul A., Oliver's Mills, Pa. Gunpowder press and grainer. (Reissue.)	10,965	Oct. 30	2846	771	45	588
Oliver, Renben W., Lockport, N. Y. Hedge-trimming machine.	381,508	Apr. 17	1824	482	43	372
Oliver, Robert, Alpena, Mich. Dynamo-electric machine.	384,638	June 19	1194	315 316	43	1364
Oliver, William W. (See Srensson, Claes A., assignor.)						
Olmostead, Albert P., Troy, assignor of one-half to A. T. Porter, West Troy, N. Y. Hub-attaching device.	394,876	Dec. 18	1770	459	45	1433
Olmostead, Anson W., et al. (See Manning, John C., assignor.)						
Olmostead, Channcey L., et al. (See Bray, Morris P., assignor.)						
Olmostead, Edward A., Buffalo, N. Y. Car-coupling.	377,532	Feb. 7	277	70	42	548

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Olmstead, Homer P., New York, N. Y. Bustle.....	383,903	June 5	81	23	43	1136
Olmstead, Eugene M., and J. V. Wemple, Schenectady, N. Y. Car-coupling.....	384,174	June 5	494	135	43	1217
Olmsted, Henry K., Victoria, Ill. Two-wheeled vehicle.....	376,962	Jan. 24	1796	472	42	366
Olney, Asa J., Dash, Mich. Cultivator.....	386,489	July 24	1707	451	44	360
Olney, George R., St. Louis, Mo. Cuckoo.....	388,439	Aug. 28	1923	513	44	962
Olp, Robert, Wakefield, Mich. Sad-iron.....	386,259	July 17	1377	363	44	283
Olsen, Andreas, Ephraim, Utah Ter. Construction of boats.....	378,613	Feb. 28	1895	501	42	890
Olsen, Gunder, Houghton, Dak. Ter. Vehicle-wheel.....	394,718	Dec. 18	1494	390	45	1378
Olson, Adolph, Butler, Mo. Plow.....	378,900	Mar. 6	58	17	42	978
Olson, John L., Warren, Minn. Ditching-plow.....	377,837	Feb. 14	762	194	42	654
Olson, Otto F. (See Landersholm and Olson.)						
Olsson, Joseph, and J. W. Storey, Cotton Gin, Tex. Treasure-vault for railway-cars.....	385,640	July 3	464	120	44	91
Olund, Emil, Hudson, Wis., assignor to N. C. Gridley, Chicago, Ill. Barrel-hoop machine.....	394,543	Dec. 11	1198	{ 312 313 }	{ 45 45 }	1307
Omholt, Johannes, assignor to Chemische Fabrik Gössnitz, Bottiger E. Seidler, Gössnitz, Saxe-Altenburg, Germany. Apparatus for producing metals by means of electrolysis.....	382,183	May 1	446	116	43	595
Oneal, Marma D., Aledo, Tex. Cotton-stalk cutter.....	379,596	Mar. 20	1079	287	42	1184
Oneida Community. (See Kinsley, Myron H., assignor.)						
Oneida Community. (See Sears and Kelley, assignors.)						
Oney, Robert T., Charleston, W. Va. Elevated railway.....	392,632	Nov. 13	675	{ 168 169 }	{ 45 45 }	730
Ongerth, Michael, assignor of one-half to E. Steele, Alameda, Cal. Insecticide.....	385,423	July 3	135		44	28
Ongley, Charles E., New York, N. Y. Switch mechanism for electric batteries.....	389,001	Sept. 4	277	74	44	1126
Ongley, Charles E., New York, N. Y. Safety apparatus for elevators.....	389,853	Sept. 18	1607	424	44	1393
Ongley, Charles E., New York, N. Y. Circuit-closing mechanism.....	391,855	Oct. 30	2353	639	45	492
Opel, John N., St. Louis, Mo. Shoe-clasp.....	388,909	Sept. 4	155	41	44	1102
Oppenheim, Louis, New York, N. Y. Window-sash.....	394,003	Dec. 4	389	105	45	1146
Opperman, Conrad, Louisville, Ky. Jar-fastener.....	375,890	Jan. 3	216	59	42	46
Oppfelt, Victor. (See Johnson and Oppfelt.)						
Orcutt, Edward L., Somerville, Mass. Rail-connection for electric railways.....	378,517	Feb. 28	1756	464	42	863
Orcutt, Edward L., Somerville, Mass. Relay-magnet.....	378,552	Feb. 28	1812	478	42	874
Orcutt, Edward L., Somerville, Mass. Railway signaling system.....	387,316	Aug. 7	176	46, 47	44	605
Orcutt, Edward L., Somerville, Mass. Electric switch-lock.....	387,365	Aug. 7	245	63	44	619
Orewiler, Elza, and E. R. Larcum, Upper Sandusky, Ohio. Boiler.....	387,805	Aug. 14	911	236	44	754
Orford Copper Company. (See Kiddie, Thomas, assignor.)						
Orford Copper Company <i>et al.</i> (See Thomson, John L., assignor.)						
Orford, John M., Bridgeport, Conn. Power-translator for driving fans.....	389,665	Sept. 18	1328	347	44	1337
Orlikowski, Fraok, Cleveland, Ohio. Street-roller.....	394,129	Dec. 4	575	154	45	1181
Orme, Alexander, Detroit, Mich. Safety-valve.....	391,814	Oct. 30	2292	692	45	480
Ormsbee, John M., <i>et al.</i> (See Drodzowski, Julius R., assignor.)						
Orphy, John W., assignor to C. T. Ham Manufacturing Company, Rochester, N. Y. Tube.....	390,699	Oct. 9	676	185	45	146
Orr, Charles A., <i>et al.</i> (See Johnson, Willis H., assignor.)						
Orr, John S., Augusta, Ky. Lifting-jack.....	384,066	June 5	336	95	43	1184
Orr, John S., Augusta, Ky. Fence.....	384,270	June 12	644	173	43	1253
Orr, William. (See Brown and Orr.)						
Orr, William, Trenton, N. J. Wire-cloth lathing.....	394,602	Dec. 18	1307	{ 342 343 }	{ 45 45 }	1343
Orr, William, and P. S. Brown, Glasgow, county of Lanark, Scotland. Sheet-metal structure.....	383,759	May 29	2812	{ 740 741 }	{ 43 43 }	1088
Orrell, Ephraim E., assignor to Otis Company, Ware, Mass. Warping and balling machine.....	381,164	Apr. 17	1317	352	43	273
Ortman, Barnim F., Buffalo, N. Y. Dust-collector.....	387,437	Aug. 7	353	91	44	642
Orton, Benjamin F., Philadelphia, Pa. Drive-chain.....	387,006	July 31	2492	654	44	516
Osborn, Alexander, Saybrook, Ohio. Instrument for measuring distances.....	376,338	Jan. 10	866	227	42	175
Osborn, Alvah P., assignor to F. D. Barto, Trumansburg, N. Y. Type-writing machine.....	387,534	Aug. 7	494	{ 129 130 }	{ 44 44 }	669
Osborn, Bennet, Newark, N. J. Paper box.....	383,537	May 29	2496	659	43	1023
Osborn, Bryan H. (See Kinney, Charles A., assignor.)						
Osborn, Frederick G., Newark, N. J., assignor to E. Faber, New York, N. Y. Eraser-holder.....	377,209	Jan. 31	2149	562	42	443
Osborn, Richard F., Moweaqua, Ill. Car-coupling.....	393,446	Nov. 27	1849	487	45	978
Osborne & Company, D. M. (See Case, Henry J., assignor.)						
Osborne & Company, D. M. (See Clapp, Mortimer A., assignor.)						
Osborne & Company, D. M. (See Miller and Butterfield, assignors.)						
Osborne & Company, D. M. (See Murdock, Fredrick A., assignor.)						
Osborne & Company, D. M. (See Young, Calvin, assignor.)						
Osborne, David L., Detroit, Mich. Smokeless furnace.....	390,798	Oct. 9	834	222	45	171
Osborne, David M. (See Corey, Rufus H., assignor.)						
Osborne, John W., Washington, D. C. Type-writing machine.....	383,480	May 29	2400	639	43	1066
Osborne, John W., Washington, D. C. Type-writing machine.....	383,481	May 29	2402	639	43	1066
Osborne, John W., Washington, D. C. Type-writing machine.....	383,482	May 29	2407	640	43	1066
Osborne, John W., Washington, D. C. Eraser.....	383,483	May 29	2410	640	43	1067
Osborne, John W., Washington, D. C., assignor to W. H. Forbes, Boston, Mass. Lithographic printing.....	391,065	Oct. 16	1247	{ 332 333 }	{ 45 45 }	256
Osborne, Theodore B., Plainfield, N. J. Sash-lock.....	391,384	Oct. 16	1690	447	45	339
Osborne, Wilbur F., Ansonia, Conn. Bustle.....	376,394	Jan. 10	936	245	42	188
Osborne, Wilbur F., Ansonia, Conn. Buckle.....	391,332	Oct. 16	1613	427	48	325
Osborne, William T., and J. Johnson, Martling, Ala. Velocipede.....	391,333	Oct. 16	1614	427	45	325
Osgood, Ralph R., Albany, N. Y. Excavator.....	388,910	Sept. 4	156	41	44	1102
Osmer, William H., St. Louis, Mo. Coat.....	384,214	June 5	552	152	43	1228
Osmer, William H., assignor to Burkart-Osmer Pad Manufacturing Company, St. Louis, Mo. Pad-fastening.....	393,783	Dec. 4	70	20	45	1086
Osmond, William W., Green Ridge, Pa. Device for sealing fruit-jars.....	380,921	Apr. 10	932	248	43	191
Osmun, Alonzo M., Shamokin, Pa. Tag.....	389,000	Sept. 4	276	74	44	1126
Osmun, Elisha M., <i>et al.</i> (See Chidester, David D., assignor.)						
Ost, Elias G., Shelburne, Mass. Die for straightening knives and forks.....	379,597	Mar. 20	1080	{ 287 288 }	{ 42 42 }	1184
Osteman, Albert. (See Barber and Osteman.)						
Osterberg, August, Brøndbyøster, Denmark. Window hanger or hinge.....	389,241	Sept. 11	685	174	44	1210
Osterberg, Charles. (See Nell, August F., assignor.)						
Osterberg, Per C., Örebro, Sweden. Cigar-retailer.....	387,103	July 31	2620	689	44	540
Ostermann, Heinrich, and A. Prip, Geneva, Switzerland. Metallic alloy.....	381,718	Apr. 24	2132		43	451
Ostermann, Heinrich, and A. Prip, Geneva, Switzerland. Alloy.....	382,826	May 15	1413		43	801
Ostermann, Heinrich, and A. Prip, Geneva, Switzerland. Alloy.....	382,827	May 15	1413		43	801
Ostermann, Heinrich, and C. Lacroix, assignors to Usine Genevoise de Degrossissage d'Or, Geneva, Switzerland. Metallic alloy.....	381,719	Apr. 24	2133		43	451

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.
			Spec.	Dr. & C.	Page.
Ostermann, Heinrich, and C. Lacroix, assignors to Usine Genevoise de Dégrossissage d'Or, Geneva, Switzerland. Metallic alloy .....	388,145	Aug. 21	1487	.....	44 871
Ostermann, Heinrich, and C. Lacroix, assignors to Usine Genevoise de Dégrossissage d'Or, Geneva, Switzerland. Metallic alloy .....	388,146	Aug. 21	1488	.....	44 871
Ostermann, Heinrich, and C. Lacroix, assignors to Usine Genevoise de Dégrossissage d'Or, Geneva, Switzerland. Metallic alloy .....	388,147	Aug. 21	1488	.....	44 872
Osternayer, Eugen, Erfurt, Prussia, Germany. Production of iodized sulpho-acids of phenols, &c. ....	393,388	Nov. 27	1771	.....	45 963
Ostrander, Christopher, Sun Prairie, Wis. Ironing-table .....	383,189	May 22	1955	513	43 917
Ostrander, William R., Brooklyn, N. Y. Pneumatic annunciator .....	382,051	May 1	265	69	43 562
Ostrander, William R., New York, N. Y. Pneumatic door-opener .....	392,451	Nov. 6	409	102	45 671
Otenhouse, Henry, McKinney, Tex. Car-brake .....	390,513	Oct. 2	448	116	45 91
Otis, Charles G., Brooklyn, N. Y. Elevator .....	377,635	Feb. 7	426	109	42 576
Otis, Charles G., Brooklyn, N. Y. Hydraulic motor .....	377,636	Feb. 7	429	100	42 576
Otis, Charles R., Yonkers, N. Y. Safety device for elevators .....	390,032	Sept. 25	1868	494	44 1452
Otis, Charles R., Yonkers, N. Y. Elevator .....	390,033	Sept. 25	1870	495	44 1452
Otis Company. (See Orrell, E. E., assignor.)					
Otis, William C., et al. (See Enos, John A., assignor.)					
Ott, August, Milwaukee, Wis. Hide-scraping machine .....	387,903	Aug. 14	1061	280	44 782
Ott, Frederick, Gloucester City, N. J. Let-off mechanism for looms .....	392,284	Nov. 6	157	41	45 623
Ott, Frederick, Estrella, Cal. Car-coupling .....	395,072	Dec. 25	2081	537	45 1502
Ott, George R. (See Selden and Ott.)					
Otterson, Thomas G., Woodbury, N. J. Preserve-jar fastening .....	377,687	Feb. 7	509	130	42 591
Otto, Fred H., Galva, Iowa. Truck .....	378,937	Mar. 6	110	32	42 988
Otto, Gustav, Jersey City, N. J. Plug for making electrical connections .....	379,598	Mar. 20	1083	288	42 1184
Otto, Nicolaus A., Cologne, Prussia, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Motor-engine worked by combustible gas .....	383,065	May 15	1775	459	43 872
Otto, Nicolaus A., Cologne, Prussia, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Igniting apparatus for gas-motor engines .....	386,929	July 31	2381	626	44 494
Otto, Nicolaus A., Cologne, Prussia, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Apparatus for heating the ignition-tubes of gas-motor engines .....	388,301	Aug. 21	1719	459	44 918
Otto, Nicolaus A., Cologne, Prussia, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Motor-engine worked by combustible gas vapor or spray .....	388,302	Aug. 21	1720	459	44 919
Otto, Nicolaus A., Cologne, Prussia, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Igniting apparatus for gas-motor engines .....	388,303	Aug. 21	1722	460	44 919
Otto, Nicolaus A., Cologne, Prussia, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Gas-motor engine .....	388,372	Aug. 21	1836	487	44 938
Otto, Nicolaus A., Cologne, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Motor-engine worked by combustible gas or vapor and air .....	390,091	Sept. 25	1967	524	44 1473
Otto, Nicolaus A., Cologne, assignor to Gas Motoren Fabrik Deutz, Deutz on the Rhine, Germany. Igniting apparatus for gas or oil motor-engines .....	390,092	Sept. 25	1969	524	44 1473
Otto, Nicolaus A., Cologne, assignor to Gas Motoren Fabrik Deutz, Deutz, Germany. Valve apparatus for gas or oil motor engines .....	394,080	Dec. 4	500	134	45 1167
Outcalt, Miller. (See Duffy and Relling, assignors.)					
Outt, Nelson R., Attica, Kans. Spool-holder .....	395,169	Dec. 25	2247	577	45 1531
Over, William S., Callensburg, Pa. Apparatus for making springs .....	390,892	Oct. 9	966	255	45 176
Overaker, William, Hillsborough, N. C. Stock-tether .....	381,273	Apr. 17	1471	395	43 302
Overbey, Hugh L. T., Summerville, Ga. Belt-punch .....	383,237	May 22	2027	532	43 931
Overend, Andrew, Philadelphia, Pa. Stereotype-plate holder .....	389,715	Sept. 18	1402	366	44 1352
Overing, William A., et al. (See Henry, Charles A., assignor.)					
Overlack, Bernard, Boston, Mass., assignor to Overlack Elastic Composition Company, Saco, Me. Jar for galvanic batteries .....	387,654	Aug. 14	697	179	44 713
Overlack Elastic Composition Company. (See Overlack, Bernard, assignor.)					
Overman, Albert H. (See Dearlove and Thresher, assignors.)					
Overman, Albert H. (See Starley, William, assignor.)					
Overman, Albert H. (See Thresher, Harry, assignor.)					
Overman, Albert H., Chicopee, Mass. Vehicle-wheel .....	388,068	Aug. 21	1327	358	44 844
Overman, Albert H., Newton, assignor to Overman Wheel Company, Boston, Mass. Velocipede .....	381,274	Apr. 17	1472	396	43 302
Overman, Albert H., Newton, assignor to Overman Wheel Company, Boston, Mass. Saddle for bicycles .....	392,821	Nov. 13	958	246	45 786
Overman, Albert H., Newton, and C. F. Hadley, Chicopee, assignors to Overman Wheel Company, Boston, Mass. Brake for velocipedes .....	385,370	July 3	46	14	44 11
Overman, Eugene V. (See Bartholomew, George E., assignor.)					
Overman Wheel Company. (See Boudreau, Leon, assignor.)					
Overman Wheel Company. (See Hadley, Charles F., assignor.)					
Overman Wheel Company. (See Overman, Albert H., assignor.)					
Overman Wheel Company. (See Overman and Hadley, assignors.)					
Overman Wheel Company. (See Sponsel, Charles W., assignor.)					
Overton, Chester A., and O. E. Ingersoll, Bliss, Nebr. Well-sinking machine .....	394,719	Dec. 18	1496	391	45 1379
Overton, Vally C., Mobile, Ala. Attachment for window-frames .....	389,405	Sept. 11	919	240	44 1255
Owasco Company. (See Schreiber, Charles, assignor.)					
Owen, Alva, Chicago, Ill. Wire-forming machine .....	390,514	Oct. 2	448	116	45 91
Owen, Alva, Chicago, Ill. Wire-cutting machine .....	390,515	Oct. 2	450	117	45 91
Owen, Alva, Chicago, Ill. Wire-forming machine .....	390,893	Oct. 9	967	255	45 196
Owen, Alva, Chicago, Ill. Machine for forming wire clamps .....	392,878	Nov. 13	1032	265	45 802
Owen, Alva, Chicago, Ill. Wire-coiling machine .....	393,920	Dec. 4	255	74	45 1124
Owen, Asa K., Lake Geneva, Wis. Binder .....	390,984	Oct. 9	1113	294	45 223
Owen, Benajah D., Waco, Tex. Machinery for irrigating purposes .....	390,136	Sept. 25	2028	540	44 1485
Owen, Charles N., Mechanicsburg, Pa. Swathing attachment for harvesters .....	383,317	May 22	2147	566	43 952
Owen, Cornelia H., De Land, Fla. Hemstitching .....	385,772	July 10	660	173	44 137
Owen, David A., Hinsdale, N. H. Bench-dog .....	376,206	Jan. 10	659	182	42 141
Owen, Frank A., and J. A. Harvey, Burlington, Vt. Machine for extracting oils from wool .....	379,508	Mar. 20	1399	372	42 1248
Owen, Herbert S., Washington, D. C. Bicycle .....	392,523	Nov. 6	506	126	45 691
Owen, James. (See Renshaw, Elmer E., assignor.)					
Owen, Jesse N., Butler, Mo. Fuel composition .....	379,490	Mar. 13	415	.....	42 1146
Owee, Thomas P., York, Nebr. Permutation-padlock .....	391,066	Oct. 16	1232	333	45 257
Owen Thomas P., York, Nebr. Attachment for draftsman's compasses for measuring lines .....	391,067	Oct. 16	1253	333	45 257
Owens, Andrew J., Rushville, Ind. Insect-destroyer .....	389,482	Sept. 11	1034	276	44 1276
Owens, John B., Jackson, Tenn. Draft-tool for cars .....	384,588	June 12	1118	295	43 1340
Owens, John L., Minneapolis, Minn. Grain-separator .....	389,002	Sept. 4	279	74	44 1126



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Owens, William J., Utica, N. Y. Grate.....	387,566	Aug. 7	566	148	44	681
Oxland, Charles. (See Oxland, Robert and C.)						
Oxland, Robert, Plymouth, county of Devon, and C. Oxland, Sydenham, county of Surrey, England. Treatment of ores and materials containing sulphur for the extraction of metals and other constituents.....	381,809	Apr. 24	2248		43	473
Oxley, Lemuel. (See Newsom and Oxley.)						
Oyler, William R., Topeka, Kans. Post-extractor.....	376,903	Jan. 24	1719	451	42	351
Oyster, Daniel C. (See Ingraham and Hubbell, assignors.)						
Paar, Charles L. (See Pentz, Levi, assignor.)						
Pacific Indicator Company. (See Irvin, Edwin S., assignor.)						
Pacific Indicator Company. (See Knight, John, assignor.)						
Pacific Indicator Company. (See Lyon, Benjamin W., assignor.)						
Pack, William H., Philadelphia, Pa. Cartridge-loading block.....	394,288	Dec. 11	826	219	45	1238
Packard, Inrank A., and J. D. Struble, Salina, Kans. Soap.....	394,289	Dec. 11	827		45	1238
Packard, James W., New York, N. Y. Manufacture of filaments for electric incandescent lamps.....	383,484	May 29	2412	641	43	1007
Packard, James W., New York, N. Y. Rheostat.....	385,001	June 26	1741	450	43	1479
Packard, James W., New York, N. Y. Electrical testing apparatus.....	390,310	Oct. 2	151	42	45	33
Packard, James W., New York, N. Y. Manufacture of incandescent-lamp filaments.....	391,815	Oct. 30	2294	632	45	480
Packard, James W., New York, N. Y. Flashing apparatus for carbon filaments.....	391,816	Oct. 30	2295	633	45	480
Packard, James W., New York, N. Y. Apparatus for exhausting air.....	392,686	Nov. 13	747	190	45	744
Packard, Jerome L., Boston, assignor to J. W. Brooks, trustee, Cambridge, Mass. Tread-guard for cutter-heads.....	388,578	Aug. 28	2115	567 568	44	1000
Packard, Joseph. (See Stevens and Packard.)						
Packer, Alonzo C., Pittsburg, Pa. Locomotive-truck.....	385,476	July 3	210	55	44	42
Packer, George W., Rock Falls, Ill. Slat-and-wire-fence machine.....	377,327	Jan. 31	2323	675	42	474
Packer, John F., assignor to D. Bradley Manufacturing Company, Chicago, Ill. Cultivator.....	382,184	May 1	447	117	43	576
Packer, John F., assignor to D. Bradley Manufacturing Company, Chicago, Ill. Attaching mold-boards.....	382,185	May 1	448	117	43	596
Packer, John F., assignor to D. Bradley Manufacturing Company, Chicago, Ill. Attaching colters.....	382,435	May 8	834	214	43	678
Packer, John H., Newport, Ky., assignor of one-half to C. N. Avery, Cincinnati, Ohio. Metallic roofing.....	393,516	Nov. 27	1972	514	45	1002
Packer, Richard, Chester, Pa. Electrode for secondary batteries.....	380,922	Apr. 10	933	249	43	191
Packer, Richard, and I. E. Cochran, Jr., Chester, Pa. Electric-light burglar-alarm indicator.....	393,657	Nov. 27	2185	573	45	1045
Packer, Willard N., Cleveland, Ohio. Belt-fastener.....	384,465	June 12	926	241	43	1305
Packham, William H., Dresden, Ontario, Canada. Stove-pipe thimble.....	393,121	Nov. 20	1378	360	45	876
Paddock, Hamlin, assignor to E. & T. Fairbanks & Company, St. Johnsbury, Vt. Platform weighing-scale.....	376,042	Jan. 3	441	117	42	89
Padmore, Casper, and M. A. T. Gillbee, Philadelphia, Pa. Card-gilding machine.....	378,018	Feb. 14	1917	265 266	42	706
Pagán, Orestes, assignor of two-thirds to W. H. Mattison, Philadelphia, Pa. Clapper or rattler device.....	385,002	June 26	1742	450 451 451	43	1479
Page, Albert G., San Francisco, Cal. Fire-shutter for elevator-shafts.....	386,490	July 24	1708	452	44	360
Page, Charles F., et al. (See Gane, Jean V., assignor.)						
Page, Flora K. (See Page, Thomas S., assignor.)						
Page, Frank R. (See Miller and Page.)						
Page, Frederick J., et al. (See Gane, Jean V., assignor.)						
Page, George F., Concord, N. H. Machine-bolting.....	385,682	July 3	521	135 136	44	102
Page, George F., Concord, N. H. Bolting.....	394,503	Dec. 11	1129	293	45	1295
Page, La Fayette W., and S. Hardeman, Franklin, Tenn. Animal-trap.....	378,972	Mar. 6	154	44	42	996
Page, Thomas S., Toledo, assignor to F. K. Page, Akron, Ohio. Metal wheel.....	392,748	Nov. 13	842	214	45	763
Page, Thomas S., Toledo, assignor to F. K. Page, Akron, Ohio. Metal wheel.....	392,749	Nov. 13	843	215	45	763
Paget, Leonard, Trenton, N. J., assignor to Macracon Storage Battery Company, New York, N. Y. Storage-battery.....	393,573	Nov. 27	2049	537	45	1019
Paget, Leonard, Trenton, N. J., assignor to Macracon Storage Battery Company, New York, N. Y. Electric-light regulator.....	393,574	Nov. 27	2051	537	45	1020
Paget, Leonard, assignor to Macracon Storage Battery Company, New York, N. Y. Apparatus for propelling cars.....	393,572	Nov. 27	2046	536 537	45	1019
Paget, Leonard, assignor to Macracon Storage Battery Company, New York, N. Y. Secondary battery.....	393,575	Nov. 27	2052		45	1020
Paget, Leonard, assignor to Macracon Storage Battery Company, New York, N. Y. Secondary battery.....	393,576	Nov. 27	2053	538	45	1020
Paget, Leonard, assignor to Macracon Storage Battery Company, New York, N. Y. Secondary battery.....	393,577	Nov. 27	2055	538	45	1020
Paget, Leonard, assignor to Macracon Storage Battery Company, New York, N. Y. Production of zinc chloride, &c.....	393,578	Nov. 27	2057	538	45	1021
Pague, Samuel S., U. S. Army. Gun-rack for tents.....	377,114	Jan. 31	2026	530	42	417
Paige, David O., Detroit, Mich. Electric underground conduit.....	394,207	Dec. 11	690	124	45	1212
Paige, Howe, Minneapolis, Minn. Elevated cable railway.....	395,073	Dec. 25	2082	538	45	1502
Paige, John C. (See Hawkins and Paige.)						
Paige, W. A., et al. (See McKee, Leander H., assignor.)						
Paillard, Charles A., Geneva, Switzerland. Alloy.....	384,709	June 19	1307		43	1386
Paillet, Joseph, assignor of one-half to M. Edighoffer, Springfield, Ohio. Lock.....	380,455	Apr. 3	221	61	43	45
Pain, Willard S., Cambridge, and W. A. Webber, Medford, Mass. Pneumatic cash-carrier apparatus.....	376,159	Jan. 10	617	166 167	42	130
Pain, Willard S., Cambridge, and W. A. Webber, Medford, Mass. Pneumatic cash-carrier apparatus.....	395,293	Dec. 25	2435	626	45	1565
Painchaud, Joseph, and J. Godbout, Haverhill, Mass. Making shoes.....	391,068	Oct. 16	1255	333	45	257
Paine, Seth W., Rochester, N. Y., H. A. Gray, New Haven, Conn., and C. E. Pettee, Hion, N. Y., assignors to W. S. King, Minneapolis, Minn. Lasting-machine.....	387,366	Aug. 7	247	64, 65	44	619
Paine, Walter J., Boston, Mass. Controller for electric circuits.....	393,389	Nov. 27	1772	469	45	963
Painter, George M., Arcola, Mo. Alternative remedy.....	380,343	Apr. 3	51		43	13
Painter, Gwynne E. (See Young and Painter.)						
Painter, Morris L. (See Murphy, Daniel R., assignor.)						
Paithorpe, John E. (See Palmer and Paithorpe.)						
Palm, John Z., Bowmanstown, assignor to T. Schweitzer, Spring Grove, Pa. Car-coupling.....	375,891	Jan. 3	217	59, 60	42	46
Palmer, Adoniran J. and G. H., Brooklyn, N. Y. Combined atomizer and inhaler.....	386,025	July 10	1014	269	44	207
Palmer, Albertus E., Hillsdale, Mich. Reclining-chair.....	376,105	Jan. 10	533	142	42	114
Palmer, Augustus C., Utica, N. Y. Electric punch-register.....	383,485	May 29	2414	641	43	1007

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page.
Palmer, Cassius C., Painesville, Ohio. Apparatus for transmitting power	390,799	Oct. 9	835	223	45	172
Palmer, E. Jerome. (See Manee and Palmer.)						
Palmer, Ellen M. (See Palmer, Seymour C., assignor.)						
Palmer, Frank H., Long Island City, N. Y. Indicator for non-transparent receptacles containing liquids	377,533	Feb. 7	278	71	42	548
Palmer, Frank L., New London, Conn. Machine for sewing comfortables and other fabrics	380,815	Apr. 10	766	210	43	161
Palmer, Frank L., Berkeley, assignor of one-half to N. Clark & Sons, San Francisco, Cal. Belt shifter and trainer	376,339	Jan. 10	867	227	42	175
Palmer, Frank L., Berkeley, assignor of one-half to N. Clark & Sons, San Francisco, Cal. Elevator	376,340	Jan. 10	868	228	42	176
Palmer, George H. (See Palmer, Adoniram J. and G. H.)						
Palmer, Harmon S., Chattanooga, Tenn. Building-block	384,541	June 12	1050	274	43	1328
Palmer, Henry, San Francisco, Cal. Bottle-washing machine	381,638	Apr. 24	2011	528	43	427
Palmer, Henry, Evanston, Ill. Inhaler	384,589	June 12	1119	206	43	1341
Palmer, Henry U., Brooklyn, N. Y. Conveying apparatus	382,052	May 1	266	69, 70	43	562
Palmer, Henry U., Brooklyn, N. Y. Conveying apparatus	389,242	Sept. 11	686	174	44	1210
Palmer, Ezekiah C., assignor of one-half to W. G. Scoggin, Bingen, Ark. Saw	379,719	Mar. 20	1261	336	42	1921
Palmer, Isaac E., Middletown, Conn. Folding mosquito-net, tarlatan, and other piece goods	378,212	Feb. 21	1297	344	42	767
Palmer, Isaac E., Middletown, Conn. Hammock	387,367	Aug. 7	258	65	44	622
Palmer, James A., Philadelphia, Pa. Steam-generator	391,639	Oct. 23	2035	550	45	419
Palmer, James A., Philadelphia, Pa. Boiler-furnace	393,579	Nov. 27	2059	538	45	1021
Palmer, Jeremiah, Brooklyn, N. Y. Horse-rake	391,484	Oct. 23	1827	489	45	375
Palmer, Joel R. (See Martin and Palmer.)						
Palmer, John N., et al. (See Symons, James, assignor.)						
Palmer, John S., Providence, R. I. Preparing hollow stock for the manufacture of jewelry	383,238	May 22	2028	532	43	931
Palmer, John S., Providence, R. I. Plate for shaving gold-plated shells, &c.	383,239	May 22	2030	532	43	932
Palmer, John S., Providence, R. I. Manufacture of gold-plated-wire stock for jewelry	383,240	May 22	2031	533	43	932
Palmer, John S., Providence, R. I. Plate for the manufacture of plated-wire stock	383,241	May 22	2033	533	43	932
Palmer, John S., Providence, R. I. Plated-wire stock for jewelry	394,603	Dec. 18	1309	343	45	1343
Palmer, Levi H., assignor of one-half to N. J. Brockway, Gloversville, N. Y. Screw	378,614	Feb. 28	1896	502	42	891
Palmer, Lyman R. (See Hamilton, Jonathan R., assignor.)						
Palmer, Randall A., East Saginaw, and J. E. Palethorp, Port Huron, Mich. Key-seat-cutting machine	389,243	Sept. 11	688	174	44	1211
Palmer, Samuel D., Rockford, Ill. Churn	378,144	Feb. 21	1208	314	42	749
Palmer, Seymour C., assignor to E. M. Palmer, South Norwalk, Conn. Machine for hardening hats	382,379	May 8	757	192	43	662
Palmer, States D. (See Ketchum and Palmer.)						
Palmer, Stephen, Lansingburg, N. Y. Manufacture of sash-balances	378,712	Feb. 28	2039	538	42	917
Palmer, Stephen, Lansingburg, N. Y. Sash-cord guide	391,817	Oct. 30	2297	623	45	481
Palmer, Stephen B., Cleveland, Ohio. Suspending-holder for paper, paper bags, &c.	381,412	Apr. 17	1674	448	43	343
Palmer, Timothy G., et al. (See Wieg, Hiram J., assignor.)						
Palmer, Truman G., Chicago, Ill. Copy-holding device for type-writers	390,800	Oct. 9	837	223	45	172
Palmer, William, Jr., Rincon, New Mexico Ter. Combined square, bevel, protractor, and level	383,242	May 22	2034	535	43	932
Palmer, William M., Middletown, N. Y. Tire-upsetter	384,778	June 19	1399	365	43	1405
Palter, Alexander, Vienna, Austria-Hungary. Construction of theaters	394,130	Dec. 4	576	154	45	1182
Panyard, Joseph, assignor of one-half to A. Arntz, Muskegon, Mich. Device for plumbing wall-paper, window-shades, &c.	376,341	Jan. 10	870	228	42	176
Pape, Anthony, assignor to J. Morwitz, Philadelphia, Pa. Bung and air vent	381,081	Apr. 10	1197	320	43	240
Paperine Manufacturing Company. (See Ferris, Henry F., assignor.)						
Paquelin, Claude A., Paris, France. Apparatus for automatically generating and burning inflammable vapors	383,538	May 29	2497	659	43	1023
Paradice, Frank H., Denver, Colo. Automatically-operating flushing-tank for closets	385,823	July 10	728	191	44	149
Paradice, Frank H., Denver, Colo. Anti-siphoning trap	387,252	Aug. 7	81	19	44	587
Paradice, Frank H., Denver, Colo. Service or water tank for water-closets	392,359	Nov. 6	271	69	45	645
Paraffine Paint Company. (See Pearce and Beardsley, assignors.)						
Paragon Noiseless School Slate Company. (See Scrymgeour, David, assignor.)						
Paragon Plaster Company. (See Coy, John, assignor.)						
Parcelle, A. L., et al. (See Bridger, Henry C., assignor.)						
Parcelle, Albert L., New York, N. Y. Pendulum for clocks	383,539	May 29	2499	659	43	1023
Parcelle, Albert L., New York, N. Y., assignor to Manhattan Clock Company of Colorado. Electric pendulum clock	384,271	June 12	615	174	43	1254
Parcelle, Andrew M., Denver, Colo. Embroidery-stand	378,901	Mar. 6	59	18	42	978
Pardee, Joel S., New Troy, Mich. Thill-coupling	382,828	May 15	1414	371	43	801
Pardee, William H., Columbia, Dak. Ter. Thill-coupling	394,290	Dec. 11	827	219	45	1239
Pardee, William H., Columbia, Dak. Ter. Thill-coupling	394,291	Dec. 11	828	220	45	1239
Parham, George J., Bedford, Ind. Lawn-mower	391,069	Oct. 16	1255	344	45	257
Parish, Francis M., et al. (See Sutton, Columbus P., assignor.)						
Parish, Richard, Philadelphia, Pa. Nipple for pipe-connections	392,221	Nov. 6	66	16	45	607
Parish, William F., Minneapolis, Minn. Ratchet mechanism for saw-mill set-works	379,656	Mar. 20	1163	307	42	1200
Parish, William F., Minneapolis, Minn. Gang-saw mill	379,657	Mar. 20	1165	308	42	1201
Parish, William F., Minneapolis, Minn. Gang-edger	379,658	Mar. 20	1168	309	42	1202
Parish, William F., Minneapolis, Minn. Edger	379,659	Mar. 20	1169	310	42	1202
Parish, William F., Minneapolis, Minn. Band-saw mill	388,069	Aug. 21	1328	359	44	844
Park, Harvey S., Chicago, Ill. Air-brake	385,198	June 26	2036	521	43	1538
Park, Harvey S., Chicago, Ill. Valve	385,521	July 3	282	72	44	57
Park, Harvey S., Chicago, Ill. Air-brake	393,784	Dec. 4	71	20, 21	45	1086
Park, Hugh. (See Munroe and Park.)						
Park, James W., and W. R. Sanders, Sullivan, Ind. Gate	387,730	Aug. 14	812	210	44	734
Park, William D. (See Legg, Benjamin A., assignor.) (Reissue.)						
Park, William H. (See Bryant, Zenas F., assignor.)						
Park, William R., Philadelphia, Pa. Vapor-burner	378,713	Feb. 28	2041	539	42	917
Parke, Amos S., et al. (See Gregg, John A., assignor.)						
Parke, Amos S., Bay City, Mich. Saw-swaging machine	390,894	Oct. 9	969	256	45	196
Parke, Herve J. (See Heffernan, Thomas D., assignor.)						
Parke, John Y., Philadelphia, Pa. Electric gas-burner	379,977	Mar. 27	1671	446	42	1309
Parker, Anthony F., Charleston, S. C. Whip-roll for looms	384,720	Apr. 24	2133	558	43	451

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Parker, Beaumont, Highlands, Kans., assignor of one-half to L. C. Parker, Kansas City, Mo. Grain-measuring machine.....	392,452	Nov. 6	411	102	45	671
Parker, Charles A. (See Harter and Parker.)						
Parker, Charles J., Alberton, Md. Cooking-vessel.....	388,500	Aug. 28	2005	539	44	979
Parker, Charles M., Lincoln, Nebr. Coupling for vehicles.....	378,714	Feb. 28	2042	539	42	917
Parker, Charles W., Genesee Fork, Pa. Preserving posts, &c.....	378,459	Feb. 28	1681	441	42	846
Parker Company, Charles. (See Kilborn, William W., assignor.)						
Parker Company, Charles. (See Parker, Dexter W., assignor.)						
Parker Company, Charles. (See Parker and Griswold, assignors.)						
Parker, Dexter W., assignor to C. Parker Company, Meriden, Conn. Lamp-fixture.....	381,275	Apr. 17	1473	396	43	302
Parker, Dexter W., and L. F. Griswold, assignors to C. Parker Company, Meriden, Conn. Ornamenting metallic surfaces.....	382,661	May 8	1189	399	43	747
Parker, Edmund A. (See Manlove and Parker.)						
Parker, Edmund A., Rushville, Ill. Wagon-brake.....	381,413	Apr. 17	1675	449	43	343
Parker, Edmund L., et al. (See Manlove and Parker, assignors.)						
Parker, Erastus N., Springfield, Mass. Portable fire-extinguisher.....	381,276	Apr. 17	1475	396	43	306
Parker, Gardner R., assignor to Richardson Manufacturing Company, Worcester, Mass. Lubricating crank-pin.....	379,078	Mar. 6	315	92	42	1025
Parker, George E., et al. (See Vinton, John H., assignor.)	382,896	May 15	1509	395	43	821
Parker, George T., Glasgow, Ky. Horse-detacher.....	385,132	June 26	1944	497	43	1520
Parker, Henry S., Peterson, Iowa. Foot-rest for chairs.....	390,801	Oct. 9	839	224	45	173
Parker, Hiram J. (See Derington and Parker.)						
Parker, Hollan N. D., Chicago, Ill. Vacuum-apparatus coupling.....	387,904	Aug. 14	1062	220	44	783
Parker, Homer N., Winchendon, Mass., assignor to W. M. Caldwell, Brooklyn, N. Y. Pawl- and-ratchet coupling for bit-braces, &c.....	384,865	June 19	1538	400	43	1430
Parker, Hubbard, et al. (See Manlove and Parker, assignors.)						
Parker, James C., Woodston, Kans. Desk-signal.....	391,185	Oct. 16	1414	378	45	288
Parker, Joel C., Grand Rapids, Mich. Combined knife and hammer.....	391,268	Oct. 16	1533	407	45	310
Parker, John. (See Cleeve and Parker.)						
Parker, John, Philadelphia, Pa. Cane-shredding machine.....	387,438	Aug. 7	355	91	44	642
Parker, John B., Grand Rapids, Mich. Artificial tooth.....	383,760	May 29	2213	741	43	1088
Parker, John B., Wardner, Idaho Ter. Razor-caster.....	391,186	Oct. 16	1415	378	45	288
Parker, John D., Fort Riley, Kans. Mural heating system.....	389,003	Sept. 4	280	74, 75	44	1126
Parker, John E., Hamilton, Ontario, Canada. Bolt.....	376,544	Jan. 17	1161	305	42	237
Parker, John G., Tacoma, Wash. Ter. Hand-truck.....	391,554	Oct. 23	1924	518	45	396
Parker, John T., et al. (See Wells, Charles D., assignor.)						
Parker, Joseph A. (See Pratt and Parker.)						
Parker, Joseph N., Vineland, N. J. Pruning implement.....	377,956	Feb. 14	931	242	42	690
Parker, Joseph N., Vineland, N. J. Hoe.....	387,806	Aug. 14	911	236	44	754
Parker, Julia A. (See Parker, Melvin O., assignor.)						
Parker, Lewis C. (See Parker, Beaumont, assignor.)						
Parker, Marshall, Barnesville, and J. E. Tupper, Rothsay, Minn. Water-gage.....	376,255	Jan. 10	753	200	42	155
Parker, Melvin O., assignor to J. A. Parker, Rochester, N. Y. Apparatus for extinguish- ing fires and lights in railway-cars.....	378,938	Mar. 6	111	32	42	988
Parker, P. P., et al. (See Wells, Charles D., assignor.)	393,785	Dec. 4	75	21	45	1087
Parker, Raymond A., Detroit, Mich., assignor to W. S. Lamson, Boston, Mass. Store- service apparatus.....	381,414	Apr. 17	1675	449	43	344
Parker, Sewell A., San José, Cal. Clothes-stand.....	382,550	May 8	1020	261	43	713
Parker, Simon B., Springfield, Mass. Fire-escape.....						
Parker, Thomas, et al. (See Kearney, William F., assignor.)						
Parker, William D., Worcester, Mass., assignor to Aeolian Organ and Music Company, Meriden, Conn. Pneumatic action for musical instruments.....	394,005	Dec. 4	393	106	45	1146
Parker, William D., Worcester, Mass., assignor to Aeolian Organ and Music Company, Meriden, Conn. Pneumatic wind musical instrument.....	394,006	Dec. 4	396	106	45	1147
Parker, William M., Garland, Kans. Truss-bridge.....	394,877	Dec. 18	1771	460	45	1433
Parker, William R., Muddy Creek Forks, Pa. Corn-crib rat-trap.....	387,439	Aug. 7	357	92	44	642
Parkerton, Le Grand, Guilford, Conn. Screw-tap.....	376,342	Jan. 10	871	229	42	176
Parkes, Alexander, Dulwich, county of Surrey, England. Extracting gold and other met- als from sulphide ores or compounds containing the same.....	392,929	Nov. 13	1101		45	815
Parkes, Thomas. (See Reamy, Thomas J., assignor.)						
Parketon, George W., Laurens, assignor of one-half to D. P. Goggans and F. P. McGowan, Laurens County, S. C. Boiler-furnace.....	381,082	Apr. 10	1198	321	43	240
Parkhill, Hugh H., Chicago, Ill. Head-rest.....	389,938	Sept. 25	1737	460	44	1426
Parkhurst, B. H., et al. (See Longwell, Harlin, assignor.)						
Parkhurst, Emily R. (See Dickerson and Tindell, assignors.)						
Parkhurst, Emily R. (See Tindell, Henry, assignor.)						
Parkhurst, Simon, et al. (See Joslin, William C., assignor.)						
Parkinson, Joseph, Bradford, county of York, England. Vise.....	394,292	Dec. 11	829	220	45	1239
Parkis, Charles, Buffalo, N. Y. Sleigh.....	375,767	Jan. 3	63	18	42	16
Parks, Charles E., Watertown, Wis. Box or crate.....	386,157	July 17	1213	334	41	253
Parks, Clarence W., Mecosta, Mich. Creaming-can.....	388,501	Aug. 28	2006	539	44	979
Parks, Dana, Revere, Mass., assignor to Kensington Chair Company, Portland, Me. Chair.....	376,256	Jan. 10	754	200	42	155
Parks, Dana, Boston, Mass., assignor to Land and Sea Safety Ladder Company, of Maine. Flexible extension-ladder.....	385,874	July 10	815	216	44	166
Parks, Levi N., assignor, by mesne assignments, to himself and G. N. Goodspeed, Winchen- don, Mass. Jack-spool.....	378,174	Feb. 21	1246	328	42	756
Parks, Lewis F., Cincinnati, Ohio. Tenoning-tool.....	386,653	July 24	1944	514	44	405
Parks, Nathaniel, Deansville, N. Y. Electric telephone.....	385,956	July 10	919	244	44	188
Parnelee, Arthur W., Worcester, Mass. Hook.....	392,222	Nov. 6	67	17	45	607
Parnelee, Edwin S. (See Treat and Parnelee.)						
Parnelee, Homer, Baltimore, Md. Pipe-wrench.....	379,123	Mar. 6	381	108	42	1037
Parnelee, John H., Bridgeport, Conn. Car-starter.....	387,807	Aug. 14	912	236 237	44	754
Parnelee, John W., and C. J. Cooper, Wilkes-Barré, Pa. Furnace for heating vehicle- axles.....	392,223	Nov. 6	69	17	45	607
Parnelee, Wilbur F., assignor to D. J. Payne, Middletown, Conn. Frame for hammocks, &c.....	381,025	Apr. 10	1089	289 290	43	220
Parnelee, William L., assignor to A. C. Rex, Philadelphia, Pa. Skate-clamp.....	380,458	Apr. 3	223	61	43	45
Parmenter, Allen M., Knoxville, Ill. Heater for animal drinking-troughs.....	387,535	Aug. 7	496	130	44	669
Parmenter, Phoebe, assignor of one-half to A. M. Stearns, Lamar, Mo. Combined corset- and bustle.....	378,518	Feb. 28	1756	464 465	42	863
Parmenter, Zenas. (See Peck, Joseph W., assignor.)						
Parmiter, Philip J., Ansty, near Salisbury, England. Harrow.....	389,593	Sept. 18	1212	317	44	1316

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Parnell, Edward W., and J. Simpson, Liverpool, county of Lancaster, England. Making sodium carbonates by sulphides of the alkaline earths.	382,551	May 8	1021	.....	43	713
Parnell, Edward W., and J. Simpson, Liverpool, county of Lancaster, England. Obtaining hydrogen sulphide.	394,387	Dec. 11	974	.....	45	1268
Parrent, Anthony. (See Parrent, Tousant and A.)						
Parrent, Tousant and A., Somerset, Wis. Hay-press.	392,453	Nov. 6	412	{ 102 103 }	{ 45 }	672
Parrish Bros. and Peck Electrical Company. (See Cole, William R., assignor.)						
Parrish Bros. and Peck Electrical Company. (See Parrish, Myron W., assignor.)						
Parrish Bros. and Peck Electrical Company. (See Parrish and Cole, assignors.)						
Parrish, George W., Salem, Va. Barrel-hoop.	387,536	Aug. 7	498	130	44	669
Parrish, Myron W., assignor to Parrish Bros. and Peck Electrical Company, Detroit, Mich. Electric-signaling apparatus.	381,576	Apr. 24	1921	506	43	409
Parrish, Myron W., and W. R. Cole, assignors to Parrish Bros. and Peck Electrical Company, Detroit, Mich. Dynamo-electric machine.	391,070	Oct. 16	1257	334	45	258
Parrish, Stephen E., Ithaca, Mich. Cracker-box.	393,852	Dec. 4	176	48	45	1105
Parry, David M., Indianapolis, Ind. Planter.	385,568	July 3	357	93	44	71
Parry, William H., New York, N. Y. Groove-cutting tool.	383,589	May 29	2557	676	43	1036
Parshall, Charles H., assignor of one-half to E. Grace, Detroit, Mich. Lubricator.	376,676	Jan. 17	1367	359	42	275
Parsons, Bennard T., Wrightsville, N. J., assignor to Surgical Dilating Syringe Company, of New Jersey. Dilating-syringe.	393,580	Nov. 27	2060	539	45	1022
Parsons, Charles A., Gateshead-on-Tyne, county of Durham, England. Rotary motor.	391,071	Oct. 16	1258	334	45	258
Parsons, Charles C., assignor to J. M. Parsons, Hempstead, N. Y. Detergent.	382,322	May 8	664	.....	43	645
Parsons, Charles C., assignor to J. M. Parsons, Hempstead, N. Y. Detergent.	382,323	May 8	666	.....	43	645
Parsons, Emory S., Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Needle-grooving machine.	386,844	July 31	2257	594	44	470
Parsons, Emory S., Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Machine for cutting off blanks for needles.	394,661	Dec. 18	1406	{ 366 367 }	{ 45 }	1360
Parsons, Francis W., Philadelphia, Pa. Locking-lever for car-couplings.	384,779	June 19	1401	366	43	1405
Parsons, Francis W., Philadelphia, Pa. Car-coupling.	385,000	June 26	1740	450	43	1479
Parsons, Frank R., Providence, R. I. Inkstand.	393,026	Nov. 20	1251	324	45	851
Parsons, G. S. (See Lockwood, William V., assignor.)						
Parsons, George W., Harrisburg, Pa. Railway-frog.	385,066	June 26	1848	473	43	1499
Parsons, Horace W., Wamega, Kans. Stomach-pump.	386,603	July 24	1871	494	44	390
Parsons, Horace W., and J. Hodnit, Wamega, Kans. Electric governor.	386,602	July 24	1870	494	44	390
Parsons, John G., Columbus, Ohio, assignor of one-half to E. Storm, Poughkeepsie, N. Y. Top-prop joint for vehicles.	382,662	May 8	1190	309	43	747
Parsons, John H. (See Gay and Parsons.)						
Parsons, John R., and D. A. Wilcox, Earlville, N. Y. Vehicle.	391,640	Oct. 23	2036	551	45	419
Parsons, Joseph A., Rocky River, Ohio. Portable force-pump apparatus.	383,486	May 29	2417	641	43	1008
Parsons, Julia M. (See Parsons, Charles C., assignor.)						
Parsons, Seneca B., Chicago, Ill. Manufacture of wagon-skeins.	379,026	Mar. 6	244	69	42	1012
Parsons, Seneca B., Chicago, Ill. Machine for making axle-skeins.	383,761	May 29	2814	{ 741 742 }	{ 43 }	1088
Parsons, William B., Jr., New York, N. Y. Construction of troughs for water-closets.	384,175	June 5	495	135	43	1217
Partington, Charles. (See Weir, Partington, Goldsmith, and Harden.)						
Partridge, Charles S., assignor to A. N. Kellogg Newspaper Company, Chicago, Ill. Stereotype-plate-finishing machine.	387,007	July 31	2493	654	44	516
Partridge, Ebenezer, Birmingham, county of Warwick, England. Hub-attaching device.	385,641	July 3	466	121	44	91
Partridge, J. A., et al. (See Elward, John H., assignor.)						
Partz, August F. W., Philadelphia, Pa. Depolarizing compound.	379,180	Mar. 6	446	.....	42	1051
Parvia, Thomas H., Carmi, Ill. Balanced rotary valve.	394,092	Dec. 25	1968	507	45	1479
Pasco, Thomas H., assignor to Detroit Car Wheel Company, Detroit, Mich. Mold for casting.	383,318	May 22	2148	567	42	952
Pascoe, William F. D., and J. W. Raub, South Easton, Pa. Three-way safety-switch.	378,519	Feb. 28	1760	465	42	863
Pasley, John A., Radersburg, Mont. Ter. Rock-drilling machine.	388,711	Aug. 28	2312	622	44	1037
Pasler, Franz, Ottakring, near Vienna, Austria-Hungary. Magazine fire-arm.	385,875	July 10	817	216	44	166
Pasteur Chamberland Filter Company. (See Way, Frank H., assignor.)						
Pataky, Carl. (See Cautius, Arthur, assignor.)						
Patch, Benjamin F., assignor to W. M. Currier, Danvers, Mass. Burnishing-machine.	377,574	Feb. 7	330	85	42	559
Pate, MacDonald, Snow Hill, N. C. Attachment for plows.	385,773	July 10	660	173	44	137
Patent Button Company. (See Platt, Clark M., assignor.)						
Patent Button Company. (See Platt and White, assignors.)						
Patent Button Company. (See White, Albert M., assignor.)						
Patent Lath, Splint, and Match Syndicate. (See Ellis, William, assignor.)						
Paterson, Andrew, McKeesport, Pa. Method of and means for reducing the diameter of tubes.	376,106	Jan. 10	534	112	42	114
Paterson, Andrew, McKeesport, Pa., assignor to National Tube Works Company, Boston, Mass. Vehicle-axle.	380,344	Apr. 3	52	18	43	13
Paterson, Andrew, McKeesport, Pa., assignor to National Tube Works Company, Boston, Mass. Lathe-tool.	382,724	May 15	1277	335	43	773
Paterson, Andrew, McKeesport, Pa., assignor to National Tube Works Company, Boston, Mass. Machine for turning axle-ends.	382,725	May 15	1278	335	43	773
Paterson, Andrew, McKeesport, Pa., assignor to National Tube Works Company, Boston, Mass. Axle-box-milling machine.	383,540	May 29	2500	660	43	1023
Paterson, Andrew, McKeesport, Pa., assignor to National Tube Works Company, Boston, Mass. Axle-collar press.	385,371	July 3	47	14, 15	41	12
Paterson, Edward J. (See Hermite and Cooper, assignors.)						
Paterson, James. (See Reynolds and Paterson.)						
Paterson, John, San Francisco, Cal. Instrument for testing the fairness of steam-engine crank-shafts.	377,115	Jan. 31	2026	530	42	417
Paterson, William. (See Reynolds and Paterson.)						
Paterson, William A., Flint, Mich. Two-wheeled vehicle.	379,599	Mar. 20	1084	288	42	1185
Paterson, William A., Flint, Mich. Road-cart.	381,415	Apr. 17	1677	449	43	344
Pates, William S., Kingman, Kans., assignor of one-third to A. W. Berkey, Kansas City, Mo. Claw-bar.	377,957	Feb. 14	932	242	42	690
Paton, James, Cleveland, Ohio. Protecting device for rolling-mills.	388,440	Aug. 28	1924	514	44	962
Patric, Charles E., Springfield, Ohio. Cultivator.	383,541	May 29	2502	{ 660 661 }	{ 43 }	1024
Patric, Charles E., assignor to Superior Drill Company, Springfield, Ohio. Grain-drill hoe.	393,390	Nov. 27	1774	469	45	963
Patrick, Armena. (See Tousley, Miron G., assignor.)						
Patrick, John J. R., Belleville, Ill. Artificial tooth.	380,512	Apr. 3	311	90	43	63
Patrick, John J. R., Belleville, Ill. Die and punch for making metal crowns for teeth.	381,416	Apr. 17	1678	{ 449 450 }	{ 43 }	344
Patrick, John J. R., Belleville, Ill. Device for regulating teeth.	382,897	May 15	1510	396	43	821
Patrick, John J. R., Belleville, Ill. Dental tool.	383,367	May 22	2215	588	43	965

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Patrick, Walter K., Urbana, Ohio. Double-seaming roofing-tool .....	392,131	Oct. 30	2774	753	45	575
Patrick, Walter K., Urbana, Ohio. Edge-turner for sheet-metal roofing .....	392,132	Oct. 30	2775	754	45	575
Patridge, James O., Wellston, Ohio. Hand rock-drill .....	380,051	Mar. 27	1785	477	42	1330
Pattberg, Hilarius, Jersey City, N. J. Frame for photographs, pictures, &c. ....	388,712	Aug. 28	2313	622	44	1037
Patten, F. Jarvis, Fort Sidney, Nebr. Telegraphy .....	390,802	Oct. 9	840	224	45	173
Patten, Francis J., New York, N. Y. Synchronizing electric motors .....	392,930	Nov. 13	1102	286	45	815
Patten, Francis J., Bath, Me., assignor to J. M. Seymour, New York, N. Y. Synchronizing system for electric motors .....	392,967	Nov. 13	1160	301	45	825
Patten, Francis J., and T. A. Bingham, U. S. Army. Electric annunciator-target .....	394,081	Dec. 4	501	135	45	1168
Patten, Jefferson, Brooklyn, N. Y. Metallic packing for steam-cylinder pistons .....	384,272	June 12	649	174	43	1254
Patten, Jefferson, Brooklyn, N. Y. Metallic packing .....	394,789	Dec. 18	1626	426	45	1406
Patten, Jefferson, Brooklyn, N. Y., assignor of one hundred and thirty-four two-hundredths to I. A. Gard, Bergen Point, C. K. Hamilton, Jr., Summit, and C. H. Mundy, Metuchen, N. J. Hydrocarbon-furnace .....	392,285	Nov. 6	158	41	45	623
Patten, John, New York, N. Y. Nail-driving implement .....	394,604	Dec. 18	1310	343	45	1344
Patten, Stafford & Myer. (See Stafford, Norman, assignor.)						
Patten, William H., Canastota, N. Y. Horse-rake tooth .....	375,892	Jan. 3	219	60	42	47
Patterson, C. Godfrey, <i>et al.</i> (See Barron, Walter J., assignor.)						
Patterson, Francis H., Norristown, Pa. Photographic camera .....	378,973	Mar. 6	155	45	42	997
Patterson, Frank J., and I. P. Davis, assignors to National Cash Register Company, Dayton, Ohio. Cash register and indicator .....	385,199	June 26	2040	521	43	1539
Patterson, George T., New York, and J. W. Dickieson, Brooklyn, N. Y. Combined ruling-machine and printing attachment .....	393,517	Nov. 27	1973	512 513 515	45	1003
Patterson, Jesse E., and A. Noteman, assignors of one-third to W. C. Lloyd and G. F. Worts, Toledo, Ohio. Hydrocarbon-burner .....	381,067	June 5	337	95	43	1185
Patterson, Jesse E., and A. Noteman, assignors of one-third to W. C. Lloyd and G. F. Worts, Toledo, Ohio. Hydrocarbon vaporizer and burner .....	384,068	June 5	339	95	43	1185
Patterson, John H. (See Heady and Patterson.)						
Patterson, John H., Dayton, Ohio. Cash indicator and register .....	382,552	May 8	1021	261 262	43	713
Patterson, John H., Dayton, Ohio. Cash indicator and register .....	353,006	May 15	1664	435 436	43	849
Patterson, John H., Dayton, Ohio. Cash register and indicator .....	383,007	May 15	1671	436	43	852
Patterson, John H., and J. F. Heady, assignors to National Cash Register Company, Dayton, Ohio. Cash register and indicator .....	380,513	Apr. 3	312	90, 91	43	63
Patterson, John S. (See Rancevan, John, assignor.)						
Patterson, Mark B., Queen City, Mo. Horse-power .....	386,026	July 10	1016	270	44	207
Patterson, Peter, assignor to National Tube Works Company, McKeesport, Pa. Apparatus for charging plates and bars into furnaces .....	376,828	Jan. 24	1613	422 423	42	330
Patterson, Peter A. (See Pleasance and Patterson.)						
Patterson, Raymond A., Evanston, Ill. Game .....	388,440	Aug. 7	358	92	44	643
Patterson, Samuel S., Wilkes-Barre, Pa. Venetian blind .....	383,978	June 5	204	59	43	1159
Patterson, Samuel W., Ringgold, Ohio. Trimming-table .....	383,368	May 22	2216	588	43	965
Patterson, Thomas H., East Saginaw, Mich. Sad-iron .....	383,319	May 22	2149	567	43	953
Patterson, William E., Pelican Rapids, Minn. Sawing-machine .....	385,824	July 10	730	191	44	150
Patterson, William G., Clayville, Pa. Operating mechanism for churns .....	376,752	Jan. 24	1484	391	42	307
Patterson, William H. (See Mill, Edward, assignor.)						
Patterson, William R., assignor to Western Electric Company, Chicago, Ill. Telegraph-cable .....	378,175	Feb. 21	1248	328 329	42	756
Patterson, William R., assignor to Western Electric Company, Chicago, Ill. Locking device for cable-splices .....	382,736	May 15	1279	335 336	43	774
Patterson, William R., assignor to Western Electric Company, Chicago, Ill. Manufacture of telegraph-cables .....	382,767	May 15	1334	351	43	784
Patterson, William R., assignor to Western Electric Company, Chicago, Ill. Manufacturing electric cables .....	382,768	May 15	1334	351	43	784
Patterson, William R., assignor to Western Electric Company, Chicago, Ill. Telegraph-cable .....	382,829	May 15	1415	371 372	43	801
Pattison, Thomas. (See Anderson and Pattison.)						
Patton, George A., Altoona, Pa. Cough remedy .....	384,466	June 12	928		43	1306
Patton, Harry J., and J. C. Wisely, Philadelphia, Pa. Apparatus for making candy .....	389,406	Sept. 11	920	240	44	1255
Patton, J. Hervey, <i>et al.</i> (See Patton, William P., assignor.)						
Patton, Robert G., Hanna City, Ill. Harrow .....	386,815	July 31	2258	594	44	470
Patton, Robert J., Waterbury, Conn. Topedo-signal holder .....	381,277	Apr. 17	1476	396	43	303
Patton, William H. (See Saunders and Patton.)						
Patton, William P., Harrisburg, Pa., assignor of one-half to E. I. Nottingham, Washington, D. C. Lock-hinge .....	394,605	Dec. 18	1312	344	45	1344
Patton, William P., assignor of three-fourths to W. T., Sr., and W. T. Hildrup, Jr., J. H. Patton, Harrisburg, Pa., and S. W. Tullock, Washington, D. C. Generating-retort and burner attached .....	380,514	Apr. 3	319	91, 92	43	66
Patzner, William, assignor to Meriden Bronze Company, Meriden, Conn. Lamp-standard .....	387,218	Aug. 21	1583	421	44	890
Paul, George D., <i>et al.</i> (See Vreeland, Cyrus E., assignor.)						
Paul, George D., assignor of one-half to E. Alsdorf, Newark, N. J. Sash-fastener .....	379,124	Mar. 6	381	109	42	1037
Paul, Ludwig, Fürstenberg-on-Oder, Prussia, Germany. Production of disulpho and dicarbo acids of the diamidoazo-benzidines .....	380,402	Apr. 3	140		43	30
Paul, Ludwig, Fürstenberg-on-Oder, Prussia, Germany. Production of disulpho and dicarbo acids of the diamidoazo-benzidines .....	380,403	Apr. 3	143		43	30
Paul, Robert C., Sr. (See Fitzgerald, Michael, assignor.)						
Paulen, Jacob W., Fancy Prairie, Ill. Gate .....	388,502	Aug. 28	2007	539	44	979
Pauli, Elbridge G. (See Hathaway and Pauli.)						
Pauls, August, Brooklyn, N. Y. Pocket-scissors .....	377,637	Feb. 7	430	110	42	577
Paulson, Erik, Astoria, Oreg. Explosive shell .....	390,249	Oct. 2	77	22	45	19
Paulus, Aaron R. (See Moore and Paulus.)						
Paulus, Jacob, Brooklyn, N. Y. Fancet attachment for barrels .....	382,186	May 1	449	117	43	596
Pauly, Peter J., Sr., and J. J. Ligon, St. Louis, Mo. Rotary jail .....	390,093	Sept. 25	1970	524	44	1474
Pavlik, George, Boston, Mass. Garment or coat hanger .....	376,207	Jan. 10	689	183	42	141
Pavver, James G., St. Louis, Mo. Printer's type .....	388,713	Aug. 28	2314	622	44	1037
Paxson, Charles H., assignor to Thomas Manufacturing Company, Springfield, Ohio. Teder-fork .....	377,047	Jan. 31	1913	563	42	395
Paxson, Marion W., Virginia City, Nev. Lamp-filler .....	394,720	Dec. 18	1498	391	45	1379
Paxton, Charles E. (See Davenport, Morris, assignor.)						
Paxton, Samuel, Boone, Iowa. Windmill .....	391,856	Oct. 30	2355	639	45	492
Payne, Dwight J. (See Parmelee, Wilbur F., assignor.)						
Payne, Henry B., Nottingham, England, assignor of one-half to A. G. Jennings & Sons, Brooklyn, N. Y. Jacquard card-punching machine .....	395,075	Dec. 25	2084	530	45	1503



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Payne, Henry B., Radford, county of Nottingham, England, assignor of one-half to A. G. Jennings & Sons, Brooklyn, N. Y. Warp-knitting machine	395,077	Dec. 25	2089	{ 540 541	45	1504
Payne, Henry B., and W. Campion, Nottingham, England; said Campion assignor, by mesne assignments, to A. G. Jennings & Sons, Brooklyn, N. Y. Machine for lacing Jacquard cards	395,076	Dec. 25	2085	{ 539 540	45	1503
Payne, Levi. (See Shibley and Payne.)						
Payne, Moses, Bellevue, Ky. Horseshoe	394,388	Dec. 11	975	257	45	1268
Payne, Samuel A., assignor of two-thirds to J. L. Fisher and J. M. Stout, Scottsburg, Ind. Hand-planter	381,083	Apr. 10	1199	321	43	241
Payne, William H., Grinnell, Iowa, assignor of three-fourths to J. K. Worthington, Kirkwood, and C. D. Moody, Webster Groves, Mo. Harvester	392,687	Nov. 13	749	{ 190 191	45	744
Paynter, David E., Philadelphia, Pa. Drying offal and garbage	387,104	July 31	2623	690	44	541
Peabody, Daniel D., Stoneham, Mass. Dental plugger	387,655	Aug. 14	658	179	44	713
Peabody, George H., Kansas City, Mo. Cartridge for tobacco-pipes	380,590	Apr. 3	429	121	43	88
Peabody, Henry O., Boston, Mass. Fertilizer-distributor	375,768	Jan. 3	61	19, 20	42	16
Peacock, Jacob S., Lancaster, Pa. Sash-fastening	387,105	July 31	2623	690	44	541
Peacock, John W., assignor of two-thirds to C. R. Britton and E. S. Waller, Cleveland, Ohio. Step-ladder and bench combined	383,243	May 22	2036	534	43	932
Pearce, Jacob A., Denver, Colo. Fountain-brush	380,345	Apr. 3	53	18	43	13
Pearce, John, and E. De La Chappelle, Ottawa, Ill. Glass-furnace	390,394	Oct. 2	280	73	45	60
Pearce, John H., New Haven, Conn. Machine for coating fabric with india-rubber upon one or both sides	376,343	Jan. 10	873	229	42	177
Pearce, John H., New Haven, Conn. Apparatus for coating fabric with rubber	376,344	Jan. 10	875	{ 229 230	42	177
Pearce, John S. (See Harvey, Francis H., assignor.)						
Pearce & Jones. (See De Redon, Constant F., assignor.)						
Pearce, Lionel H., Coalbournebrook, Stearbridge, county of Worcester, England. Umbrella or sunshade	386,200	July 17	1378	363	44	283
Pearce, Thomas A. (See Morley and Greenwood, assignors.)						
Pearce, Thomas A. (See Rightmire, Harry C., assignor.)						
Pearce, Truman J., and M. W. Beardsley, Oakland, assignors to Paraffine Paint Company, San Francisco, Cal. Manufacture of paper	378,520	Feb. 28	1761	.....	42	864
Pear, George R. (See Sprague and Pear.)						
Pearl, Adolph, New York, assignor, by mesne assignments, of one-half to T. L. Crittenden, Westfield, N. Y. Bridle-blinder	394,389	Dec. 11	976	257	45	1268
Pearl, Eugene. (See Fish, Sidel E., assignor.)						
Pearl, Sherman S., Halsey, Ore. Carpet-stretcher	385,372	July 3	51	15	44	12
Pearsall, Howard D., London, England. Hydraulic apparatus for raising water, &c.	382,380	May 8	760	193	43	663
Pearson, Charles, deceased; M. Pearson, administratrix, assignor to J. and J. Dobson, Philadelphia, Pa. Pile-cutting mechanism for double-pile-fabric looms	394,606	Dec. 18	1316	314	45	1344
Pearson, Eugene, et al. (See Atkinson, William W., assignor.)						
Pearson, Fred, assignor of one-half to J. C. Graham, Philadelphia, Pa. Pile-warp delivery mechanism for double-pile-fabric looms	383,825	May 29	2923	772	43	1108
Pearson, George D., assignor of one-half to G. E. Drummond, trustee, and R. Cowans, Montreal, Quebec, Canada. Car-coupling	377,770	Feb. 14	661	166	42	636
Pearson, George S., Waterbury, Conn. Shade-bracket attachment	391,187	Oct. 16	1416	378	45	288
Pearson, Mary, administratrix. (See Pearson, Charles.)						
Pearson, Robert L., Chesterville, Md. Corn-harvester	389,004	Sept. 4	281	75	44	1126
Pearson, William E., Saugus, assignor to G. R. Swasey, Boston, Mass. Rotary liquid-meter	380,764	Apr. 10	697	193	43	148
Pearson, William E., Saugus, assignor to N. H. Daniels, Boston, Mass. Valve-gear for compound engines	394,993	Dec. 25	1969	508	45	1179
Pease, Frank, Lynn, Mass. Bag-opening attachment for scoops, &c.	379,491	Mar. 13	915	246	42	1146
Pease Furnace Company, J. F. (See Warner and Austin, assignors.)						
Pease, Horace S., Cincinnati, Ohio. Sad-iron	387,905	Aug. 14	1064	280	44	783
Peasley, Thomas D., Downs, Ill. Automatic grain-measure	394,072	Oct. 16	1260	335	45	258
Peay, Walter W., Toronto, Ontario, Canada. Trap for wells	381,577	Apr. 24	1922	506	43	409
Pechiney, Alfred E., Salindres, Gard, France, assignor to Weldon's Chlorine Processes Company, (limited.) Westminster, England. Manufacture of chlorine	380,895	Oct. 9	971	256	45	196
Peck, Arthur R., Cortland, N. Y. Recorder for money-drawers	387,537	Aug. 7	499	131	44	670
Peck Bros. & Company. (See Moore, Aquila, assignor.)						
Peck, Cassius C., New York, N. Y. Purifying water	394,208	Dec. 11	691	185	45	1212
Peck, Charles F. (See Tesla, Nikola, assignor.)						
Peck, Edmund E., New York, N. Y. Chair-rocker-spring attachment	376,675	Jan. 17	1366	359	42	275
Peck, Eugene H. (See Jones and Peck.)						
Peck, Eugene H., assignor to Meriden Bronze Company, Meriden, Conn. Extension lamp-structure	389,605	Sept. 4	284	76	44	1127
Peck, Eugene H., assignor to A. H. Jones, Meriden, Conn. Latch	392,133	Oct. 30	2777	754	45	576
Peck, Jesse E., Chicago, Ill. Slag-furnace	379,411	Mar. 13	793	213	42	1122
Peck, Jesse E., Chicago, Ill. Slag-furnace	379,600	Mar. 20	1024	{ 288 289	42	1185
Peck, Joseph W., assignor to Z. Parmenter, Waltham, Mass. Machine for the manufacture of crayon pencils	381,810	Apr. 24	2250	588	43	473
Peck, Melinda. (See Adams, Orscnas T. X., assignor.)						
Peck, Obed. (See Bartlett and Peck.)						
Peck, Obed, Rowe, Mass. Tool-handle	379,877	Mar. 20	1527	403	42	1272
Peck, Orrin B., Chicago, Ill. Slag-furnace	379,412	Mar. 13	795	214	42	1123
Peck, Orrin B., Chicago, Ill. Slag-furnace	379,601	Mar. 20	1026	289	42	1185
Peck, Orrin B., Chicago, Ill. Slag-furnace	379,720	Mar. 20	1262	337	42	1221
Peck, Orrin B., Chicago, Ill. Smelting-furnace	385,424	July 3	135	36	44	28
Peck, Orrin B., Chicago, Ill. Steam-generator	385,425	July 3	136	36	44	28
Peck, Orrin B., Chicago, Ill. Separating metals, matte, or metallic compounds from molten slags	392,455	Nov. 6	416	103	45	673
Peck, Orrin B., Chicago, Ill. Desulphurizing ores and decomposing metallic salts	392,456	Nov. 6	418	104	45	673
Peck, Orrin B., assignor to American Slag Furnace Company, Chicago, Ill. Apparatus for treating molten slag or material from smelting-furnaces	392,454	Nov. 6	413	103	45	672
Peck, Stow & Wilcox Company. (See Shepard, Amos, assignor.)						
Peck, Stow & Wilcox Company. (See Whitney, Pardon A., assignor.)						
Peck, Walter A., trustee. (See Bright, Richard A., assignor.)						
Peck, William H. H., et al. (See Snow, James, assignor.)						
Peckham Car Wheel Company. (See Peckham, Edgar, assignor.)						
Peckham Car Wheel Company. (See Richards, William G., assignor.)						
Peckham, Edgar, Syracuse, N. Y., assignor to Peckham Car Wheel Company, of New York. Car-wheel	376,721	Jan. 17	1437	378	42	290

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Peckham, Edgar, Syracuse, N. Y., assignor to Peckham Car Wheel Company, of New York. Car-wheel	376,722	Jan. 17	1438	378	42	290
Peckham, Edgar, Syracuse, N. Y., assignor to Peckham Car Wheel Company, of New York. Car-wheel	376,723	Jan. 17	1440	379	42	290
Peckham, Edgar, Syracuse, N. Y., assignor to Peckham Car Wheel Company, of New York. Car-wheel	376,724	Jan. 17	1441	379	42	291
Peckham, Edgar, and E. Laass; said Laass assignor to himself and C. H. Duell, Syracuse, N. Y. Vehicle-axle	372,058	Feb. 14	1067	280	42	715
Peckham, Merritt, Utica, N. Y. Heating-stove	383,144	May 22	1897	494 495 496	43	965
Peckham, William C., assignor of one-half to J. M. Friedlich, Troy, Ohio. Adjustable shelving	392,061	Oct. 30	2656	722	45	551
Peckover, James, Philadelphia, Pa. Stone-saw	381,811	Apr. 24	2253	559	43	473
Peckover, James, Philadelphia, Pa. Machine for sawing stone	390,034	Sept. 25	1873	495	44	1453
Pedersen, Johannes T., Brooklyn, N. Y. Ratchet-drill stock	386,261	July 17	1380	364	44	283
Pedersen, Johannes T., Brooklyn, N. Y. Tool-holder and tools for the same	386,262	July 17	1381	364	44	283
Pedersen, Johannes T., Brooklyn, N. Y. Tool-holder and tools for the same	386,263	July 17	1382	364	44	283
Pedersen, Johannes T., Brooklyn, assignor to American Bit-Brace Company, Buffalo, N. Y. Tool-holder	390,516	Oct. 2	451	117	45	61
Pedersen, Johannes T., Brooklyn, assignor to American Bit-Brace Company, Buffalo, N. Y. Brace for holding bits or other tools	392,062	Oct. 30	2657	722	45	551
Pedrick, Knott H., Lynn, assignor of one-fourth to F. H. Safford, Newburyport, Mass. Faucet	384,866	June 19	1540	460	43	1430
Peebles, Franklin E., Martinsburg, N. Y. Combined sand-band and wheel-retainer	389,319	Sept. 11	796	203	41	1231
Peepers, William, Hicksville, Ohio. Fence-machine	388,503	Aug. 28	2008	540	44	979
Peerless Button Hole Attachment Company. (See Johnson, Albert W., assignor.)						
Peerless Reaper Company. (See Slentz, Alburice O., assignor.)						
Peery, Hiram W. (See Marrs and Peery.)						
Pect, William. (See Campbell and Pect.)						
Pects, Elias S. (See Damon and Pects.)						
Pectz, John J., assignor to himself and E. J. Biering, Galveston, Tex. Railway-switch	378,213	Feb. 21	1299	344	42	767
Peirce, Almy L., Grand Rapids, Mich. Draw-bridge gate	386,491	July 24	1709	452	44	30
Peirce, Arthur H., Chicago, Ill. Seal-lock	384,069	June 5	340	96	43	1185
Peirce, Charles A., Dover, N. J. Button	385,876	July 10	820	217	44	157
Peirce, Ira C., Hyde Park, Mass. Mechanism for operating sliding doors	386,690	Apr. 10	585	161	43	177
Peirce, James S., Minneapolis, Minn. Manufacture of artificial-stone blocks	378,715	Feb. 28	2043	539	42	918
Peirce, James S., Savannah, Ga. Means for molding artificial stone blocks or tiles for paving and other purposes	378,716	Feb. 28	2044	539	42	918
Pell, Henry W., Rome, N. Y. Spring-vehicle	378,145	Feb. 21	1209	314 315	42	749
Pell, Lyman P., Woburn, Mass. Lamp-bracket	377,907	Feb. 14	859	221	42	674
Pell, Tom B., and J. W. Knox, Lewisport, Ky. Suspender-end	394,721	Dec. 18	1499	391	45	1360
Pellant, Frank E., Janesville, Wis. Cigar-machine	381,812	Apr. 24	2254	559	41	474
Pellinger, George, Akron, Ohio. Fountain-pen	381,417	Apr. 17	1679	450	43	344
Pelton, Russell K., Cleveland, Ohio. Invalid-bed inflating and heating apparatus combined	384,274	June 12	160	175	43	1255
Pemberton, Henry, Jr., Philadelphia, Pa. Dehydrating sodium sulphate	392,286	Nov. 6	161	45	45	624
Pemberton, John H., Los Angeles, Cal. Device for converting motion	378,334	Feb. 21	1491	390	42	601
Pemberton, Samuel, Alpena, Mich. Life-preserver	390,803	Oct. 9	842	224	45	173
Pembroke, Daniel S., Kalamazoo, Mich. Two-wheeled vehicle	378,335	Feb. 21	1493	390	42	601
Pembroke, Daniel S., assignor to W. S. Lawrence, Kalamazoo, Mich. Two-wheeled vehicle. (Reissue)	10,962 380,492	Oct. 9 July 24	1154 1711	305 453	45 41	232 361
Penberthy, Joseph W., Minneapolis, Minn. Dental cabinet						
Pence, Robert S. (See Thomasson and Pence.)						
Pendergast, Daniel. (See Pendergast, John and D.)						
Pendergast, Daniel, Kennebunk, Me. Hand-card	392,287	Nov. 6	161	41	45	264
Pendergast, John, Wrentham, Mass. Carriage-shackle	392,288	Nov. 6	161	42	45	624
Pendergast, John, Boston, and D. Pendergast, Merrimac, Mass. Device for hardening felt goods	390,094	Sept. 25	1971	525	44	1474
Pendergast, Mary, et al. (See Bridewell, Richard F., assignor.)						
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable-grip for railway-cars	387,906	Aug. 14	1065	281 282	44	783
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable railway	387,907	Aug. 14	1067	282 283	44	784
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable railway	387,908	Aug. 14	1073	284	44	785
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable railway	387,909	Aug. 14	1075	284 285	44	785
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable railway	387,910	Aug. 14	1078	285 286	44	786
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Grip for cable-railway cars	387,911	Aug. 14	1080	286	44	787
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Grip for cable-railway cars	387,912	Aug. 14	1082	286 287	44	787
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Traction-cable for railways	387,913	Aug. 14	1085	287	44	788
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Car-starter	387,914	Aug. 14	1087	288	44	788
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Traction device for cable railways	387,989	Aug. 14	1199	325	44	810
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Attachment for cars on cable railways	387,990	Aug. 14	1201	325 326	44	811
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable railway	387,991	Aug. 14	1203	326 327	44	811
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Gripping device for cable railways	387,992	Aug. 14	1206	327	44	812
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Gripping device for cable railways	387,993	Aug. 14	1207	328	44	812
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable railway	387,994	Aug. 14	1210	328	44	813
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Cable railway	387,995	Aug. 14	1211	329	44	813
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Gripping device for cable railways	387,996	Aug. 14	1212	329	44	813

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Gripping device for cable railways	387,997	Aug. 14	1215	330	44	814
Pendleton, John H., Brooklyn, assignor to Rapid Transit Cable Company, New York, N. Y. Means for picking up and dropping cables in cable railways	387,998	Aug. 14	1217	330 331	44	815
Pendleton, John H., Brooklyn, and C. Tiers, assignors, by mesne assignments, to Rapid Transit Cable Company, New York, N. Y. Traction-railway device	390,187	Sept. 25	2106	561	44	1501
Pendleton, John M., New Brighton, N. Y. Electric accumulator	380,765	Apr. 10	698	193	43	148
Pendleton, John W., Greenville, Cal. Adjustable thill-coupling	378,262	Feb. 21	6387	363	42	781
Penfield, William A., assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Lamp-standard	385,569	July 3	358	93	44	72
Peninsular Novelty Company. (See Slater, Warren G., assignor.)						
Peninsular Novelty Company. (See Vinton, John H., assignor.)						
Peniston, Charles W. (See Gurney and Peniston.)						
Pennebaker, Uriah B., and T. B. Ross, Mount Pleasant, Iowa. Butter-worker	390,760	Oct. 9	697	185	45	147
Penney, Fred M., Waterville, N. Y. Playing-card board	376,484	Jan. 17	1073	281	42	221
Pennie, James C., administrator. (See Eagan, George L.)						
Penniman, Russell S. (See Gardner, Perry G., assignor.)						
Pennington, John C., Paterson, N. J. Preparing paper for wrapping metallic articles to prevent tarnishing, &c.	380,515	Apr. 3	322		43	66
Pennington, John C., Paterson, N. J. Dyeing	385,426	July 3	138		44	29
Pennock, Frederick M., Kennett Square, Pa. Road scraping and ditching machine	390,035	Sept. 25	1874	496	44	1453
Pennock, Frederick M., and G. Webster, Kennett, Pa. Road-scraper	389,897	Sept. 25	1650	444	44	1414
Pennock, George B., Brooklyn, N. Y. Electrolyte compound	377,210	Jan. 31	2150		42	443
Pennock, William H., assignor of one-half to J. W. Derrickson, Mermaid, Del. Spring bed-bottom	384,590	June 12	1120	296	43	1341
Pennsylvania Globe Gas Light Company. (See Bridge, Lewis, assignor.)						
Pennsylvania Iron Works. (See Dickinson, Isaac N., assignor.)						
Penoyer, Hiram, Western Saratoga, Ill. Heating and cooling railway-cars	390,701	Oct. 9	698	186	45	147
Penoyer, Hiram, assignor of fifty-one one-hundredths to J. F. Collins and J. E. Hibbs, Washington, D. C. Ventilating cars	388,504	Aug. 28	2010	540	44	980
Pentreose, Emlen G., H. S. Nutting, and W. H. Smith, Tama, Iowa. Fire-extinguishing compound	387,915	Aug. 14	1090		44	789
Pentlarge, Rafael, Brooklyn, N. Y. Bushing for bungs	384,387	June 12	824	214	43	1285
Pentucket Variable Stitch Sewing Machine Company. (See Woodward, Erastus, assignor.)						
Pentz, James A. (See Reckenzann, Anthony, assignor.)						
Pentz, James A. (See Reckenzann and Pentz.)						
Pentz, Levi, Canton, Ohio. Vehicle-spring	390,250	Oct. 2	79	22	45	19
Pentz, Levi, assignor of one-half to C. L. Paar, Canton, Ohio. Vehicle-spring	375,831	Jan. 3	140	41	42	33
Peper, Christian, and C. O. Sobinski, St. Louis, Mo.: said Sobinski assignor of one-half to said Peper. Track-cleaning attachment for street-cars	378,374	Feb. 21	1546	404	42	813
Pepper, James, Star City, Ind. Grain weighing and registering apparatus	379,325	Mar. 13	672	182	42	1098
Pepper, John, Jr., Rome, N. Y. Shaping-machine	375,893	Jan. 3	220	60	42	47
Peppler, Thomas, and D. V. Carhart, Hightstown, N. J. Cultivator	391,641	Oct. 23	2036	551	45	419
Pequinot, Joseph C., Fort Wayne, Ind. Scraper	385,003	June 26	1743	451	43	1479
Percival, David C. (See Morrill and Percival.)						
Percy, William N. (See Bringold, John H., assignor.)						
Perches, Edward, Cleveland, Ohio. Fire-extinguishing apparatus	379,282	Mar. 13	606	166 167	42	1087
Perham, Haven C. (See Clarke and Perham.)						
Perham, Haven C., Lowell, Mass. Dust-trunk for cotton-openers	388,070	Aug. 21	1332	360	44	845
Perin, Charles A., Beeton, Wis. Harrow	379,079	Mar. 6	317	92	42	1025
Perine, Aaron B., Topeka, Kans. Thill-coupling	382,381	May 8	762	193	43	664
Perkes, Augustus C. A., Portland, Oreg. Paper-file	392,750	Nov. 13	844	215	45	764
Perkes, Thomas, London, England. Breach-loading fire-arm	392,457	Nov. 6	420	104	45	673
Perkins, Albert J. (See Henshaw, Charles E., assignor.)						
Perkins, Alice M., La Crosse, Wis. Looping attachment for sewing-machines	390,896	Oct. 9	972	256	45	197
Perkins, Charles G., Hartford, Conn. Electric cut-out	385,067	June 26	1851	473	43	1500
Perkins, Charles G., Hartford, Conn. Electric-lamp switch	392,633	Nov. 13	676	169	45	731
Perkins, Charles G., and J. Tregoning, Hartford, Conn. Electric cut-out	380,766	Apr. 10	699	193	43	148
Perkins, Edwin A., Boston, and D. C. Stuart, Cambridge, Mass., assignors, by mesne assignments, of one third to Meteor Despatch Company, Portland, Me. Pneumatic cash-carrier apparatus	395,170	Dec. 25	2248	577	45	1531
Perkins, Eligia, assignor of one-half to W. C. Howe, Evansville, Ind. Wheel-hub	391,642	Oct. 23	2058	551	45	420
Perkins, Elijah H., Visalia, Cal. Rivet-burr remover	385,133	June 26	1945	497	43	1520
Perkins, Frank H. (See Miller, Louis L., assignor.)						
Perkins, Frank H., Covington, and L. L. Miller, Newport, Ky. Die for finishing box-loops	377,267	Jan. 31	2236	591	42	458
Perkins, George H., Philadelphia, Pa. Box for filling cans with oil or other liquids	383,979	June 5	205	60	43	1160
Perkins, George H., Philadelphia, Pa. Device for testing the physical condition of liquids at given temperatures	383,980	June 5	206	60, 61	43	1160
Perkins, George H., Philadelphia, Pa. Machine for filling cans	384,981	June 5	207	61 62 63	43	1160
Perkins, George H., Philadelphia, Pa. Oil-can	394,390	Dec. 11	978	257	45	1268
Perkins, George H., Philadelphia, Pa. Measuring-faucet for wagon-tanks	394,391	Dec. 11	979	257 258	45	1268
Perkins, Gustavus S., Hartford, Conn. Transom-lifter	386,343	July 17	1480	393	41	302
Perkins, Hazen H., Kewanee, Ill. Husking-pin	380,516	Apr. 3	323	92	43	66
Perkins, Hazen H., Kewanee, Ill. Adjustable chamfer-gage for drawing-knives	388,148	Aug. 21	1489	396	44	872
Perkins, Jacob B., et al. (See Glossop, Gilbert, assignor.)						
Perkins, James J., Greenville, N. C. Cotton-harvester	391,982	Oct. 30	2537	686 687	45	528
Perkins, John M., South Bend, Ind. Vehicle-seat	388,441	Aug. 28	1925	514	44	963
Perkins, Louis W., et al. (See Latham, Ephraim, assignor.)						
Perkins, N. S. (See Hill and Washburn, assignors.)						
Perkins, William A., Clifton, Kans. Draft-equalizer	376,395	Jan. 10	938	246	42	188
Perkins, William C., Sandy Point, Me. Wrench	384,467	June 12	928	241	43	1306
Perkins, Willis J., Grand Rapids, Mich. Shingle-sawing machine	380,346	Apr. 3	53	19, 20	43	13
Perkins, Willis J., Grand Rapids, Mich. Shingle-sawing machine	387,441	Aug. 7	360	92 93 94	44	643
Perkins, Willis J., Grand Rapids, Mich. Log-holding car and clamp for saw-mills	391,269	Oct. 16	1534	407	45	310
Perkins, Willis J., Grand Rapids, Mich. Shingle-sawing machine	391,643	Oct. 23	2040	552	45	420
Pero, George W., assignor of one-half to E. D. Clark, West New Brighton, N. Y. Car-coupling	387,916	Aug. 14	1090	288	44	789

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Perret, David, Neuchâtel, Switzerland. Stem-winding watch.....	378,974	Mar. 6	156	45	42	997
Perret, Fritz, Chaux-de-Fonds, Switzerland. Piston-meter.....	388,714	Aug. 28	2315	622 } 623 }	44	1037
Perret, Richard A., Moers-on-the-Rhine, Germany. Velocipede.....	390,897	Oct. 9	974	256	45	197
Perrigo, Albert S. (See Whiteley and Perrigo.)						
Perrigo, Oscar E. (See Whiteley and Perrigo.)						
Perrin, C. L., <i>et al.</i> (See Young, Thomas J., assignor.)						
Perrin, Charles, assignor of one-third to C. E. Meyer, Springfield, Ohio. Universal joint.....	384,388	June 12	836	214	43	1285
Perrin, Charles H., Jefferson City, Mo. Tanning.....	387,597	Aug. 7	617		44	690
Perrin, John O. (See Erb, Fred, Jr., assignor.)						
Perrine, Alfred T., Providence, R. I., assignor to A. H. Reeder, Cincinnati, Ohio. Shoe or glove fastener.....	383,762	May 29	2819	742	43	1089
Perrine, Robert M., Cleveland, Ohio. Bleaching wax.....	389,893	Sept. 25	1684	444	44	1415
Perrott, Richard A., Cork, county of Cork, Ireland. Kitchen-range or cooking-stove.....	394,293	Dec. 11	830	220 } 221 }	45	1239
Perry, Augustus L., <i>et al.</i> (See Andersson, Charles E., assignor.)						
Perry, Bethune. (See Beardsley and Perry.)						
Perry, Calvin E., assignor of one-half to E. C. Waite, Leicester, Mass. Extension-pole for carriages.....	390,395	Oct. 2	281	74	45	60
Perry, Charles F., Augusta, Me. Cuff-holder.....	389,973	Sept. 25	1783	473	44	1436
Perry, Charles H., Oneida, N. Y. Type-writing machine.....	393,259	Nov. 20	1577	413 } 414 }	45	917
Perry, Edmund. (See Plant and Perry.)						
Perry, Francis H., assignor to C. J. Webb and M. B. Perry, Philadelphia, Pa. Coal-sifter.....	383,412	May 22	2290	608	43	977
Perry, Francis H., assignor to C. J. Webb and M. B. Perry, Philadelphia, Pa. Combined hammock, swing, lounge, and table.....	390,985	Oct. 9	1113	294	45	223
Perry, Frank W., assignor to Hero Fruit Jar Company, Philadelphia, Pa. Machinery for securing linings to jar-caps.....	387,808	Aug. 14	514	237	44	754
Perry, Fred H., Montpelier, Vt. Type-writing machine.....	394,607	Dec. 18	1319	345	45	1344
Perry, Isaac A., Wilmington, Del. Railway-frog.....	380,923	Apr. 10	935	249	43	191
Perry, John E., Wakefield, R. I. Stamp for canceling, &c.....	383,487	May 29	2418	642	43	1008
Perry, Joseph C., <i>et al.</i> (See Buzzell, William R., assignor.)						
Perry, Judson D., Detroit, Mich. Potato-digger.....	383,488	May 29	2419	642	43	1008
Perry, Judson D., Detroit, Mich. Potato-digger.....	388,911	Sept. 4	158	42	44	1103
Perry, Judson D., Detroit, Mich. Tea-kettle cover.....	394,392	Dec. 11	984	258	45	1269
Perry, Maggie B., <i>et al.</i> (See Perry, Francis H., assignor.)						
Perry, Richard, Dunn, Ill. Bundle-carrier for self-binding harvesters.....	391,857	Oct. 30	2356	640	45	493
Perry, Thomas J. (See Napier, William D., assignor.)						
Perry, Thomas O., Tecumseh, Mich. Pneumatic water-elevator.....	382,324	May 8	668	169	43	646
Perry, Thomas O., Tecumseh, Mich. Pneumatic water-elevator.....	382,727	May 15	1280	336	43	774
Perry, Thomas O., Chicago, Ill. Revolving valve.....	387,008	July 31	2494	654 } 655 }	44	517
Perry, William A., <i>et al.</i> (See Hines, Dauphin S., assignor.)						
Perry, William C., Charlestown, R. I. Vehicle-spring.....	384,781	June 19	1401	366	43	1405
Pershing, Frank C., St. Joseph, Mo. Kitchen-cabinet.....	394,878	Dec. 18	1772	460	45	1433
Perzina, Rudolf, Aachen, Prussia, Germany. Dyeing apparatus.....	384,389	June 12	827	215	43	1286
Peslin, Fred C. (See Nemacheck, Frank, assignor.)						
Peters, Charles H. (See Titcomb and Peters.)						
Peters, Christian H., Danville, Ill. Railway signal-lantern.....	385,877	July 10	821	217	44	167
Peters, Daniel, Cincinnati, Ohio. Egg-beater.....	383,489	May 29	2420	642	43	1008
Peters, Dennis. (See Linden, Peter, assignor.)						
Peters, Friedrich H. A., Detroit, Mich. Hoisting-machine.....	382,436	May 8	835	214	43	678
Peters, G. Moore, Xenia, Ohio. Cartridge.....	380,689	Apr. 10	584	161	43	127
Peters, G. Moore, Xenia, Ohio. Cartridge-loading machine.....	383,905	June 5	85	25 } 26 } 27 }	43	1137
Peters, G. Moore, Cincinnati, Ohio. Cartridge-loading machine. (Reissue).....	10,966	Nov. 13	1177	306 } 307 } 308 }	45	830
Peters, George W., Lancaster, Ohio. Button-hole cutter.....	384,710	June 19	1308	342	43	1386
Peters, John, Pottstown, Pa. Adjustable clevis.....	381,578	Apr. 24	1923	507	43	409
Peters, John, assignor of one-half to I. Y. Krause, Pottstown, Pa. Thill-coupling.....	390,188	Sept. 25	2107	562	44	1501
Peters, Richard G., Manistee, Mich. Salt-making apparatus.....	377,268	Jan. 31	2237	591	42	458
Peters, Richard G., Manistee, Mich. Discharge mechanism for vacuum-pans.....	384,070	June 5	341	96	43	1186
Peters, Richard G., Manistee, Mich. Discharge mechanism for vacuum-pans.....	384,071	June 5	342	96	43	1186
Peters, William F., assignor of one-half to Alpine Safe Company, Cincinnati, Ohio. Permutation-lock.....	384,468	June 12	929	241	43	1306
Petersen, Carl W., Brooklyn, N. Y. Swimming apparatus.....	377,638	Feb. 7	431	110	42	577
Petersen, Henry, assignor of one-half to C. Andriessen, St. Louis, Mo. Sectional pedestal-grate.....	382,553	May 8	1027	262	43	715
Petersen, Niels, Copenhagen, Denmark. Machine for grooming animals.....	380,924	Apr. 10	937	249	43	192
Peterson, Albert, Detroit, Mich. Lock for bags or satchels.....	382,728	May 15	1283	336	43	774
Peterson, Charles, Maple Plain, Minn. Baling-press.....	388,579	Aug. 28	2117	568	44	1000
Peterson, Charles G., and C. V. Rundblad, Chicago, Ill. Earth-scraper.....	376,753	Jan. 24	1485	391	42	307
Peterson, George W., Leonardville, Kans. Block-signal.....	382,053	May 1	268	70, 71	43	562
Peterson, Jacob, Niagara, Dak. Ter. Drawer for furniture, &c.....	377,269	Jan. 31	2238	591	42	458
Peterson, James, Burlington, Iowa. Rein-guard for harness.....	376,677	Jan. 17	1369	360	42	276
Peterson, John P., Phillips, Wis. Pocket lumber-gage.....	375,949	Jan. 3	302	81	42	62
Peterson, William F. (See Caldwell and Peterson.)						
Petit, Henri S., and H. S. Bresson, Victoria, Spain. Thermal circuit-closer for fire-alarms.....	388,505	Aug. 28	2011	540	44	980
Petroleum Light and Heat Company. (See Bidelman, Robert M., assignor.)						
Petry, Peter, Newark, N. J. Pencil-sharpener.....	382,437	May 8	836	214	43	678
Pettebone, Robert T., Wyoming, Pa. Apparatus for steaming wood to be afterward bent.....	385,878	July 10	822	217	44	167
Pettee, Charles E. (See Paine, Gray, and Pettee.)						
Pettee Machine Works. (See Kerrivan, John, assignor.)						
Pettee Machine Works. (See Sheridan, James, assignor.)						
Pettett, Robert S. (See Rowand, Francis L., assignor.)						
Pettitt, George E., Miamia, near Kyneton, Victoria. Branding-tool.....	392,360	Nov. 6	272	70	45	646
Petticoffer, David W., Denver, Pa. Farm-gate.....	388,071	Aug. 21	1334	360	44	845
Pettigrew, Charles, <i>et al.</i> (See Treat, Francis H., assignor.)						
Pettigrew, Richard F., <i>et al.</i> (See Sprague, Henry W., assignor.)						
Pettingill, Frank E., Webster, Mass., and T. F. Chappell, Pawtucket, R. I. Car-truck.....	393,921	Dec. 4	276	75	45	1124

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Pettit, Charles C., <i>et al.</i> (See Davidson, John, assignor.)						
Pettit, George, Jr., and A. Bowers, Brooklyn, N. Y. Covering for walls, ceilings, &c.	377,531	Feb. 7	279	71	42	549
Petty, William B., and W. J. Houston, Rome City, Ind. Hand-plov	391,983	Oct. 30	2539	687	45	529
Petze, H. Hermann, <i>et al.</i> (See Schiller, Frederick W., assignor.)						
Peukert, Karl, assignor to Badische Maschinen und Eisengiesserei, vormals G. Sebold and Sebold and Neff, Durlach, Baden, Germany. Match-making machine	386,264	July 17	1383	{ 364 365 }	{ 44 45 }	{ 284 284 }
Pew, Charles H., Jamestown, N. Y. Reclining-chair	378,902	Mar. 6	59	18	42	978
Pew, Joseph N., Pittsburg, Pa. Gas-burner	393,077	Nov. 20	1318	344	45	864
Peyton, Raymond O., Terre Haute, Ind. Stove for burning light fuel	378,615	Feb. 28	1897	502	42	891
Pfaff, Isaac L., Dansville, N. Y. Windmill	379,125	Mar. 6	383	109	42	1038
Pfannkuche, Alfred. (See Pfannkuche, Gustav and A.)						
Pfannkuche, Gustav, Exeter, N. H. Electric-arc lamp	393,447	Nov. 27	1850	{ 487 488 }	{ 45 45 }	{ 978 978 }
Pfannkuche, Gustav, assignor to Brush Electric Company, Cleveland, Ohio. Regulation of alternate-current generators	393,448	Nov. 27	1852	488	45	979
Pfannkuche, Gustav, Exeter, N. H., and A. Pfannkuche, Cleveland, Ohio. System for the distribution of electric energy	389,974	Sept. 25	1784	474	44	1436
Pfannkuche, Gustav, Cleveland, Ohio, and A. Pfannkuche, Exeter, N. H. Dynamo-electric generator	391,270	Oct. 16	1535	407	45	310
Platicher, Mathias, assignor of one-half to W. T. Brown and W. Kirk, Jr., Philadelphia, Pa. Apparatus for charging and discharging secondary batteries	387,988	Aug. 14	1196	324	44	810
Pfau, John L., Jr., Chicago, Ill. Making steel deck and channel beams	393,027	Nov. 20	1252	325	45	852
Pfeiffer, Christian J. (See Rahner, John G., assignor.)						
Pfeiffer, Andrew. (See Noll and Moll, assignors.)						
Pfeiffer, Charles. (See Offroy and Pfeiffer.)						
Pfeil, John, assignor of one-half to V. G. Wilson, Pittsburg, Pa. Spiral spring	394,007	Dec. 4	398	107	45	1147
Pfenning, Carl A., Barmen, Prussia, Germany. Machine for manufacturing buttons	376,783	Jan. 24	1543	406	42	318
Pfenning, Carl A., Barmen, Rittershausen, Prussia, Germany. Button-making machine	386,493	July 24	1712	453	41	361
Pfingst, Louis. (See Bemis and Pfingst.)						
Pfingst, Louis, Boston, Mass. Whiffletree attachment for horse-cars	393,922	Dec. 4	277	75	45	1124
Pfingst, Louis, New York, N. Y., and S. A. Bemis, Springfield, Mass. Cable-grip beam and supporting device therefor	386,344	July 17	1482	{ 393 394 }	{ 44 44 }	{ 303 303 }
Pfister, John G., Buffalo, N. Y. Pipe-coupling	382,107	May 1	344	91	43	576
Pfueger, Ernest F., Akron, Ohio. Harness-rossette	390,702	Oct. 9	700	186	45	147
Pfueger, Ernest F., Akron, Ohio. Sweat-pad fastening	395,171	Dec. 25	2250	578	45	1532
Pfuger, Albert. (See Moehring and Pfuger.)						
Phares, James S., assignor of one-half to G. B. Kendall, Springfield, Ohio. Feed-water heater and purifier	379,540	Mar. 13	985	265	42	1159
Pharris, Henry L., Superior, Nebr. Corn-cultivator	388,912	Sept. 4	159	42	44	1103
Phatt, Gideon K., Toledo, Ohio. Oar and oar-lock	383,244	May 22	2038	534	43	933
Phelan, Frederick E. (See Scott, George, assignor.)						
Phelan, James. (See Nally, Thomas, assignor.)						
Phelan, Joseph. (See Thayer and Phelan.)						
Phelps, Albert, Ansonia, Conn. Clock	391,271	Oct. 16	1537	408	45	311
Phelps, Charles, Salem, Mass. Burglar-alarm	386,265	July 17	1385	365	44	284
Phelps, Charles H., Chicago, Ill. Oil-burner	384,275	June 12	653	175	43	1255
Phelps, Charles H., assignor to Gibson, Parish & Company, Chicago, Ill. Machine for cutting disks from wood	381,947	May 1	68	17	43	528
Phelps, Eugene M. (See Thomson and Phelps.)						
Phelps, George H., <i>et al.</i> (See Pickhardt, Emile, assignor.)						
Phelps, George H., <i>et al.</i> (See Preston, Charles A., assignor.)						
Phelps, George H., <i>et al.</i> (See Warren, Andrew, assignor.) (Reissue.)						
Phelps, George M., Brooklyn, assignor to Western Union Telegraph Company, New York, N. Y. Microphone-transmitter	380,925	Apr. 10	938	250	43	192
Phelps, Homer L. (See Fisk and Phelps.)						
Phelps, Homer L., Athens, Pa. Bearing for street-cars	384,782	June 19	1402	367	43	1405
Phelps, James L., Meadville, Pa. Fruit-drier	383,245	May 22	2038	{ 534 535 }	{ 43 43 }	{ 933 933 }
Phelps, Lamira. (See Lucas, Lamira.)						
Phelps, Lucius B., Jefferson, Ohio. Land-roller and harrow	380,131	Mar. 27	1899	507	42	1353
Phelps, Lyman E., <i>et al.</i> (See Swift, R. K., assignor.)						
Phelps, Thomas H. (See Hyland, Henry H., assignor.)						
Phelps, William S. (See Vogel, Charles, assignor.)						
Phelps, William S., San Francisco, Cal. Cable railway	378,903	Mar. 6	61	18	42	978
Philadelphia Novelty Manufacturing Company. (See Heysinger, Isaac W., assignor.) (Reissue.)						
Philadelphia Specialty Company. (See Moritz, Adam G., assignor.)						
Philadelphia Time Telegraph Company. (See Hexamer, Charles J., assignor.)						
Philbey, Abel. (See Tolhurst, Glazbrook, Philbey, and Lockerbie.)						
Philbrick, Josiah J., assignor of one-third to G. Challoner's Sons, Omro, Wis. Barrel-head-making machine	379,602	Mar. 20	1087	{ 289 290 291 }	{ 42 42 42 }	{ 1185 1185 1185 }
Philbrook, Emmeline W., Boston, Mass. Underwaist	385,570	July 3	360	93	44	72
Philburn, Anthony, and A. Moors, Ashton-under-Lyne, county of Lancaster, England. Stopper for bottles	394,294	Dec. 11	832	221	45	1239
Philon, George, assignor to Dodge Manufacturing Company, Mishawaka, Ind. Upright-saw machine	383,246	May 22	2040	535	43	933
Philon, George, assignor to Dodge Manufacturing Company, Mishawaka, Ind. Turning-lathe	383,369	May 22	2217	588	43	965
Philips, Ferdinand, Philadelphia, Pa. Machinery for making staples	393,482	Nov. 27	1919	502	45	990
Philips, Horace G. (See Clarke, George, assignor.)						
Philips, Israel B., <i>et al.</i> (See Metcalf, George A., assignor.)						
Philips, Josiah G., Easton, Pa. Car-heater	391,073	Oct. 16	1261	335	45	259
Phillips, Ambrose A., Toledo, Ohio. Metal wheel	391,915	Oct. 30	2440	660	45	510
Phillips, Andrew G., San Francisco, Cal. Head and back for lounges	390,703	Oct. 9	701	186	45	147
Phillips, Charles A., <i>et al.</i> (See Thacker, Daniel W., assignor.)						
Phillips, Charles F. (See Phillips, William L., assignor.)						
Phillips, Clayton T. (See Burlingham, Frank, assignor.)						
Phillips Corn Harvester Company. (See Phillips, Darius T., assignor.)						
Phillips, Cornelius J., New York, N. Y. Combined plug and ferrule for wash-tray connections	383,982	June 5	213	63	43	1162
Phillips, Darius T., Chicago, Ill. Corn-husker	394,504	Dec. 11	1130	293	45	1295
Phillips, Darius T., assignor to Phillips Corn Harvester Company, Chicago, Ill. Corn-harvester	378,521	Feb. 28	1762	{ 466 467 }	{ 42 42 }	{ 864 864 }



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Phillips Economical Cable Grip Construction Company. (See Phillips, Elwood C., assignor.)						
Phillips, Elwood C., Richmond, Ind., assignor to A. Warren, St. Louis, Mo., and J. W. March, Cincinnati, Ohio. Tension apparatus	380,347	Apr. 3	62	21	43	15
Phillips, Elwood C., Garden City, Kans., assignor to Phillips Economical Cable Grip Construction Company, Chicago, Ill. Cable railway	388,072	Aug. 21	1335	361	44	845
Phillips, Emory, and A. N. Edwards, Wichita, Kans. Harness-rack	383,983	June 5	214	63	43	1162
Phillips, F. T. (See Ragsdale, Martin S., assignor.)						
Phillips, Francis V., assignor to Chicago Sash Pulley Company, Chicago, Ill. Tool for grooving window-sash	393,260	Nov. 20	1579	414	45	917
Phillips, Francis V., assignor to Chicago Sash Pulley Company, Chicago, Ill. Mortising-machine	394,879	Dec. 18	1773	460	45	1434
Phillips, Franklin, Newark, N. J. Dash-pot for steam-engines	378,105	Feb. 21	1138	297	42	737
Phillips, Franklin, Newark, N. J. Friction-feed mechanism for iron-planers	378,106	Feb. 21	1140	298	42	737
Phillips, George C., Providence, R. I. Manufacture of the bodies of stretch-traps	389,761	Sept. 18	1462	383	44	1365
Phillips, Heman H. (See Walker, Harlan P., assignor.)						
Phillips, Hiram, Columbia, assignor to Kirtley & Phillips, Boone County, Mo. Envelope-tablet	385,320	June 26	2230	571	43	1577
Phillips, James, Washington, Iowa. Castrating-instrument	384,215	June 5	553	572	43	1228
Phillips, John H. (See Waer, Phillips, and Kengla.)						
Phillips, John O., assignor of one-half to B. H. Dorman, Lynn, Mass. Embroidering-machine	382,619	May 8	1126	290	43	735
Phillips, John T., New Castle, Pa. Railway-signal	377,908	Feb. 14	859	291	42	674
Phillips, John W., and F. C. Staley, Kalamazoo, Mich. Two-wheeled vehicle	386,494	July 24	1714	453	44	361
Phillips, Joseph A. (See Blum and Phillips.)						
Phillips, Joseph A., and G. S. Blum, Jr., Baltimore, Md. Button	392,568	Nov. 6	571	144	45	705
Phillips, Joseph E., West Ashford, Conn. Window-shutter	377,771	Feb. 14	663	166	42	637
Phillips, Marshallman H., Verschoyle, Ontario, Canada. Nut-lock	382,054	May 1	269	71	43	563
Phillips, Nimick & Co. (See Carter, Robert A., assignor.)						
Phillips, Selah, Arnot, Pa. Fish-plate	383,763	May 29	2820	742	43	1069
Phillips, William A., San Francisco, Cal. Apparatus for moving cars around curves of cable railways	386,654	July 24	1946	514	44	405
Phillips, William A., assignor to Edison Machine Works, Schenectady, N. Y. Insulated electrical conductor	380,295	Mar. 27	2113	565	42	1397
Phillips, William H., Lincoln, Nebr. Reversible trestle	386,218	July 17	1317	348	44	272
Phillips, William L., assignor to C. F. Phillips, Brooklyn, N. Y. Bed-bottom	381,948	May 1	69	17, 18	43	528
Phillips, William R., Milford, Del. Machine for assorting fruit	376,904	Jan. 24	1720	451	42	351
Phillips, William R., Milford, Del. Apparatus for bleaching	384,867	June 19	1541	400	43	1430
Phillips, Zachariah C., Allegheny, Pa. Fluid-pressure regulator	391,644	Oct. 23	2042	552	45	421
Philp, John W., Humboldt, Tenn. Cutter-head for cutting or trimming gores of barrel-blanks	389,006	Sept. 4	285	76	44	1127
Philpott, James S., Windsor, Cal. Windmill	389,007	Sept. 4	287	76	44	1127
Phlips, Edward H., New Haven, Conn. Joint for cement-lined pipes	383,413	May 22	2291	604	43	977
Phlips, Edward H., New Haven, Conn. Underground electric conduit	388,442	Aug. 28	1926	514	44	963
Phlips, Thomas L., and W. Burman, Ryland Road, Edgbaston, near Birmingham, county of Warwick, England, assignors to L. S. Lee, Philadelphia, Pa. Hair-clipper. (Reissue.)	10,931	May 15	1824	477	43	880
Phipps, William, Milwaukee, Wis. Grate for furnaces, &c	385,957	July 10	921	244	44	188
Piat, Albert, and L. Delaloe, Paris, France. Riveting-machine	392,751	Nov. 13	845	215	45	764
Piatkowski, Julian J. (See Tinlin and Piatkowski.)						
Piatt, William M., assignor of one-third to B. P. Runkle, Mac-o-chee, Ohio. Grain-binder	377,731	Feb. 7	565	145	42	601
Piatt, William M., assignor of one-third to B. P. Runkle, Mac-o-chee, Ohio. Grain-binder	384,072	June 5	343	146	43	1186
Piché, Siméon, Lake Linden, Mich. Portable extension-ladder	391,188	Oct. 16	1417	379	45	288
Pichereau, Asabel P., Galesburg, Ill. Ink or other fluid stand	379,906	Mar. 20	1567	413	42	1278
Pickard, Andrew J., and G. Melson, assignors of one-half to J. Straub and W. I. Vawter, Eugene City, Oreg. Car-coupling	392,968	Nov. 13	1162	301	45	826
Pickering, Charles H., assignor to himself and J. H. B. House, Houston, Tex. Automatic water-trap for cisterns and other receptacles	387,442	Aug. 7	367	94	44	645
Pickering, Frank M., Cincinnati, Ohio. Block for paving, &c	379,027	Mar. 6	247	70	42	1012
Pickering, Leander P., Rochester, assignor of one-fourth to F. W. Yeaton, Concord, N. H. Carpenter's framing-gage	385,321	June 26	2232	572	43	1577
Pickering, Samuel and W., and J. E. Norton; said Samuel and W. Pickering assignors to J. and F. Huddle, Oldham, county of Lancaster, England. Door check and spring	385,958	July 10	923	244	44	189
Pickering, William. (See Pickering and Norton.)						
Pickert, Augustus F., Atlanta, Ga. Compensation watch-balance	387,567	Aug. 7	567	148	44	681
Pickett, Alva L., assignor to Diamond Match Company, New Haven, Conn. Machine for making paper boxes	389,407	Sept. 11	922	241	44	1256
Pickett, William T. (See Carter and Pickett.)						
Pickhardt, Emile, Islington, Mass. Button-loop and safety-pin	384,639	June 19	1195	316	43	1364
Pickhardt, Emile, Islington, Mass. Garment-supporter	392,634	Nov. 13	677	169	45	731
Pickhardt, Emile, Islington, assignor to G. Frost, G. H. Phelps, and G. A. Frost, Newton, Mass. Cuff-holder	386,345	July 17	1484	394	44	303
Pickles, Charles K., assignor to American Roll Paper Company, St. Louis, Mo. Paper-cutter	389,483	Sept. 11	1035	276	44	1276
Pickles, James D., Manchester, Conn., assignor of two-thirds to P. Adams, Paterson, N. J., and J. Symington, Lancaster, Pa. Paper-finishing roll	387,693	Aug. 14	757	193	44	724
Pickles, James D., Manchester, Conn., and W. F. Pickles, Lafayette, Pa. Suction-box for paper-making machines	384,276	June 12	654	175	43	1255
Pickles, John, Bingley, and H. W. Whitehead, Leeds, county of York, England. Combing-machine	384,783	June 19	1405	367	43	1406
Pickles, William F. (See Pickles, James D. and W. F.)						
Pickup, Thomas, Burnley, county of Lancaster, England. Apparatus for collecting and diffusing heat	385,571	July 3	361	94	44	72
Picon, Alexis. (See Babin, Telesphore, assignor.)						
Pidduck, George A., Englewood, Ill. Street-indicator for cars	382,769	May 15	1335	351	43	785
Pielstickier, Carl M., London, county of Middlesex, England. Machine for drawing rods and tubes	382,729	May 15	1284	336	43	775
Pieper, Carl, assignor to Kortenbach & Rank, Weyer, Prussia, Germany. Machine for manufacturing joints of umbrella-ribs	392,879	Nov. 13	1031	266	45	802
Pierce, Abel A., St. Johnsbury, assignor of one-half to J. C. Eaton & Co., Lyndonville, Vt. Water-heater	376,545	Jan. 17	1161	305	42	237
Pierce, Albert L., and G. McKercher; said Pierce assignor to W. W. Wade, Jonesville, Mich. Vehicle-spring gear	392,063	Oct. 30	2658	722	45	551
Pierce, Andrew J., Racine, Wis. Speed-governor	393,853	Dec. 4	177	48	45	1105

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Pierce, Butler & Pierce Manufacturing Company. (See Waggoner, Edward P., assignor.)						
Pierce, Charles, Monticello, Iowa. Belt-tightener	382,007	May 1	185	48	41	548
Pierce, Charles E., Cambridgeport, Mass. Hasp-support for cans or boxes	391,074	Oct. 16	1263	336	45	259
Pierce, Butler & Pierce Manufacturing Company. (See Waggoner, Edward P., assignor.)						
Pierce, Christopher C., Herkimer, N. Y. Hook	377,772	Feb. 14	664	166	42	637
Pierce, Christopher C., Herkimer, N. Y. Coat-hook	377,773	Feb. 14	666	167	42	637
Pierce, Erasmus E., New Brighton, Pa. Nail-finishing machine	379,413	Mar. 13	797	{ 214 215 }	42	1123
Pierce, Eugene F., Boston, Mass., assignor to himself, and F. W. Flood, Wilton, Me. Lamp-holder	385,522	July 3	294	71	44	57
Pierce, F. Arthur, Chicago, Ill. Coupling device for street-cars	388,506	Aug. 28	2012	541	41	980
Pierce, George D., Shelby, Iowa. Elastic pump-rod	389,320	Sept. 11	797	203	44	1231
Pierce, Melvin, and F. Thomas, New Hartford, Iowa. Steam-generator	389,008	Sept. 4	283	76	44	1128
Pierce, Nathaniel G., et al. (See West, James, assignor.)						
Pierce, Nathaniel W., Pawtucket, R. I., assignor of one-half to G. M. Church, New York, N. Y. Knitting-machine	388,786	Aug. 28	2116	652	44	1057
Pierce, Ray V. (See Smith, Elmer S., assignor.)						
Pierce, William B., Ashburnham, assignor of one-half to S. Bent & Brothers, Gardner, Mass. Tray-chair	377,720	Feb. 7	552	141	42	599
Piering, Henry, New York, N. Y. Well	388,219	Aug. 21	1584	{ 421 422 }	44	890
Pierpont, Louis E., Cambridge, Nehr. Vapor-burner	380,404	Apr. 3	144	41	43	30
Pierson, Caleb C., Elizabeth, N. J. Truss-frame for ladders	392,361	Nov. 6	274	70	45	646
Pierson, Henry M., Brooklyn, N. Y. Manufacture of gas	392,458	Nov. 6	421	104	45	673
Pierson, John G., assignor of one-half to D. L. Prouditt, New York, N. Y. Tobacco-box	387,694	Aug. 14	758	193	41	724
Pietzka, Gottfried, Witkowitz, Moravia, Austria-Hungary. Regenerative gas-furnace	389,009	Sept. 4	290	77	44	1128
Piffard, Henry G., New York, N. Y. Photogenic cartridge	383,984	June 5	215	64	43	1162
Piffard, Henry G., New York, N. Y. Photogenic powder	384,927	June 19	1620	.....	43	1445
Pigeon, Charles J., and L. J. T. Lacroix, Paris, France. Tubular floating mattress	381,213	Apr. 24	2256	{ 589 590 }	43	474
Pigman, George H., Reading, Ohio. Spring-support for vehicle-shafts	390,137	Sept. 25	2029	541	44	1486
Pigman, George H., Reading, Ohio. Auxiliary shaft for vehicles	390,138	Sept. 25	2030	541	44	1486
Pigott Time and Fare Register Company. (See Pigott, William, assignor.)						
Pigott, William, assignor to Pigott Time and Fare Register Company, Chicago, Ill. Fare-register	383,008	May 15	1673	{ 437 438 }	43	852
Pihl, Carl G., A. F. W. E., Lowell, Mass. Window-reflector	381,784	June 19	1406	368	43	1406
Pihlstrom, John S. (See Cole and Pihlstrom.)						
Pike, Daniel E., assignor to Western Union Telegraph Company, New York, N. Y. Printing-telegraph	378,107	Feb. 21	1143	298	42	738
Pike, Edward M., J. Castle, and J. B. Schopp, Chenoa, Ill. Frame for brick-kilns	384,469	June 12	930	242	43	1306
Pike, James E., Plymouth, Ind. Foot-rest	383,906	June 5	92	27	43	1138
Pike, William H., Liverpool, county of Lancaster, England. Combined music clip and bow-guide	385,642	July 3	468	121	44	91
Pilcher, John V., Louisville, Ky. Clasp	380,217	Mar. 27	2013	538	42	1376
Pilkington, Jonathan, assignor of one-half to D. D. McCoy, Milwaukee, Wis. Nail-plate-feeding device	392,064	Oct. 30	2,558	723	45	551
Pilliod, Charles J., assignor of one-half to H. S. Bassett, Swanton, Ohio. Automatically-adjustable feed device	383,145	May 22	1899	496	43	905
Pillsbury, Samuel G., assignor of one-half to A. V. Whitcomb, Long Island, Kans. Corn-sheller	380,767	Apr. 10	701	194	43	118
Piloud, David W., Waelder, Tex. Combined cotton chopping, planting, and cultivating machine	383,146	May 22	1901	496	43	906
Pineh, Frank, Sidney, assignor to Excelsior Metallic Packing Company, Middletown, N. Y. Roll-packing	382,187	May 1	450	117	43	596
Pinkney, Cyrus A. (See Hamilton, Clarence J., assignor.)						
Pinkney, Cyrus A., and C. J. Hamilton, Plymouth, Mich. Spring air-gun	390,311	Oct. 2	152	42	45	34
Pine, Albert H., and S. A. Norton, Pine Bluff, Ark. Cracker-box cover	392,459	Nov. 6	424	105	45	674
Pine, Reuben M., Columbia City, Ind. Machine for sharpening saws	385,004	June 26	1745	451	43	1180
Pinetta, José, assignor to H. Grote, Guatemala, Guatemala. Removing fusel-oils from crude spirits	384,868	June 19	1542	.....	43	1430
Pingle, David G. (See Spitzer and Pingle.)						
Pinkerman, James, assignor to P. Hayden Saddlery Hardware Company, Columbus, Ohio. Line-ring for harness	393,261	Nov. 20	1580	414	45	917
Pinkney, Charles W., Smethwick, county of Stafford, England. Hammering machinery actuated by explosive gaseous mixtures	381,869	June 19	1543	{ 401 402 }	43	1430
Pinkowski, Friedrich. (See Klinik, Pinkowski, and Gross.)						
Pinkowski, Friedrich. (See Klinik, Pinkowski, and Sollmann.)						
Pintsch Lighting Company. (See Dixon, Robert M., assignor.)						
Piper, Edwin S., assignor of one-half to S. E. Root, Bristol, Conn. Rotary nozzle-head for water-motors	380,691	Apr. 10	586	161	43	127
Piper, John H., Brooklyn, N. Y. Nut-lock	380,926	Apr. 10	941	250	43	193
Piper, William M., assignor of two-thirds to S. Newbern and C. W. Wolfendale, Allegheny City, Pa. Glass-blowing apparatus	381,887	Apr. 24	2388	621	43	499
Piquet, Ami L., Brassus, assignor to Agassiz Fils, St. Imier, Switzerland. Stop-watch	394,933	Dec. 18	1872	484	45	1451
Pirnie, George, Nyack, N. Y. Whip	375,950	Jan. 3	302	81	42	63
Pitcher, Joseph. (See Hatch and Pitcher.)						
Pitkin, Julian H., and J. F. Steward, Chicago, Ill. Low-level self-binding harvester	388,913	Sept. 4	160	42, 43	44	1103
Pitkin, Julian H., and J. F. Steward, Chicago, Ill. Self-binding harvester	389,939	Sept. 25	1738	460	44	1427
Pitkin, Julian H., Lake View, and J. F. Steward, said Pitkin assignor to W. Deering, Chicago, Ill. Mower	391,075	Oct. 16	1263	336	45	259
Pitkin, Stephen H., Akron, Ohio. Friction-clutch	388,580	Aug. 28	2118	568	44	1000
Pitner, Henry B., La Porte, Ind. Carpet stretcher and tacker	394,934	Dec. 18	1875	485	45	1452
Pitner, Henry B., assignor of one-half to J. F. Croft, La Porte, Ind. Carriage-top	376,414	Jan. 10	966	252	42	193
Pitney, Albert L., Washington, D. C. Device for fastening cords or ropes	375,832	Jan. 3	141	41	42	33
Pitney, Albert L., Washington, D. C. Syringe for hand fire-extinguishers	385,477	July 3	211	55	44	42
Pitrat, Julius E., Gallipolis, Ohio. Weighing and price scale	385,005	June 26	1746	{ 451 452 }	43	1480
Pitt, Walter H. (See Stone and Pitt.)						
Pitt, William A., Glenbrook, Conn. Means and apparatus for collecting and separating sewage	382,188	May 1	451	118	43	597
Pitt, William A., Glenbrook, Conn. Crank and lever motion	382,189	May 1	454	118	43	597
Pitt, William A., Glenbrook, Conn. Steam-engine for equalizing power	383,764	May 29	2821	743	43	1089
Pitt, William A., Glenbrook, Conn. Mechanical movement	386,027	July 10	1017	270	44	207
Pitt, William A., Glenbrook, Conn. Air-compressor	386,028	July 10	1017	270	44	207

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & Co.	Vol.	Page.
Pitt, William H., assignor of one-half to G. H. Van Vleck, Buffalo, N. Y. Distilling petroleum.	379,492	Mar. 13	916	246	42	1146
Pitt, William R., Brooklyn, N. Y. Wire mat.	378,214	Feb. 21	1301	345	42	768
Pitts, Andrew J. and G. W., assignor of one-half to J. G. and C. C. Hudson, De Armanville, Ala. Fence.	382,382	May 8	763	194	43	664
Pitts, George W. (See Pitts, Andrew J. and G. W.)						
Pitts, Thomas W., Wolsey, Dak. Ter. Pneumatic railway.	384,333	June 12	744	195	43	1270
Pitts, William, et al. (See Wilcox, William E., assignor.)						
Pittsburg Tubular Steel Whiffletree Company. (See Kirker, Milton B., assignor.)						
Pittsburgh Brass Company. (See Hipwell, Thomas, assignor.)						
Pittsburgh Forge and Iron Company. (See Wilson, John T., assignor.)						
Pittsburgh Steel Casting Company. (See Hainsworth, William, assignor.)						
Place, C. C., et al. (See Giles, Julian A., assignor.)						
Place, James F., Montclair, N. J. Lamp.	392,822	Nov. 13	959	246	45	786
Place, James F., Montclair, N. J. Lamp.	392,823	Nov. 13	960	246	45	786
Place, John J. W., San Mateo, Fla. Fruit-holding device.	386,604	July 24	1873	494	44	391
Place, William B., assignor to American Buckle and Cartridge Company, West Haven, Conn. Machine for winding wads for paper cartridges.	393,028	Nov. 20	1254	325	45	852
Planbeck, Henry C., Davenport, Iowa. Cigar-mold.	386,894	July 31	2327	611	44	483
Plankinton, William. (See Johnson, Warren S., assignor.)						
Plano Manufacturing Company. (See Blood, Joseph W., assignor.)						
Plant, Richmond, and E. Perry, Birmingham, county of Warwick, England. Resonator for harmonicons.	375,833	Jan. 3	143	41, 42	42	33
Plass, Reuben H., New York, N. Y. Making cut nails.	385,373	July 3	51	15	44	12
Platt, Clark M., Waterbury, Conn. Button-fastener.	388,443	Aug. 28	1927	513	44	963
Platt, Clark M., assignor to Patent Button Company, Waterbury, Conn. Rivet-setting machine.	394,722	Dec. 18	1459	391	45	1380
Platt, Clark M., assignor to Patent Button Company, Waterbury, Conn. Rivet-setting machine.	394,723	Dec. 18	1501	392	45	1380
Platt, Clark M., and F. R. White, assignors to Patent Button Company, Waterbury, Conn. Rivet-setting machine.	380,132	Mar. 27	1900	507	42	1353
Platt, Daniel B., et al. (See Denio, William L., assignor.)						
Plattenburg, Joseph, McKeesport, Pa. Car-floor frame.	379,978	Mar. 27	1674	446	42	1310
Pleasance, Benjamin J., and P. A. Patterson, Cleveland, Ohio. Hoisting and conveying apparatus.	391,423	Oct. 23	1743	466	45	357
Plettner, John, Ai, Ohio. Washing-machine.	392,880	Nov. 13	1035	267	45	803
Plowe, Harold C., assignor of one-half to D. S. Brown, Peoria, Ill. Snare-drum.	389,594	Sept. 18	1213	317	44	1316
Pluche, James F., Watertown, N. Y. Crutch.	384,470	June 12	931	212	43	1306
Plücker, Richard. (See Schütz, Schultes, and Plücker.)						
Plumb, Burdick & Barnard. (See Johnson, Henry J., assignor.)						
Plumb, William H., Lake City, Colo., assignor of one-half to P. P. Dickinson, New York, N. Y. Apparatus for heating railway-cars.	383,247	May 22	2041	535	43	934
Plume & Atwood Manufacturing Company. (See Atwood, Lewis J., assignor.)						
Plume & Atwood Manufacturing Company. (See Eggleston, Thomas, assignor.)						
Plume & Atwood Manufacturing Company. (See Wilder, Elihu, assignor.)						
Plummer, Benjamin M., Philadelphia, Pa. Belt-stretching machine.	394,008	Dec. 4	399	107	45	1147
Plummer, John E., Waterville, N. Y. Machine for marking the uppers of boots or shoes.	387,106	July 31	2625	690 691	44	541
Plummer, William E., et al. (See Enos, John A., assignor.)						
Pneumatic Dynamite Gun Company. (See Pratt, Nat. W., assignor.)						
Pneumatic Gate Company. (See Mills, Mortimer B., assignor.)						
Pocknell, James, Jersey City, N. J. Automatic cut-off for water-tanks.	375,948	Jan. 3	301	81	42	62
Pogue, Joseph S., Rising Sun, Md. Thill-coupling.	393,720	Nov. 27	2270	595	45	1062
Poh, Benjamin W., assignor to himself and P. Steingoecker, Buffalo, N. Y. Pipe-coupling.	384,073	June 5	345	97	43	1186
Pohl, Emilie, Baltimore, Md. Corset.	393,786	Dec. 4	77	21	45	1087
Poindexter, Robert E., Indianapolis, Ind. Saw-jointer.	377,328	Jan. 31	2329	676	42	474
Poirrier, Alcide F., and D. A. Rosenstiel, assignors to Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis, Paris, France. Production of azo colors.	380,927	Apr. 10	943		43	193
Poirrier, Alcide F., and Z. Roussin, assignors to Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis, Paris, France. Production of diazoic coloring-matters.	380,928	Apr. 10	945		43	193
Poittevent, Adolph, Gainesville, Miss. Insulating composition.	393,029	Nov. 20	1258		45	853
Poland, Edward F. (See Poland, John C. and E. F.)						
Poland, John C. and E. F., Boston, Mass. Starching-machine.	391,645	Oct. 23	2043	552	45	421
Poland, Lawrence N. P., Cincinnati, Ohio. Arc light.	378,616	Feb. 28	1899	502	42	891
Poland, Lawrence N. P., Cincinnati, Ohio. Dynamo-electric machine.	383,320	May 22	2150	567	43	953
Pole, Benjamin C., Camden, N. J. Motor for street-railways.	381,487	Apr. 24	2327	604 605	43	487
Pole, Benjamin C., Camden, N. J. Steam or gas motor engine.	382,008	May 1	186	48, 49	43	548
Polhemus, Benjamin F. (See Polhemus, James H. and B. F.)						
Polhemus, James H. and B. F., Brooklyn, N. Y. Spokeshave.	393,590	May 29	2557	676	43	1036
Poliwka, Emil, Montreal, Quebec, Canada. Traveling-case.	394,994	Dec. 25	1972	508	45	1479
Polka, Ferdinand A., Oakes, Dak. Ter. Grain-drill.	391,334	Oct. 16	1615	427 428	45	326
Pollack, Flora, Baltimore, Md. Grater.	385,879	July 10	823	218	44	167
Pollard, Henry M., Providence, R. I. Insecticide.	379,326	Mar. 13	674		42	1099
Polley, Clark, New Berlin, Fla. Door-check.	379,327	Mar. 13	675	182	42	1099
Pollock, Alexander, Nyack, N. Y. Switch-lock.	383,654	May 29	2649	701	43	1056
Pomeroy, Amos L., Sand Lake, N. Y. Pie-plate lifter.	387,731	Aug. 14	813	210	44	734
Pomeroy, Henry N., assignor to J. A. Warner, Sparta, Wis. Dust-collector.	381,639	Apr. 24	2012	523	43	427
Pomeroy, Isaac, Newark, N. J. Bottle-top.	378,108	Feb. 21	1145	299	42	738
Pommer, Frank L., et al. (See Heumann, Salomon, assignor.)						
Pomroy, John R., assignor of one-half to R. J. Tonsley, Belvidere, Ill. Pavement.	384,074	June 5	346		43	1187
Ponath, Henry J., St. Louis, Mo. Vegetable-slicer.	377,909	Feb. 14	861	221	42	675
Ponce, Ernesto. (See Hanson, Freeman, assignor.)						
Pond, Alexander W. (See Canfield, Patrick E., assignor.)						
Pond, Chester H., Brooklyn, N. Y. Circuit-closing device for electric clocks.	383,655	May 29	2650	701	43	1056
Pond, Edwin J., Franklin, Mass. Drying apparatus.	376,546	Jan. 17	1163	305 306	42	237
Pond, Lucius W., and F. E. Norton, assignors to H. C. Fish, Worcester, Mass. Metal-planing machine.	380,692	Apr. 10	587	162	43	127
Pond Machine Tool Company. (See Stebbins, Albert C., assignor.)						
Pond, Orlando M., and J. Provan, Independence, Iowa. Wire-joining machine.	378,176	Feb. 21	1249	329	42	757

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Pond, West & Simons (See Ingersoll, Simon, assignor.)						
Pennay, Richard, assignor of two-thirds to C. H. Smith and J. Hewitt, Chicago, Ill. See- tional steam-boiler	376,257	Jan. 10	756	{ 200 201 }	{ 42 44 }	155
Pontallie, Leon J. P., St. Malo, France. Oscillating pump	386,717	July 24	2029	{ 534 539 }	{ 44 45 }	420
Pontallie, Leon J. P., St. Malo, France. Oscillating pump	391,189	Oct. 16	1419	{ 379 380 }	{ 45 45 }	289
Pontius, Frank, Miamisburg, Ohio. Corn-fender	392,824	Nov. 13	961	217	45	786
Pool, John F., Mount Carmel, Ill. Sash-fastener	387,809	Aug. 14	916	237	44	755
Pool, George A., Chicago, Ill. Automatically-closing can	387,959	Aug. 14	1160	314	44	803
Pool, George A., Chicago, Ill. Automatically-closing can	387,960	Aug. 14	1161	314	44	803
Poor, Joseph H. (See Jones, Albert F., assignor.)						
Poor, Joseph H. (See Prescott, George C., assignor.)						
Poore, Townsend, Scranton, Pa. Piston	394,295	Dec. 11	833	{ 221 222 }	{ 45 44 }	1230
Pope, Charles A., Cleveland, Ohio. Vapor-burner-stove attachment	387,253	Aug. 7	82	19	44	587
Pope, Charles F. (See Horton, Everett, assignor.)						
Pope, Everett M. (See Bray and Pope.)						
Pope, Harry M., Hartford, Conn., assignor to Pope Manufacturing Company, Portland, Me. Velocipede	379,907	Mar. 20	1568	413	42	1279
Pope, Harry M., Hartford, Conn., assignor to Pope Manufacturing Company, Portland, Me. Velocipede-seat	381,165	Apr. 17	1321	353	43	273
Pope, Harry M., assignor of one-half to D. S. Seymour, Hartford, Conn. Breech-loading fire-arm	384,277	June 12	655	176	43	1256
Pope, James M., assignor of part to R. W. Garrison, Canton, and W. C. Joyner, Madison County, Miss. Combined planter and fertilizer-distributor	380,929	Apr. 10	946	{ 250 251 }	{ 43 43 }	193
Pope Manufacturing Company. (See Copeland, James S., assignor.)						
Pope Manufacturing Company. (See Day, George H., assignor.)						
Pope Manufacturing Company. (See Haynes, Gideon, Jr., assignor.)						
Pope Manufacturing Company. (See Knous, John, assignor.)						
Pope Manufacturing Company. (See Latta, Emmet G., assignor.)						
Pope Manufacturing Company. (See Pope, Harry M., assignor.)						
Pope, Richard C., St. Louis, Mo. Hoop coupling and tightener	393,362	Nov. 20	1581	415	45	917
Pope, William R. (See Jackson and Pope.)						
Popham, Richard M., et al. (See Powell, John B., assignor.)						
Popp, Michael. (See Coddington and Popp.)						
Pepp, Victor, Paris, France. Rotary motor operated by fluid-pressure	378,146	Feb. 21	1210	315	42	749
Peppen, Jacob, et al. (See Sherman, Henry, assignor.)						
Poppert, George, Milwaukee, Wis. Blind-rod for sliding blinds	380,930	Apr. 10	948	251	43	194
Porteous, George M., and F. S. Miller, Chicago, Ill. Photograph-exhibitor	379,532	Mar. 13	962	260	42	1155
Porteous, James, Fresno, Cal. Plover	380,052	Mar. 27	1787	477	42	1331
Porter, Alexander T. (See Olmsted, Albert P., assignor.)						
Porter, Annie G., et al. (See Porter, Henry K., assignor.)						
Porter, Charles L., Chicago, Ill. Apparatus for restoring the spent properties of char- coal	391,335	Oct. 16	1617	428	45	326
Porter, Charles T., Schenectady, N. Y. Steam-engine	391,916	Oct. 30	2441	660	45	510
Porter, Clinton J., Bowling Green, Ky. Corn splitting and cutting machine	382,108	May 1	345	91	43	577
Porter, Cyrus H., Brockton, Mass. Orange-peeler	379,328	Mar. 13	676	183	42	1099
Porter, Daniel R., Chelsea, Mass. Pipe-wrench	389,899	Sept. 25	1685	444	41	1415
Porter, Daniel R., Chelsea, assignor to W. E. Davidson, Boston, Mass. Pipe-wrench	376,396	Jan. 10	939	246	42	188
Porter Drop Cabinet Company. (See Porter, William H., assignor.) (Reissue.)						
Porter, Eugene A., Bowling Green, Ky. Corn husking and crushing machine	391,646	Oct. 23	2044	553	45	421
Porter, Frank A., Medina, assignor of one-half to W. Tompkins, Knowlesville, N. Y. Piano- stool	379,979	Mar. 27	1675	416	42	1310
Porter, George, London, England. Gas regulator or governor	387,181	July 31	2753	720	44	551
Porter, George A., Syracuse, N. Y. Apparatus for purifying and evaporating saline liquids	390,616	Oct. 2	576	153	45	116
Porter, H. W., et al. (See Harris, Noah, assignor.)						
Porter, Henry K., Boston, Mass. Whiffletree-iron	394,229	Dec. 11	694	185	45	1212
Porter, Henry K., Boston, assignor of one-half to A. G. and T. W. Porter, Chelsea, Mass. Extension-tool for planers	382,268	May 1	572	145	43	619
Porter, James R., National Military Home, Ohio. Envelope and stamp moistener	388,914	Sept. 4	161	44	41	1103
Porter, John A., St. Louis, Mo. Permutation-lock	394,069	Dec. 4	400	107	45	1147
Porter, John C., New York, N. Y. Folding cot	381,985	June 5	216	64	43	1162
Porter, John H., Jackson, and E. A. Grosvenor, Detroit, Mich. Self-locking automatic de- vice for opening and closing valves to air-brake-hose couplings	385,959	July 10	924	{ 244 245 }	{ 44 44 }	189
Porter Manufacturing Company. (See Gray, Edwin L., assignor.)						
Porter, T. W., et al. (See Porter, Henry K., assignor.)						
Porter, Thomas B., Kansas City, Mo. Ironing-table	378,533	Feb. 28	1813	478	42	874
Porter, Thomas J., Fleetwood, county of Lancaster, England. Draft and dust excluder	392,065	Oct. 30	2659	723	45	552
Porter, William H., Washington, D. C., assignor to Porter Drop Cabinet Company, New York, N. Y. Combined desk and type-writer cabinet. (Reissue.)	10,924	Apr. 24	2405	625	43	504
Portmann, Henry G., assignor of one-third to W. W. Portmann, St. Louis, Mo. Combined carriage, cradle, and chair	377,270	Jan. 31	2230	592	42	459
Portmann, Henry G., assignor of one-half to W. W. Portmann, St. Louis, Mo. Center- bearing spring for rockers	390,898	Oct. 9	974	257	45	197
Portmann, William W. (See Portmann, Henry G., assignor.)						
Portner, William, Red Lion, Pa. Cigar-press	376,963	Jan. 24	1797	472	42	366
Portois, Peter, San Francisco, Cal. Wheel-guard and track-clearer for railway-cars	386,346	July 17	1485	394	41	304
Peschinger, Mathias, assignor to Sulzer & Vogt, Louisville, Ky. Ammonia-gas generator	376,905	Jan. 24	1721	452	42	371
Posson, George A., Angwin, Cal. Brake-block	374,215	Feb. 21	1302	345	42	768
Post, Andrew D., Keyport, N. J. Sheet-ring detacher for vessels	378,554	Feb. 28	1814	479	42	874
Post, Charles A., New York, N. Y. Rig and gear for gaff-top-sails	381,278	Apr. 17	1477	397	43	303
Post, Charles N., et al. (See Moffat, George D., assignor.)						
Post, John W., New York, N. Y. Express-car	377,774	Feb. 14	666	{ 167 168 }	{ 42 42 }	637
Post, John W., New York, N. Y., assignor to Model Sewing Machine Company. Sewing- machine	378,804	Feb. 28	2176	579	42	943
Post, Seymour H. (See Haven and Post.)						
Post, Walter A., Newport News, Va. Car-coupling	393,660	Nov. 27	2189	574	45	1046
Post, William S., Boston, and H. D. Sawyer, Revere, assignors to Complete Combustion Company of Portland, Maine, Boston, Mass. Steam boiler and furnace	394,131	Dec. 4	578	155	45	1182
Postal Package Company of Baltimore City. (See Gillingham, Henry R., assignor.)						
Posten, Walter B. (See Bell, Jacob, assignor.)						
Postlethwaite, Miles, Whitehaven, county of Cumberland, England. Ventilated hat	385,282	June 26	2172	{ 554 555 }	{ 43 43 }	1566

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. et	Vol.	Page.
Potter, Charles, Stockport, county of Chester, England. Ventilator for hats .....	386,930	July 31	2382	626	41	494
Potter, Edward R., Grinnell, Iowa. Wire gate .....	380,591	Apr. 3	429	122	43	88
Potter, Edward T., Newport, R. I. Magic-lantern slide .....	390,396	Oct. 2	282	74	45	60
Potter, Elmer L., and G. B. Upham, Columbus, Ohio. Envelope .....	378,849	Feb. 28	2256	600	42	958
Potter, James C., Lowell, Mass. Evening mechanism for cotton-openers .....	377,329	Jan. 31	2330	676	42	475
Potter, James C., Pawtucket, R. I. Evening mechanism for cotton-openers, &c .....	386,756	July 24	2084	548	41	430
Potter, James C., Lowell, assignor to Atherton Machine Company, Tewksbury, Mass. Spinning-machine .....	302,524	Nov. 6	507	127	45	691
Potter, James R., Providence, R. I. Automatic car-switch .....	381,949	May 1	71	18	43	538
Potter, John A. (See Forsyth and Potter.)						
Potter, Jonas, assignor to himself and J. J. Strayer, Morrellville, Pa. Bolt .....	376,258	Jan. 10	758	201	42	155
Potter, Mark, Syracuse, N. Y. Continuous-heating branding implement .....	377,575	Feb. 7	331	85	42	559
Potter, Mark, Syracuse, N. Y. Oil-cup .....	391,336	Oct. 16	1618	428	45	326
Potter, Roger. (See McDougall and Potter.)						
Potter, Roger. (See Murphy, Thomas J., assignor.)						
Potter, Thomas O., Boston, Mass. Buckle .....	386,158	July 17	1214	324	44	253
Potter, William, Stockton, Kans. Grapple .....	380,405	Apr. 3	145	41	43	30
Potter, William E., et al. (See Hallowell, Albert, assignor.)						
Potter, Wilson L., assignor to Jewell Belting Company, Hartford, Conn. Belt-fastener .....	381,640	Apr. 24	2012	528	43	427
Pottle, George F., Medford, Mass. Alloy of copper, nickel, and lead .....	390,251	Oct. 2	80		45	19
Potts, Edward C. (See Perce, Alfred E., assignor.) (Reissue.)						
Potts, George, Indianapolis, Ind. Clay-disintegrator .....	384,278	June 12	656	176	43	1256
Potts, James W., assignor of one-half to J. P. Strong, St. Joseph, Mo. Device for automatically operating hatchways for elevators .....	375,894	Jan. 3	221	60, 61	42	47
Potts, Joseph C., assignor of one-half to J. H. Coates, Berwyn, Pa. Friction-clutch .....	387,816	Aug. 14	917	238	41	755
Potts & Weber. (See Bender, Jacob F., assignor.)						
Potts, William M., West Nantmeal, Pa. Barrow .....	388,715	Aug. 28	2316	623	44	1038
Poucher, Henry, Brooklyn, Mich. Cylinder for corn-shellers .....	379,603	Mar. 20	1095	291	42	1187
Poulson, Andrew, St. Louis, Mo. Thill-comping .....	387,443	Aug. 7	368	95	44	645
Poulson, Andrew, St. Louis, Mo. Connecting-rod .....	387,441	Aug. 7	369	95	44	645
Poulson, Britton, Fort Wayne, Ind. Cabinet folding bedstead .....	391,424	Oct. 23	1744	466	45	357
Poulson, Britton, assignor to W. D. Schiefer, Fort Wayne, Ind., and J. C. Hunt, Concord, Mass. Device for detaching buttons .....	379,604	Mar. 20	1095	291	42	1187
Poulter, John H. (See Mace, Harvey A., assignor.)						
Poulton, John F. (See Hilleary and Poulton.)						
Poupard, Frederick A. (See Jutson and Poupard.)						
Poupart, Fernand B., New Orleans, La. Pen-holder .....	389,527	Sept. 11	1092	290	44	1287
Powell, Andrew J., and M. G. De Crow, Newark, Ohio. Gate .....	391,385	Oct. 16	1691	447	45	339
Powell, Emma A., et al. (See Lane, George W., assignor.)						
Powell, Fredrick N. (See Graetzel and Powell.)						
Powell, Henry G., Finsbury, London, England. Rope-traveler .....	380,267	Mar. 27	2077	556	42	1390
Powell, James, Cincinnati, Ohio. Lubricator .....	379,243	Mar. 13	553	154	42	1076
Powell, James, Cincinnati, Ohio. Plug-cock .....	379,244	Mar. 13	554	154	42	1077
Powell, John B., assignor of one-fourth to D. D. Dieterich and R. M. Popham, Philadelphia, Pa. Spring-motor .....	382,663	May 8	1190	309	43	748
Powell, Samuel, Ravenswood, assignor to Keen & De Lang, Chicago, Ill. Paper-holding spindle .....	380,592	Apr. 3	431	122	43	88
Powell, Samuel, assignor to Cameron, Amberg & Co., Chicago, Ill. Book mark and clasp .....	388,149	Aug. 21	1490	396	41	872
Powell, Thomas J., et al. (See Latham, Ephraim, assignor.)						
Powell, Thomas W., Flushing, N. Y. Potato-digger .....	389,244	Sept. 11	689	175	41	1211
Powell, William L., Kansas City, Mo. Door-hanger .....	382,770	May 15	1337	352	43	755
Power, George T. (See Messinger, William T., assignor.)						
Powers, Charles M., Dubois, Pa. Tool-handle .....	377,688	Feb. 7	510	131	42	591
Powers, David J., Chicago, Ill. Crib or child's bed .....	394,010	Dec. 4	401	108	45	1148
Powers, David J., Chicago, Ill., assignor to Union Wire Mattress Company, of Illinois. Spring bed-bottom .....	386,846	July 31	2259	595	44	470
Powers, Frank H., assignor to C. W. Reynolds, and D. H. Kelly, Petersburg, N. Y. Making shirts .....	392,635	Nov. 13	679	169	45	731
Powers, Henderson M., Lancaster, Pa. Thill comping .....	387,254	Aug. 7	83	20	44	588
Powers, Henderson M., Lancaster, Pa. Shaft-supporter .....	387,255	Aug. 7	84	20	44	588
Powers, James J. (See Van Buren and Powers.)						
Powers, Joseph A., Lansingburg, N. Y. Electric cut-outs .....	387,732	Aug. 14	814	210	44	734
Powers, Merl D. (See Matson, German J., assignor.)						
Powers & Son, William T. (See Densmore, Edwin, assignor.)						
Povton, Josiah, assignor, by mesne assignments, to C. R. Vincent, New York, N. Y. Weather-strip .....	381,166	Apr. 17	1322	353	43	273
Prahar, Louis B., Brooklyn, N. Y. Safety-inkstand .....	376,259	Jan. 10	759	201	42	156
Prahar, Louis B., Brooklyn, N. Y. Safety-inkstand .....	376,964	Jan. 24	1798	473	42	366
Prahar & Shepard. (See Deck, Frederick, assignor.)						
Prahn, Adolph F., Indianapolis, Ind. Signal-lamp .....	386,495	July 24	1714	453	41	361
Prahn, Adolph F., Indianapolis, Ind. Locomotive head-light .....	393,173	Nov. 20	1448	378	45	850
Prall Union Heating Company. (See Prall, William E., assignor.)						
Prall, William E., Washington, D. C., assignor to Prall Union Heating Company, New York, N. Y. Supplying heat and power .....	376,830	Jan. 24	1615	423	42	331
Prall, William E., Washington, D. C., assignor, by mesne assignments, to National Heating Company, New York, N. Y. Means for supplying heat and power .....	379,283	Mar. 13	607	167	42	1087
Prall, William E., Washington, D. C., assignor, by mesne assignments, to National Heating Company, New York, N. Y. Means for supplying heat and steam or water power to cities, towns, &c. (Reissue.) .....	10,923	Apr. 17	1842	487	43	376
Prall, William E., Washington, D. C., assignor, by mesne assignments, to National Heating Company, New York, N. Y. Cooking stove and range .....	382,241	May 1	531	136	43	611
Prall, William E., Washington, D. C., assignor, by mesne assignments, to National Heating Company, New York, N. Y. Radiator .....	386,556	July 24	1814	479	44	378
Prall, William E., Washington, D. C., assignor to National Heating Company, New York, N. Y. Means for supplying heat and power to large districts of buildings .....	382,383	May 8	764	194	43	664
Prall, William E., Washington, D. C., assignor to National Heating Company, New York, N. Y. Supplying heat and power to large districts of buildings .....	382,384	May 8	766	195	43	665
Prall, William E., Washington, D. C., assignor to National Heating Company, New York, N. Y. Supplying steam and hot water for power and heating purposes .....	386,347	July 17	1486	395	44	304
Prall, William E., Washington, D. C., assignor to National Heating Company, New York, N. Y. Means for supplying steam and hot water for power and heating purposes .....	386,348	July 17	1488	395	44	304
Prall, William E., Washington, D. C., assignor to National Tramway Motor Company, New York, N. Y. Propelling and heating street-cars .....	388,444	Aug. 28	1928	515	44	963
Prall, William E., Jr., assignor to W. E. Prall, Washington, D. C. Steam-motor for street-cars .....	393,263	Nov. 20	1582	415	45	918



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Pramhus, Theodore A., assignor of one-half to A. G. Nordin, Dassel, Minn. Blinder-loop for bridles	393,658	Nov. 27	2187	573	45	1045
Prankard, Charles J., Troy, N. Y. File-handle	380,660	Apr. 3	528	145	43	106
Pranke, August, Detroit, Mich. Bow-drill	380,517	Apr. 3	323	92	43	66
Pratt, A. Felix, Montpelier, Vt. Hair-tonic	376,808	Jan. 21	1587		42	326
Pratt, Arthur L., et al. (See Barker, Jeduthoun P., assignor.)						
Pratt, Charles A., Boston, Mass. Lattice-cover for barrels	393,174	Nov. 20	1449	378	45	891
Pratt, Charles H., Butte City, assignor of one-half to C. M. Buck, Silver Bow County, Mont. Tor. Fastening device	378,460	Feb. 28	1682	441	42	846
Pratt, Clara B. (See Pratt, Samuel B. and C. B.)						
Pratt, Daniel W., West Burlington, Pa. Slat-fastener for straw-carriers	391,555	Oct. 23	1925	518	45	396
Pratt Electro Therapeutic Supply Company. (See Pratt, Harry P., assignor.)						
Pratt, Harry P., assignor to Pratt Electro Therapeutic Supply Company, Chicago, Ill. Electric belt	388,581	Aug. 28	2119	569	44	1000
Pratt, Harry P., assignor to Pratt Electro Therapeutic Supply Company, Chicago, Ill. Electric plaster	391,520	Oct. 23	2145	580	45	441
Pratt, Henry C., Canandaigua, N. Y. Harrow	386,847	July 31	2260	595	44	470
Pratt, Herbert L. (See Filton and Scott, assignors.)						
Pratt, Jacob F., and W. Chase, Coldwater, Mich. Child's sled	380,693	Apr. 10	589	162	43	127
Pratt, John, New York, N. Y. Type-writing machine	394,995	Dec. 25	1973	508 509 510	45	1480
Pratt, John, Harrison, and J. A. Parker, Buffalo, Pa. Churn	392,165	Oct. 30	2826	766	45	584
Pratt, John H., Jr. (See Meyers, Fredrick, assignor.)						
Pratt & Letchworth. (See Hewitt, Leslie, assignor.)						
Pratt, Lewis M., Belleville, Kans. Weather-strip	377,838	Feb. 14	763	195	42	655
Pratt, Lewis M., and J. M. Walker, Belleville, Kans. Threshold or door-sill	386,084	July 10	1094	294	44	223
Pratt Manufacturing Company. (See English, Aualdo M., assignor.)						
Pratt, Nat. W., Brooklyn, N. Y. Apportioning furnace-draft for batteries of steam-boilers	382,489	May 8	926	235	43	695
Pratt, Nat. W., Brooklyn, N. Y. Apportioning furnace-draft for batteries of steam-boilers	382,490	May 8	928	235	43	695
Pratt, Nat. W., Brooklyn, assignor to Pneumatic Dynamite Gun Company, New York, N. Y. Pneumatic ordnance	381,950	May 1	72	18	43	528
Pratt, Nat. W., Brooklyn, assignor to Pneumatic Dynamite Gun Company, New York, N. Y. Pneumatic cartridge	387,256	Aug. 7	85	20	44	588
Pratt, Nat. W., Brooklyn, assignor to Pneumatic Dynamite Gun Company, New York, N. Y. Multiple primer for shells	388,787	Aug. 28	2419	652	44	1057
Pratt, Oscar C., San Rafael, Cal. Seal-lock	384,542	June 12	1051	274	43	1328
Pratt, Robert J., Greenbush Heights, N. Y. Drill-chuck	384,928	June 19	1620	421	43	1445
Pratt, Robert L., Tigerville, La. Adjustable cuff-retainer	376,547	Jan. 17	1164	306	42	238
Pratt, Ronello F., Revere, and C. D. Wainwright, Medford, Mass., assignors to Wainwright Manufacturing Company, Portland, Me. Expansion joint	388,915	Sept. 4	165	44	44	1104
Pratt, Ronello F., Revere, and C. D. Wainwright, Medford, Mass., assignors to Wainwright Manufacturing Company, Portland, Me. Feed-water heater	388,916	Sept. 4	166	44	44	1104
Pratt, Ronello F., Revere, and C. D. Wainwright, Medford, Mass., assignors to Wainwright Manufacturing Company, Portland, Me. Coil feed-water heater	389,900	Sept. 25	1686	445	44	1416
Pratt, Ronello F., Revere, and C. D. Wainwright, Medford, Mass., assignors to Wainwright Manufacturing Company, Portland, Me. Machine for corrugating wrought-metal tubes	390,899	Oct. 9	976	257	45	197
Pratt, Ronello F., Revere, and C. D. Wainwright, Medford, Mass., assignors to Wainwright Manufacturing Company, Portland, Me. Feed-water heater	393,483	Nov. 27	1921	503	45	990
Pratt, Rufus N., Hartford, Conn., and H. W. Johns, New York, N. Y. Boot or shoe	381,579	Apr. 24	1924	507	43	409
Pratt, Samuel B., Boston, Mass. Tray for collecting coin	384,711	June 19	1308	342	43	1386
Pratt, Samuel B. and C. B., Boston, Mass. Thread-holder for spools	394,996	Dec. 25	1978	510	45	1480
Pratt & Whitney Company. (See Richards, Francis H., assignor.)						
Pratt & Whitney Company. (See Whitney, Amos, assignor.)						
Pratt, Wilson. (See Armitage, Herbert G., assignor.)						
Preater, James H., Brooklyn, N. Y. Elevator-gate	386,605	July 24	1873	495	44	391
Predmore, William H., Walworth, Nebr. Calf-weaner	386,266	July 17	1366	365	44	284
Prefontaine, George G., Whitehall, N. Y. Sectional boiler	392,881	Nov. 13	1037	267	45	803
Prefontaine, George G., assignor of one-half to C. C. Wetmore, Whitehall, N. Y. Oil-cup	390,876	Oct. 9	1115	294	45	223
Prefontaine, Ephraim, Clintonville, Ill. Track device for handling cars	388,673	Aug. 21	1337	361	44	846
Prendergast, Daniel, New York, assignor to H. Wellington, Brooklyn, N. Y. Spout for sheet-metal vessels	377,048	Jan. 31	1915	503	42	396
Prendergast, John B., and H. Tallaksen Webster, Dak. Ter. Straw-burning cooking-stove	394,997	Dec. 25	1978	510	45	1480
Pregel, Eugen, deceased, Oakland, Cal.; H. G. Pregel executrix. Hay-press	382,664	May 8	1192	310	43	748
Pregel, Helene G., executrix. (See Pregel, Eugen.)						
Prentice, Charles, Putnam, Conn. Button	394,132	Dec. 4	580	155	45	1182
Prentice, George W., Providence, R. I. Button-fastener	379,028	Mar. 6	248	70	42	1012
Prentice, George W., Providence, R. I. Button-machine	383,490	May 29	2421	643	43	1009
Prentice, Henry L. (See Hard, Josiah, assignor.)						
Prentice, John, New York, N. Y. Cock for gas-fixtures	385,134	June 26	1946	497	43	1520
Prentiss, Charles, et al. (See Elmendorf, Albert, assignor.)						
Prescott, Charles S., et al. (See Prescott, Oliver P., assignor.)						
Prescott, De Witt C., Marinette, Wis. Saw-mill carriage	376,678	Jan. 17	1370	360	42	276
Prescott, De Witt C., Marinette, Wis. Offset mechanism for saw-mill carriages	378,717	Feb. 28	2045	540	42	918
Prescott, De Witt C., Marinette, Wis. Saw-mill carriage	385,523	July 3	236	73	44	58
Prescott, Edwin, Arlington, and W. E. Locke, West Somerville, Mass.; said Locke assignor to said Prescott. Butt-hinge	378,718	Feb. 28	2047	540	42	919
Prescott, George C., Peabody, assignor of one-half to J. H. Poor, Salem, Mass. Safe-lock	393,449	Nov. 27	1855	488	45	979
Prescott, James E., assignor of one-half to J. W. Reynolds, Waynesborough, Ga. Axle for vehicles	383,066	May 15	1717	459	43	872
Prescott, John W., et al. (See Prescott, Oliver P., assignor.)						
Prescott, Oliver P., assignor to himself, C. S. and J. W. Prescott, Boston, Mass. Hose-nozzle supporter	388,788	Aug. 28	2420	653	44	1057
Pressley, Leonidas C., assignor to Automatic Connection Compressed Air Car Motor Company, San Francisco, Cal. Automatic air-supply for propelling cars	383,826	May 29	2221	772	43	1109
Preston, Charles A., Cambridgeport, Mass. Lacing-cord fastener	386,496	July 24	1715	454	44	361
Preston, Charles A., Cambridgeport, assignor to G. Frost, G. H. Phelps, and G. A. Frost, Newton, Mass. Garment-supporter	378,147	Feb. 21	1212	316	42	750
Preston, Charles A., Cambridgeport, assignor to G. Frost, G. H. Phelps, and G. A. Frost, Newton, Mass. Garment-supporter	378,148	Feb. 21	1213	316	42	750
Preston, Charles A., Cambridgeport, assignor to G. Frost, G. H. Phelps, and G. A. Frost, Newton, Mass. Garment-supporter	383,827	May 29	2226	773	43	1109
Preston, Charles H., and H. W. Whalen, Detroit, Mich. assignors to Diamond Match Company, New Haven, Conn. Machine for sanding match-boxes	388,582	Aug. 28	2122	569	44	1001

*Alphabetical list of patentees—Continued.*

Name, residence, and invention..	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Preston, E. Bruce. (See Bruegger, Abraham, Jr., assignor.)						
Preston, Edward F. (See Preston, William W. and E. F.)						
Preston, Everett B. (See Adcock, Edmund, assignor.)						
Preston, Everett B. (See Hicks, Charles, assignor.)						
Preston, Everett B., Chicago, Ill. Turn-table extension-ladder truck .....	383,828	May 29	2927	<sup>773</sup> <sub>774</sub>	43	1109
Preston, Frederick L., Darien, Wis. Breaker and crusher .....	383,986	June 5	216	64, 65	43	1162
Preston, Henry M., New Haven, Conn., assignor to E. Burdall, Port Chester, N. Y. Drill-chuck .....	383,248	May 22	2042	536	43	934
Preston, Samuel, Ramsgate, county of Kent, England. Bread .....	393,923	Dec. 4	279	.....	45	1125
Preston, William A., Fort Branch, Ind. Refrigerator .....	393,659	Nov. 27	2187	573	45	1046
Preston, William W. and E. F., Bismarck, Mich. Ice-creeper .....	380,816	Apr. 10	769	210	43	161
Prestrick, Thomas, Providence, R. I. Cuff-fastener .....	394,133	Dec. 4	581	156	45	1182
Prevost, Thomas L., Racine, Wis. Holder for sand-paper .....	378,522	Feb. 28	1765	467	42	865
Prewitt, David H., Perryville, Ky. Bundle-carrier for harvesters .....	383,009	May 15	1685	438	43	854
Price, Abel F., Philadelphia, Pa. Bicycle .....	384,543	June 12	1052	275	43	1328
Price, Abner, <i>et al.</i> (See Moore, Daily S., assignor.)						
Price, Alexander, <i>et al.</i> (See Moore, Daily S., assignor.)						
Price, Cyrus E. (See Munger, Dexter S., assignor.)						
Price, Cyrus E. (See Munger and Price.)						
Price, George M., Rutland, Ohio. Jug .....	379,126	Mar. 6	384	109	42	1038
Price, George P., Carlisle, Ohio. Gate .....	379,660	Mar. 20	1171	311	42	1203
Price, Henry C., assignor of one-third to J. H. Hildreth, New York, N. Y. Clothes-drier .....	382,269	May 1	573	145	43	619
Price, Jacob, San Leandro, Cal. Baling-press .....	394,662	Dec. 18	1409	<sup>367</sup> <sub>368</sub>	45	1361
Price, James M., Philadelphia, Pa. Rail-joint .....	392,569	Nov. 6	572	144	45	705
Price, John A., Scranton, Pa. Heating-stove .....	381,026	Apr. 10	1091	<sup>290</sup> <sub>291</sub>	43	220
Price, John B., Wollaston Heights, Mass., assignor to Electrical Accumulator Company, of New York. Mold for casting metallic forms .....	386,219	July 17	1318	<sup>345</sup> <sub>349</sub>	44	272
Price, Joseph C. (See Chable, August F., assignor.)						
Price, Joseph C., Baltimore, Md. Piano-action .....	395,078	Dec. 25	2091	542	45	1504
Price, Orrin J., Detroit, Mich. Soda-water-dispensing apparatus .....	381,027	Dec. 10	1095	291	43	221
Price, William H., Hollidaysburg, Pa. Road-cart .....	394,790	Dec. 18	1628	426	45	1407
Price, William H., Jr., assignor to Chandler & Price, Cleveland, Ohio. Ink-fountain for platen printing-presses .....	384,216	June 5	554	152	43	1228
Price, William L., Philadelphia, Pa. Rolling apparatus .....	384,591	June 12	1122	296	43	1341
Prichard, Frank E., Cedar Falls, Iowa. Electrical governor .....	380,817	Apr. 10	770	211	43	161
Prichard, George A., and E. Mignault, New York, N. Y. Ventilator .....	391,425	Oct. 23	1746	467	45	358
Prichard, Henry, assignor to C. F. Imbrie, New York, N. Y. Wedge-ferrule for fishing reels and rods .....	376,260	Jan. 10	760	202	42	156
Pridmore, Henry E. (See McCormick and Pridmore.)						
Pridmore, Henry E., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Grain-binder .....	382,898	May 15	1511	396	43	821
Pridmore, Henry E., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Wheel .....	382,899	May 15	1515	396	43	822
Pridmore, Henry E., Chicago, Ill., assignor to McCormick Harvesting Machine Company. Grain-binder .....	390,987	Oct. 9	1117	<sup>295</sup> <sub>296</sub>	45	224
Priebs, Bernhard. (See Friedlaender and Priebs.)						
Priesmeyer, August. (See McGinness and Tweedie, assignors.)						
Priest, Joseph K., Nashua, N. H. Hair-clipper .....	393,450	Nov. 27	1857	489	45	979
Priestley, John H., assignor of one-half to J. L. Chapin, Meriden, Iowa. Potato-planter .....	386,349	July 17	1490	395	44	305
Priestman, Samuel. (See Priestman, William D. and S.)						
Priestman, William D. and S., Holderness Foundry, Hull, county of York, England. Motor-engine operated by the combustion of liquid hydrocarbon .....	386,029	July 10	1019	<sup>270</sup> <sub>271</sub>	44	208
Prince, James H., Boston, Mass. Coat, vest, &c. .....	391,556	Oct. 23	1926	518	45	396
Prindle, Franklin C. and R. S., East Orange, N. J. Valve-governor .....	389,484	Sept. 11	1036	276	44	1276
Prindle, Franklin C. and R. S., East Orange, N. J. Hydrostatic sight-feed lubricator .....	389,523	Sept. 11	1093	290	44	1287
Prindle, George S., <i>et al.</i> (See Whittemore, James M., assignor.)						
Prindle, John A., Cleveland, Ohio. Metallic-wire packing .....	392,931	Nov. 13	1105	286	45	815
Prindle, John A., Cleveland, Ohio. Radiator .....	392,932	Nov. 13	1106	286	45	815
Prindle, Roscoe S. (See Prindle, Franklin C. and R. S.)						
Pringle, Eugene, Gloversville, N. Y. Glove-fastening .....	380,694	Apr. 10	590	162	43	128
Pringle, Eugene, Gloversville, N. Y. Separable button .....	391,076	Oct. 16	1265	336	45	259
Pringle, James M., Bathurst, New South Wales. Geometrical drawing-board .....	390,397	Oct. 2	283	74, 75	45	60
Pringle, William J., Cleveland, Ohio. Brick or tile for building purposes .....	383,987	June 5	218	65	43	1163
Printing Telegraph Company of Illinois. (See Odell, John B., assignor.)						
Printz, James A. (See Banyer and Printz.)						
Prinz, Faustin, Milwaukee, Wis. Smut-machine .....	380,348	Apr. 3	63	21, 22	43	15
Prinz, Faustin, Milwaukee, Wis. Elevating-bolt .....	381,448	Apr. 24	2330	605	43	487
Prip, Axel. (See Ostermann and Prip.)						
Pritchard, Frederick, Meriden, Conn. Octave-coupler .....	381,418	Apr. 17	1680	450	43	345
Pritchard, Frederick, Meriden, Conn. Reed-organ .....	393,312	Nov. 20	1654	437	45	932
Pritchard, Nathaniel J., and J. S. Templeton, Milnes, assignor of one-half to J. H. Sands and D. W. Flickwir, Roanoke, Va. Device for applying pressure to railway-brakes .....	377,775	Feb. 14	670	169	42	638
Pritchett, Basil B., Chrisman, Ill. Cotton-seed planter .....	378,109	Feb. 21	1147	299	42	738
Pritchett, George, Binghamton, N. Y. Fire-escape .....	376,160	Jan. 10	623	167	42	130
Prochowicz, Albert, Winona, Minn. Ointment .....	381,483	Apr. 17	1783	.....	43	364
Proctor, David G., Washington, D. C. Air purifying, cooling, and ventilating device for railway-cars or buildings .....	393,924	Dec. 4	280	76	45	1125
Proctor, David R., assignor to Globe Sectional Head Company, Chicago, Ill. Barrel-head .....	392,570	Nov. 6	573	144	45	705
Proctor, H. P., <i>et al.</i> (See Brown, Theodore H., assignor.)						
Proctor, Harlan P. (See Hawey, James H., assignor.)						
Proctor, Josiah K. (See Tate, Hugh J., assignor.)						
Promis, Eugene, Philadelphia, Pa. Combined blotter and pen-wiper .....	378,719	Feb. 28	2048	541	42	919
Promis, Eugene, Philadelphia, Pa. Hat-label holder .....	383,854	Dec. 4	178	48	45	1105
Prosser, Treat T., Lakeside, Ill. Fire-kindler .....	386,895	July 31	2328	612	44	483
Proudfit, David L. (See Pierson, John G., assignor.)						
Prout, Joseph A., New York, N. Y. Cuck .....	382,900	May 15	1514	396	43	822
Prouty, Chester, Galetton, Pa. Supporter for boots or shoes .....	379,980	Mar. 27	1676	446	42	1310
Prouty, Enoch, and O. S. Hynes, Chicago, Ill. Type-writing machine .....	389,854	Sept. 18	1609	<sup>424</sup> <sub>425</sub>	44	1393
Prouty, George W., Boston, Mass. Inking apparatus for printing-presses .....	378,110	Feb. 21	1148	299	42	738
Prouty, George W., Boston, Mass. Ink-fountain for printing-presses .....	386,350	July 17	1491	396	44	305

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Prouty, George W., Boston, Mass. Device for securing shafts in bearings .....	387,445	Aug. 7	370	95	44	646
Prouty, George W., Boston, Mass. Printing-press .....	390,139	Sept. 25	2031	541	44	1486
Prouty, Jonas R. (See Avery, William, assignor.) .....						
Prouty, Jonas R., Spencer, Mass. Nail-strip .....	383,907	June 5	93	28	43	1138
Prouty, Jonas R., Spencer, Mass. Nail-strip .....	383,908	June 5	91	28	43	1138
Prouty, Jonas R., Spencer, Mass. Pegging-machine .....	383,909	June 5	95	28	43	1139
Prouty, Jonas R., Spencer, Mass. Machine for loading nail-strips .....	383,910	June 5	96	28, 29	43	1139
Provan, John. (See Pond and Provan.) .....						
Providence Cylinder Company. (See Coas, Edward K., assignor.) .....						
Providence Steam and Gas Pipe Company. (See Tillotson, Marshall, assignor.) .....						
Prowse, George R., Montreal, Quebec, Canada. Stove .....	378,149	Feb. 21	1214	316	42	750
Pruden, Frank I. (See Wood, George E., assignor.) .....						
Pruden, Samuel M., Newark, N. J. Electrical registering device .....	381,279	Apr. 17	1478	397	43	303
Prudin, Hiram P., Grand Haven, assignor of one-half to S. H. Boyce, N. R. Howlet, and S. L. Monro, Ottawa County, Mich. Nut-lock .....	386,351	July 17	1492	396	44	305
Prnitt, Eugene R., assignor of one-half to C. W. Johnson, Baltimore, Md. Safety attachment for gas-burners .....	381,484	Apr. 17	1784	475	43	364
Prun, August, Stolberg, near Aachen, Prussia, Germany. Buckle .....	378,555	Feb. 28	1815	479	42	874
Publow, James A. (See Cook, Thomas G., assignor.) .....						
Puchta, Emil, and R. Hoffmann, Washington, Mo. Tile-machine .....	383,591	May 29	2559	677	43	1036
Puffenberger, Henry B., Tiffin, Ohio. Corn-shock binder and compressor .....	384,259	June 12	658	176	43	1256
Puffer, Freeman W. (See Greene, Webster M., assignor.) .....						
Puffer, Stephen, Oxford, N. Y. Vehicle-wheel .....	381,509	Apr. 17	1826	483	43	372
Pugh, Cortez V., assignor to W. A. Hutchinson, Bowling Green, Mo. Wire-stretching machine .....	384,929	June 19	1622	421	43	1446
Pugh, Elijah N., Willis, Kans. Grain separator and grader .....	385,427	July 3	139	36, 37	44	29
Pugh, Jesse B., Indianapolis, Ind. Gate-hinge .....	377,910	Feb. 14	862	222	42	675
Pugh, Morton E., St. Joseph, Mo. Cable-lever hook .....	379,731	Mar. 20	1264	337	42	1222
Pugh, Morton E., St. Joseph, Mo. Railway grading and excavating machine .....	379,732	Mar. 20	1266	338	42	1222
Pugh, O. C. (See Conn, John H., assignor.) .....						
Pugh, Oliver C. (See Conn and Pugh.) .....						
Pugh, Simeon A., Dadeville, Ala. Horse-detacher .....	376,107	Jan. 10	535	142	42	114
Pullan, Abraham. (See Spence and Pullan.) .....						
Pulliam, Luther, assignor to Whitworth & Sons, Ironton, O. S. Pulliam, St. Louis, and J. E. Swank, Charleston, Mo. Wagon-bolster spring .....	394,935	Dec. 18	1877	485	45	1452
Pulliam, Oswald S., et al. (See Pulliam, Luther, assignor.) .....						
Pullman, George M., Chicago, Ill. Railway-car .....	383,067	May 15	1778	460	43	872
Pullman, Herbert S., Rockville, assignor, by mesne assignments, of one-half to G. H. Wilson, Meriden, Conn. Shoe-clasp .....	391,557	Oct. 23	1926	519	45	397
Pullman's Palace Car Company. (See Hoffman, John W., assignor.) .....						
Pullman's Palace Car Company. (See Sessions, Henry H., assignor.) .....						
Pullum, Ernest G., assignor to Virgoe, Middleton & Co., London, county of Middlesex, England. Suspender-end .....	393,581	Nov. 27	2061	539	45	1022
Pulsifer, Joseph, Williams, Cal. Artist's mechanical sketching apparatus .....	386,931	July 31	2384	627	44	494
Pulsion Telephone Company. (See Mellett, Lemuel, assignor.) .....						
Pulverized Coal and Furnace Company. (See Ruddick, Hamilton, assignor.) .....						
Pumpelly, James K. (See Askew and Pumpelly.) .....						
Purcell, Frank A., and J. K. Case, Vincennes, Ind. *Spool-holder .....	377,436	Feb. 7	137	30	42	520
Purdy, Elbridge H., Cincinnati, Ohio. Car-brake .....	381,084	Apr. 10	1201	321	43	241
Purdy, Hiram, Burlington, Iowa. Reflector for electric lamps .....	381,167	Apr. 17	1323	353	43	274
Purdy, William J., New York, N. Y. Lock-clamp for pipes .....	389,102	Sept. 4	441	116	44	1156
Purdy, Zachariah V., Birmingham, Ala. Horseshoe-machine .....	378,111	Feb. 21	1149	300	42	739
Purefoy, Addison F., New Haven, Conn. Sifter .....	376,449	Jan. 17	1031	270	42	212
Purefoy, Addison F., New Haven, Conn. Box-sieve .....	376,450	Jan. 17	1031	270	42	213
Purinton, Judson K., Dallas Centre, Iowa. Boiler .....	379,245	Mar. 13	556	155	42	1077
Pursel, William W., Berwick, Pa. Door-lock .....	390,704	Oct. 9	702	187	45	148
Purviance, Alfred J., and C. Hills, Keokuk, Iowa. Door-check .....	392,688	Nov. 13	751	191	45	744
Pusey, Joshua, Philadelphia, Pa. Toboggan .....	386,413	July 17	1596	419	44	329
Pusey, Joshua, Philadelphia, Pa. Toboggan .....	386,414	July 17	1598	420	44	329
Pusey, Joshua, Philadelphia, Pa. Artificial toboggan or coasting hill .....	387,733	Aug. 14	815	211	44	735
Pusey, Joshua, Philadelphia, Pa. Crumb or dust scoop .....	387,734	Aug. 14	817	211	44	735
Putman, John, assignor to M. A. Putman, Beardstown, Ill. Draft-equalizer .....	380,635	Apr. 3	488	137	43	99
Putnam, Martha A. (See Putman, John, assignor.) .....						
Putnam, Henry W. (See Morhous, Frederick P., assignor.) .....						
Putnam, J. Pickering, Boston, Mass. Conpling for water-closets .....	377,776	Feb. 14	672	169	42	638
Putney, Barnard, Ludington, Mich. Well-tube .....	389,164	Sept. 4	552	139	44	1174
Putney, William E. (See Cherrier, Francis E., assignor.) .....						
Putt, Joseph A. (See Wallace, Albert D., assignor.) .....						
Pyncheon, Edwin, Chicago, Ill. Car-axle lubricator .....	377,271	Jan. 31	2240	592	42	459
Quaglio, Julius. (See Westphal, Christian, assignor.) .....						
Quarante, Pierre L., and E. D'Escalonne, Paris, France. Composition for preserving wood, &c. .....	380,593	Apr. 3	432	.....	43	88
Quarry, William J., Cincinnati, Ohio. Screen .....	393,175	Nov. 20	1450	378	45	891
Quass, Max, Philadelphia, Pa. Boring-tool .....	376,906	Jan. 21	1722	452	42	352
Quayle, William, Denver, Colo. Adjustable angle-measure and protractor .....	390,705	Oct. 9	704	187	45	148
Queen Ann Screen Company. (See Baldwin, Judson A., assignor.) .....						
Quentell, William P., Kansas City, Mo. Can-opener .....	380,406	Apr. 3	146	41	43	30
Querol y Delgado, Emilio, assignor to himself, J. Wright, E. Durlach, and M. Bookman, Brooklyn, N. Y. Sewing-machine .....	377,515	Feb. 7	257	64	42	543
Querol y Delgado, Emilio, assignor to himself, J. Wright, E. Durlach, and M. Bookman, Brooklyn, N. Y. Take-up for sewing-machines .....	377,516	Feb. 7	259	65	42	544
Querol y Delgado, Emilio, assignor to himself, J. Wright, E. Durlach, and M. Bookman, Brooklyn, N. Y. Tension for sewing-machines .....	377,517	Feb. 7	260	65	42	544
Quigg, George B., Thornton, assignor to himself and J. N. Young, Chicago, Ill. Car-brake .....	383,904	June 5	81	24	43	1137
Quigley, Robert J. (See Currie, Edward, Jr., assignor.) .....						
Quigley, Robert J., Toronto, Ontario, Canada. Watch-case .....	382,190	May 1	455	118	43	597
Quigley, Robert J., Toronto, Ontario, Canada. Watch-case .....	384,640	June 19	1196	316	43	1364
Quilliam, Albert L., Chateaugay, N. Y. Mower .....	384,712	June 19	1309	342	43	1386
Quincy, Josiah, et al. (See Bridger, Henry C., assignor.) .....						
Quincy Metal Wheel Company. (See Little, James R., assignor.) .....						
Quincy Metal Wheel Company. (See McDowell, Malcolm, assignor.) .....						
Quine, William W. (See Schleber, Henry H., assignor.) .....						
Quinn, James, Jr., assignor to W. Wharton, Jr., and Company, Philadelphia, Pa. Rail-chair .....	383,765	May 20	2822	743	43	1096

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Quinn, James, Jr., assignor to W. Wharton, Jr., and Company, Philadelphia, Pa. Rail-fastening	388,220	Aug. 21	1585	422	44	891
Quinn, Patrick, assignor of one-half to F. W. Brown, Cambridgeport, Mass. Dress-form	385,725	July 10	587	152	44	122
Quinn, Thomas J., and D. McLellan, Woodstock, Ontario, Canada. Device for checking horses	381,580	Apr. 24	1925	507	43	409
Quinn, William, <i>et al.</i> (See Bartley, Leon C., assignor.)						
Quintal, Antoine E., Montreal, Quebec, Canada. Wheel-making machine	394,608	Dec. 18	1320	345	45	1345
Quitmann, Carl. (See Govers, Johann P., assignor.)						
Qurlin, Nicolas, Kirchberg-on-the-Wechsel, Lower Austria, Austria-Hungary. Belt-coupling	380,695	Apr. 10	592	162	43	128
Qvarnström, Carl, Tjornej Gorod, Baku, Russia, assignor to M. F. Ryden, London, England. Apparatus for burning liquid fuel	390,036	Sept. 25	1881	496	44	1455
Raab, Karl, Kaiserslautern, Bavaria, Germany. Electric meter	388,583	Aug. 28	2123	569	44	1001
Raasch, Gustavus A., Higginsville, Mo. Windmill	390,517	Oct. 2	452	117	45	92
Rabbitt, Peter, Jacksonville, Ill. Portable derrick	377,576	Feb. 7	333	85	42	559
Raber, Nathan L., Corvallis, Oreg. Amalgamator	377,272	Jan. 31	2242	592	42	460
Raby, Pierre A. (See Hotchkiss and Raby.)						
Raby, Zachariah. (See Defoe, Edward, assignor.)						
Racer, John H., Bellbrook, Ohio. Hedge fence	384,713	June 19	1311	342	43	1386
Racer, William, Harrison, Ark. Coffee-pot	385,880	July 10	825	218	44	168
Raine Malleable and Wrought Iron Company. (See Emerson, Richard, assignor.)						
Radcliffe, Charles, assignor to New Jersey Manufacturing Company, Newark, N. J. Metallic button. (Reissue.)	10,917	Mar. 27	2135	570	42	1402
Raddin, John, Lynn, Mass. Lamp-chimney	383,855	Dec. 4	179	42	45	1105
Rader, Jacob T., Clyde, Ohio. Device for burning crude petroleum and other oils	387,811	Aug. 14	919	238	44	755
Radford, Isaac H. (See Bruce, Hunter, assignor.)						
Radley, William, Sandwich, Ill. Cotton-seed planter	392,689	Nov. 13	752	191	45	745
Rae, Julio H., Boston, Mass. Sluice-box	386,080	July 10	1021	271	44	208
Raesser, Christopher S. (See Fichtner, Josef, assignor.)						
Raezer, Levi, West Earl, Pa. Two-wheeled vehicle	379,723	Mar. 20	1268	338	42	1222
Rafferty, John B. (See Saunders and Rafferty.)						
Rafferty, William J., assignor of one-half to T. C. Loucks, N. C. Jennings, and C. Whalen, Chicago, Ill. Smoke-consuming furnace	390,252	Oct. 2	80	23	45	19
Ragsdale, Martin S., Freelandville, Ind, assignor of one-half to F. T. Phillips, Olney, Ill. Hoisting apparatus	377,465	Feb. 7	178	42	42	530
Ragsdale, William H., Versailles, Mo. Farm-gate	384,280	June 12	659	176	43	1256
Rahner, John G., assignor of one-half to C. J. Pfeiffer, Lebanon, Ill. Whip attachment for holding ribbons, banners, &c	394,509	Dec. 11	1142	296	45	1297
Railway Speed Recorder Company. (See Wilkins, Alexander G., assignor.)						
Railway Telegraph Supply Company. (See Ritchie, Foster, assignor.)						
Raines, Burriss W., Blossom Prairie, Tex. Quilting-frame	379,661	Mar. 20	1171	311	42	1203
Rainole, Gavin, Portland, New Brunswick, Canada. Track-lifter	383,988	June 5	219	65	43	1163
Rainnie, Gavin, Portland, New Brunswick, Canada. Safety appliance for car-trucks	390,804	Oct. 9	843	225	45	173
Rait, George B., Eversly, Iowa. Cut-off-valve gear	388,304	Aug. 21	1723	460	44	919
Ralston, Thomas B., Bothwell, county of Lanark, Scotland. Target and indicating device therefor	381,028	Apr. 10	1097	291	43	221
Ralya, John J., Springfield, Ind. Saw	381,814	Apr. 24	2258	590	43	475
Ralya, John J., and S. L. Heimold, Anderson, Ind. Saw	388,305	Aug. 21	1724	461	44	920
Ralya, William S., assignor to E. C. Atkins & Company, Indianapolis, Ind. Combined saw-jointer and gage	385,006	June 26	1749	452	43	1481
Ram, Gilbert S., assignor to T. Mace, Montclair, N. J. Filament for incandescent lamps	393,391	Nov. 27	1776		45	964
Ramapo Iron Works. (See Chapman, William A., assignor.)						
Rambicur, Alexandre, New York, N. Y. Line-holder	390,518	Oct. 2	453	117	45	92
Rambo, George G., Easton, Pa. Attachment for bedsteads for invalids	392,636	Nov. 13	680	170	45	731
Ramey, Henry M., Grinnell, Iowa. Portable pantry	381,641	Apr. 24	2013	528	43	427
Ramey, William L. (See Gillem, Eugene C., assignor.)						
Rammoser, Albert, Berlin, Germany. Fastening for gloves or corsets	387,009	July 31	2497	655	44	517
Ramsay, George H., Excelsior, Iowa. Coal and grain distributing apparatus	386,605	July 24	1948	514	44	405
Ramsay, Henry W., Lincoln, Nebr. Truss-bridge	381,168	Apr. 17	1324	353	43	274
Ramser, Paul, Dubuque, Iowa. Ruby-pin setter	384,544	June 12	1053	275	43	1228
Ramsey, John W., assignor of one-half to J. Corbus, Beaver Falls, Pa. Jar-fastener	376,043	Jan. 3	443	118	42	89
Ramsey, John W., assignor of one-half to J. Corbus, Beaver Falls, Pa. Compression-coupling	387,538	Aug. 7	501	131	44	670
Rancavan, John, assignor of one-half to J. S. Patterson, Cincinnati, Ohio. Car-coupling	382,730	May 15	1285	337	43	775
Ranck, William J. (See Kocher and Ranck.)						
Rand, Addison C. (See Kelly, Patrick, assignor.)						
Rand, Addison C. (See Nutting and Githens, assignors.) (Reissue.)						
Rand, Edwin R., Newton, assignor to Boston Car Spring Company, Boston, Mass. Acid-proof receptacle and lining therefor	394,296	Dec. 11	836	222	45	1240
Rand, Jefferson C., assignor of one-half to G. W. Hanes, Maynard, Iowa. Tool for removing watch-hands	380,407	Apr. 3	147	42	43	31
Randall, Charles A., New York, N. Y. Electrical time-stamp	380,594	Apr. 3	432	122	43	88
Randall, Charles A., New York, N. Y. Electrical time-stamp	380,595	Apr. 3	436	123	43	89
Randall, Charles A., New York, assignor, by mesne assignments, to W. D. Elger, Brooklyn, N. Y. Machine for cutting or punching checks, &c	383,766	May 29	2323	743	43	1090
Randall, Charles E., assignor to Hancock Inspirator Company, Boston, Mass. Injector	378,403	Feb. 21	1586	744	42	820
Randall, Charles W., and J. H. Smith, assignors of one-third to S. F. Emley, Jersey City, N. J. Scaffold for wooden buildings	382,901	May 15	1515	397	43	822
Randall, Edward S., Dayton, Ohio. Combined bottle-opener and liquid-dropper	384,471	June 12	932	242	43	1306
Randall, Henry, Brooklyn, N. Y. Boiler-tube cleaner	377,171	Jan. 31	2093	552	42	432
Randall, Isaac, Milwaukee, Wis. Stamp-adixing stand	395,172	Dec. 25	2251	578	45	1532
Randall, Isaac H. (See Marchbank, James A., assignor.)						
Randall, Isaac H., Boston, Mass. Advertising-rack	380,696	Apr. 10	593	163	43	128
Randall, Isaac H., Boston, Mass. Rail for street-railways and chairs	382,385	May 8	768	195	43	665
Randall, James, San Francisco, Cal. Fire-kindler	381,951	May 1	74	19	43	529
Randall, James D. (See Randall, Silas H., assignor.)						
Randall, James D., assignor of one-half to G. Schmalzried, Jr., Memphis, Tenn. Detachable circuit-closing device for electric bells and annunciators	391,917	Oct. 30	2442	660	45	510
Randall, Peter R., Agency, Mo. Guard for switch-points	379,809	Mar. 20	1403	373	42	1249
Randall, Richard N., <i>et al.</i> (See Heath, Watson A., assignor.)						
Randall, Silas H., assignor of one-half to J. D. Randall, Wyoming, Ohio. Leather-trimming machine	380,296	Mar. 27	2113	566	42	1397

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Randall, Silas H., assignor of one-half to J. D. Randall, Wyoming, Ohio. Leather-creasing machine	381,029	Apr. 10	1098	292	43	221
Randall, Silas H., assignor of one-half to J. D. Randall, Wyoming, Ohio. Leather-skiving machine	391,190	Oct. 16	1420	380	45	289
Randall, William H., Chicago, Ill. Fuse-lighter	388,716	Aug. 28	2317	623	44	1038
Randle, John E. (See Robinson, William A., assignor.)						
Randleman, Martin C. (See Randleman, Zouave S. and M. C.)						
Randleman, Martin C. and Z. S. Carlisle, Iowa. Pig-pen	391,858	Oct. 30	2357	640	45	493
Randleman, Zouave S. (See Randleman, Martin C. and Z. S.)						
Randleman, Zouave S. and M. C. Carlisle, Iowa. Hay and fodder fork	384,281	June 12	660	177	43	1256
Randol, Harriet, Pottersburg, Kans. Provision-sate	381,721	Apr. 24	2134	559	43	451
Randolph, George W., Memphis, Tenn. Cultivator	376,008	Jan. 3	394	104	42	79
Randolph, Mahlon, New York, N. Y. Journal-bearing	377,049	Jan. 31	1916	504	42	396
Rank, George, Salem, Ohio. Harness-saddle	381,952	May 1	75	19	43	529
Rankin, Andrew N., Jamaica, N. Y. Tool for forming cold-packed pipe joints	376,609	Jan. 17	1256	329 330	42	255
Rankin, Samuel A., Mulberry, Mo. Weather-strip	375,951	Jan. 3	304	81	42	63
Rankin, William H., Lawrence, Mass. Card-grinding mechanism	377,116	Jan. 31	2028	531	42	417
Rankins, Milton N., Willettsville, Ohio. Cant-book	392,752	Nov. 13	847	216	45	764
Rankins, William J., Augusta, Ky. Fender-spar	379,329	Mar. 13	677	183	42	1099
Ranks, Elbridge F., Lewiston, Me. Water-motor	376,610	Jan. 17	1259	330	42	256
Ranlett, Albert S., New Orleans, La. Cotton-bale cover	390,519	Oct. 2	454	118	45	92
Ranshaw, Thomas C., assignor to Carpenter & Ranshaw, Cincinnati, Ohio. Book	387,917	Aug. 14	1091	289	44	789
Ranshaw, Thomas C., assignor to Carpenter & Ranshaw, Cincinnati, Ohio. Book	387,918	Aug. 14	1093	289	44	790
Ransom, Albert F., Burlington, Wis. Horse-collar fastening	377,050	Jan. 31	1917	504	42	396
Ransom, Hiram W., Cincinnati, Ohio. Fifth-wheel	392,825	Nov. 13	962	247	45	787
Ransom, Moses Y., Cleveland, Ohio. Former for boat-building	391,272	Oct. 16	1539	408	45	311
Ransom Stove Company. (See Rathbone, Clarence, assignor.)						
Rapid Service Store Railway Company. (See Adams, Milton F., assignor.)						
Rapid Service Store Railway Company. (See McCarty, Robert A., assignor.)						
Rapid Transit Cable Company. (See Pendleton, John H., assignor.)						
Rapid Transit Cable Company. (See Pendleton and Tiers, assignors)						
Raplee, Jefferson T. (See Black, John, assignor.)						
Rapp, Aaron. (See Richardson and Rapp.)						
Rapp, Aaron R., West Chester, Pa. Press for butter or other plastic materials	392,882	Nov. 13	1038	268	45	803
Rapp, Daniel V. C., Jersey City, N. J. Spacing device for garden cultivation	391,077	Oct. 16	1266	336 337	45	259
Rappleve, Nicholas B. (See Davis, James S., assignor.)						
Rappold, Peter. (See Fisher and Rappold.)						
Rardon, William. (See Snow and Howard, assignors.)						
Rariden, Francis M., Waynetown, assignor of one-half to A. R. Heath, Covington, Ind. Car-coupling	377,689	Feb. 7	512	131	42	591
Rariden, Francis M., Waynetown, Ind., assignor of one-half to T. D. Hartson, Bloomington, Ill. Car-coupling	390,095	Sept. 25	1972	525	44	1474
Rasey, John D., Oshkosh, Wis. Boiler-setting	386,159	July 17	1215	324	41	253
Rasmussen Cable Company. (See McNeil, Hobart W., assignor.)						
Rasmussen, Christian. (See Holden and Rasmussen.)						
Rasmussen, Einar. (See Wightman and Rasmussen.)						
Rasner, Abraham, assignor of one-half to H. F. Dinger, Pittsburg, Pa. Apparatus employed in systems of indirect radiation	386,031	July 10	1022	272	44	209
Rast, August, Ottakring, near Vienna, Austria-Hungary. Tube-cleaner	386,848	July 31	2262	595	44	471
Rathbone, Clarence, assignor to Ransom Stove Company, Albany, N. Y. Cook-stove	385,135	June 26	1947	497	43	1521
Rathbun, Willett G. (See Barber, Amos P., assignor.)						
Rathmann, Christian. (See Rathmann, George D. and C.)						
Rathmann, George D. and C., Blair, Neb. Railway-crossing alarm-signal	384,390	June 12	827	215	43	1286
Rau, Henry M., Hanover, Pa. Manufacture of tannin extracts	376,315	Jan. 10	877		42	177
Rau, John, Belleville, Ill. Oven for cooking-stoves	383,147	May 22	1903	497	43	906
Rau, John, St. Louis, Mo. Oil-can	383,370	May 22	2218	588	43	965
Rau, John, assignor of one-half to A. F. Klotzbach, Belleville, Ill. Fan attachment for cradles	382,386	May 8	769	195	43	665
Rau, John, assignor of one-half to A. F. Klotzbach, Belleville, Ill. Fan attachment for rocking chairs	393,342	Nov. 20	1698	449	45	940
Rauh, James W. (See Pascoe and Rauh.)						
Rauch, Edward C. (See Saunders and Rauch.)						
Raum, Jerome. (See Bruhn and Raum.)						
Rautert, Fritz. (See Buschick and Rautert.)						
Rawiszer, Jacob. (See Trantel and Rawiszer.)						
Rawlins, Joseph W. V., Hancock, Mich. Friction-clutch	377,777	Feb. 14	673	169	42	638
Rawlins, Joseph W. V., Hancock, Mich. Game apparatus	391,273	Oct. 16	1540	408	45	311
Rawson, Edmund G. (See Rhodes, Stephen E., assignor.)						
Rawson, George W., Cambridge, Mass. Hoisting-bucket	394,297	Dec. 11	838	222	45	1210
Ray, John. (See Hoskins and Ray.)						
Ray, Serrin, Alderley, Wis. Grain-divider	383,542	May 29	2505	661	43	1024
Raymond, Albert. (See Raymond, George and A.)						
Raymond, Albert, assignor of one-half to G. Raymond, Chicago, Ill. Car-connection	376,907	Jan. 24	1723	452 453	42	352
Raymond, Charles, Chicago, Ill. Machine for preparing moldings for gilding	393,451	Nov. 27	1858	489 490	45	980
Raymond, Claude, Paris, France. Photographic printing in fatty inks	377,198	Feb. 7	226	55	42	539
Raymond, Franklin L. (See Raymond, Silas H., assignor.)						
Raymond, Freeborn F., 2d. (See Small, Chester C., assignor.)						
Raymond, Freeborn F., 2d, Newton, Mass. Nail-making machine	376,208	Jan. 10	690	183	42	141
Raymond, Freeborn F., 2d, Newton, Mass. Heel-compressing machine	376,751	Jan. 24	1487	392	42	308
Raymond, Freeborn F., 2d, Newton, Mass. Heel-compressing machine	376,908	Jan. 24	1725	453 454	42	352
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine	377,172	Jan. 31	2094	552	42	433
Raymond, Freeborn F., 2d, Newton, Mass. Heel nailing and trimming machine	377,577	Feb. 7	334	86	42	559
Raymond, Freeborn F., 2d, Newton, Mass. Heel-attaching machine	377,958	Feb. 14	933	242 243	42	690
Raymond, Freeborn F., 2d, Newton, Mass. Heel forming and attaching machine	378,216	Feb. 21	1303	345 346	42	768
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine	378,617	Feb. 28	1900	502 503	42	891
Raymond, Freeborn F., 2d, Newton, Mass. Forming and attaching heels	379,029	Mar. 6	219	70, 71	42	1012



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Raymond, Freeborn F., 2d, Newton, Mass. Nail distributing and feeding machine .....	379,330	Mar. 13	678	{ 183 184	42	1099
Raymond, Freeborn F., 2d, Newton, Mass. Heel-nailing machine .....	379,810	Mar. 20	1404	374	42	1249
Raymond, Freeborn F., 2d, Newton, Mass. Flush-nailing the heels of boots or shoes .....	380,133	Mar. 27	1902	508	42	1354
Raymond, Freeborn F., 2d, Newton, Mass. Nail making and distributing machine .....	380,596	Apr. 3	438	{ 123 124	43	89
Raymond, Freeborn F., 2d, Newton, Mass. Nail making and distributing machine .....	380,818	Apr. 10	772	{ 211 212	43	162
Raymond, Freeborn F., 2d, Newton, Mass. Machine for making, distributing, and driving nails .....	381,280	Apr. 17	1480	{ 397 398	43	304
Raymond, Freeborn F., 2d, Newton, Mass. Nail feeding and distributing machine .....	383,911	June 5	98	29	43	1139
Raymond, Freeborn F., 2d, Newton, Mass. Slug for heel-nailing .....	385,960	July 10	926	245	44	169
Raymond, Freeborn F., 2d, Newton, Mass. Manufacture of loaded heel-blanks .....	386,656	July 24	1950	515	44	406
Raymond, Freeborn F., 2d, Newton, Mass. Heel-attaching machine .....	394,298	Dec. 11	839	{ 222 223	45	1240
Raymond, Freeborn F., 2d, Newton, Mass. Nail making and distributing machine .....	394,609	Dec. 18	1322	346	45	1345
Raymond, Freeborn F., 2d, Newton, Mass. Machine for making and distributing nails .....	394,610	Dec. 18	1325	{ 347 348	45	1345
Raymond, George. (See Raymond, Albert, assignor.)						
Raymond, George and A., Chicago, Ill., assignors to Appleton Manufacturing Company, Appleton, Wis. Grinding-mill .....	387,257	Aug. 7	86	{ 20 21 22	44	588
Raymond, George and A., Chicago, Ill., assignors to Cyclone Pulverizer Company of the United States of America, New York, N. Y. Machine for reducing ores, &c. ....	387,446	Aug. 7	371	96	44	646
Raymond, George and A., Chicago, Ill., assignors to Cyclone Pulverizer Company of the United States of America, New York, N. Y. Reducing-machine .....	387,539	Aug. 7	502	131	44	670
Raymond, George and A., Chicago, Ill., assignors to Cyclone Pulverizer Company of the United States of America, New York, N. Y. Reducing-machine .....	387,598	Aug. 7	618	160	44	691
Raymond, James H., trustee. (See Mitchell, Charlie L., assignor.)						
Raymond, John M. (See Beard and Raymond.)						
Raymond, Samuel S., and S. N. Bourne, Manchester, N. H., and W. W. Carey, Lowell, Mass. Gage and feed attachment for buzz planing-machines .....	388,584	Aug. 28	2124	{ 570 571	44	1001
Raymond, Silas H., Grand Rapids, Mich., assignor of one-half to F. L. Raymond, Cleveland, Ohio. Vehicle-spring .....	376,161	Jan. 10	624	167	42	130
Raymond, Silas H., Grand Rapids, Mich., assignor to Abbott Buggy Company, Chicago, Ill. Vehicle-spring .....	394,393	Dec. 11	985	258	45	1269
Raynal, Alfred H., Hoboken, N. J. Punch .....	376,009	Jan. 3	396	105	42	79
Raynor, Thomas F. (See Ames, Charles H., assignor.)						
Razall, Henry G., Milwaukee, Wis. Combined book and index .....	392,066	Oct. 30	2660	723	45	552
Reach, A. J., et al. (See Brown, Samuel, assignor.)						
Read, Charles H., Jr., and A. M. Coyle, Washington, D. C. Speed-governor for elevators ..	392,753	Nov. 13	848	216	45	765
Read, D. Dean, Boston, Mass. Elevated railway .....	379,181	Mar. 6	447	126	42	1051
Read, Daniel M., New York, N. Y. Pocket-book clasp .....	379,724	Mar. 20	1209	338	42	1223
Read, John H., San Francisco, Cal. Cartridge-loading apparatus .....	382,830	May 15	1416	372	43	801
Reade, Charles A., Chicago, Ill. Carriage-body .....	376,162	Jan. 10	624	{ 167 168	42	131
Reade, Charles A., Chicago, Ill. Vehicle-wheel .....	381,722	Apr. 24	2135	559	43	451
Readon, Hiram S. (See Bernard, Frederick A., assignor.)						
Ready, William D., New York, N. Y. Temporary binder .....	388,717	Aug. 28	2318	624	41	1028
Ready, William D., New York, N. Y. Temporary binder .....	394,394	Dec. 11	985	{ 258 259	45	1269
Reagan, Beverly, Onachita, assignor to himself and O. B. Steele, Baton Rouge, La. Pipe-wrench .....	389,666	Sept. 18	1329	348	44	1337
Reagan, James. (See Kittson and Reagan.)						
Reams, Andrew J., Angusta, Kans. Electric winding attachment for clocks .....	384,472	June 12	932	{ 242 243	43	1307
Reams, John V., assignor of two-thirds to F. L. Beacham and R. W. Clason, Midland, Mich. Guard for railways .....	389,245	Sept. 11	690	176	41	1212
Reamy, Thomas J., assignor of one-half to T. Parkes, Nashville, Tenn. Track and lifting jack .....	394,395	Dec. 11	987	259	45	1270
Reando, Joseph M. (See White, William E., assignor.)						
Reardon, Dennis A., South Boston, Mass., and C. A. Gardner, Hyde Park, Mass. Door-check .....	388,074	Aug. 21	1338	361	44	846
Reardon, George W., et al. (See Ammons, John B., assignor.)						
Reardon, Henry B., assignor of one-half to W. H. Swenson, Norfolk, Va. Combined desk-ruler and check-cutter .....	386,718	July 24	2030	535	44	420
Reaser, Warren T., Fairmont, Nebr., assignor to Round Valve Company, Chicago, Ill. Balanced oscillating valve .....	394,505	Dec. 11	1133	294	45	1296
Rechniewski, Wincelas C., Paris, France. Core for dynamo-electric machines .....	378,375	Feb. 21	1547	405	42	813
Reckenzaun, Anthony, London, England, assignor to Electric Car Company of America, Philadelphia, Pa. Dynamo-electric machinery .....	385,068	June 26	1852	474	43	1500
Reckenzaun, Anthony, London, England, assignor to Electric Car Company of America, Philadelphia, Pa. Secondary battery .....	385,200	June 26	2041	522	43	1539
Reckenzaun, Anthony, assignor of one-half to J. A. Pentz, Philadelphia, Pa. Electric meter .....	394,881	Dec. 18	1778	{ 461 462	45	1434
Reckenzaun, Anthony, and J. A. Pentz, Philadelphia, Pa. Electric meter .....	394,880	Dec. 18	1776	461	45	1434
Recoura, Etienne J., et al. (See Romain, François, assignor.)						
Recoura, Henrietta, et al. (See Romain, François, assignor.)						
Reddick, William A., Niles, Mich. Wire joint .....	387,447	Aug. 7	372	96	44	646
Redding, William A., New York, assignor to F. W. Snow, Hillburn, N. Y. Switch-stand ..	384,714	June 19	1312	343	43	1386
Reddy, Edward, Little Falls, N. Y. Molding .....	390,398	Oct. 2	287	75	45	61
Reddy, James M., Chicago, Ill. Steam-washer .....	380,729	Apr. 10	643	178	43	138
Reder, Joseph, Creighton, Pa. Manufacture of ornamental glass articles .....	389,595	Sept. 18	1214	{ 317 318	44	1316
Redfield, Edward E., Linkville, Oreg. Magazine-gun .....	378,556	Feb. 28	1816	{ 479 480	42	875
Redford, Erwin A., Eau Claire, Wis. Wagon-jack .....	387,735	Aug. 14	818	211	44	735
Redick, Joseph H. (See Redick, Reubin F. and J. H.)						
Redick, Reubin F. and J. H., Spencerville, Ohio. Detachable-link chain .....	389,554	May 8	1028	262	43	716
Redick, Reubin F. and J. H., Spencerville, Ohio. Saw-mill dog .....	382,553	May 8	1029	262	43	716
Redington, John T., assignor of one-half to T. Redington, Jr., Ambler, Pa. Toothed wheel ..	393,518	Nov. 27	1977	516	45	1004
Redington, Thomas, Jr. (See Redington, John T., assignor.)						
Redington, William H. (See Rodiger, William, assignor.)						
Redington, William H., Chicago, Ill. Bottle-stopper .....	382,191	May 1	456	118	43	598

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Redline, Joseph S., Derris, Pa. Cover for wells or cisterns.....	376,010	Jan. 3	397	105	42	79
Redman, Robert C., Salem, Oreg. Weather-strip.....	386,267	July 17	1387	366	44	284
Redman, Thomas, Bradford, England. Velocipede.....	385,136	June 26	1948	498	43	1521
Redmon, James J. (See Hardwicke and Redmon.)						
Redmond, Edmond, Rochester, N. Y. Dust-fender for railway-trains.....	389,246	Sept. 11	692	176	44	1212
Reece, John. (See Hill, George S., assignor.)						
Reece, Tolbert J., assignor of one-half to P. E. Colwell, Jr., and F. C. Miller, Mechanicsburg, Ohio. Egg-case fastener.....	392,221	Nov. 6	70	17	45	608
Reed, Benjamin K., Buena Vista, Colo. Excavator.....	378,720	Feb. 28	2019	541	42	919
Reed, Calvin M., Hoppenville, Pa. Sash-holder.....	393,264	Nov. 20	1585	415	45	918
Reed, Charles F. (See Boehm and Reed.)						
Reed, Charles M., near Connersville, and W. C. Frazee, near Clermont, Ind. Spring-motor for pumps.....	387,736	Aug. 14	819	211	41	735
Reed & Company, D. C. and H. C. (See Reed and Clark, assignors.)						
Reed, Edward F. (See Howard, Robert W., assignor.)						
Reed, Franklin M., Pittsburg, Pa. Paint.....	394,396	Dec. 11	989	-----	45	1270
Reed, Frederick E. (See Back, John K., assignor.)						
Reed, Frederick R., assignor of one-fourth to M. M. O'Connell, Pittsburg, Pa. Pottery-machine.....	393,452	Nov. 27	1860	490	45	980
Reed, Harry A. (See Reed, John M. and H. A.)						
Reed, Heber C., and A. Clark, assignors to D. C. and H. C. Reed & Company, Kalamazoo, Mich. Spring-tooth harrow.....	388,306	Aug. 21	1727	461	44	920
Reed, J. Van D. (See Stowe, Benjamin L., assignor.)						
Reed, Jacob P., assignor of one-half to B. B. Wolf, New York, N. Y. Caster.....	377,721	Feb. 7	553	141 142	42	599
Reed, James D. S., assignor of one-half to W. G. F. Reed, Chicago, Ill. Road-scraper.....	383,068	May 15	1779	460	43	872
Reed, James H., Lynn, Mass. Button-hole stitching and barring machine.....	378,494	Feb. 21	1588	417 418	42	821
Reed, James H., Lynn, Mass. Cuff-holder.....	381,642	Apr. 24	2014	529	43	427
Reed, James H., Lynn, Mass. Button-hole stitching and barring machine.....	394,134	Dec. 4	582	156 157	45	1182
Reed, James H., Lynn, Mass., assignor, by mesne assignments, to Globe Button-Hole Machine Company, Kittery, Me. Button-hole stitching and barring machine.....	378,217	Feb. 21	1305	346 347 348	42	768
Reed, James H., Lynn, Mass., assignor to Globe Button-Hole Machine Company, Kittery, Me. Barring button-boles.....	378,218	Feb. 21	1310	348	42	769
Reed, James H., Lynn, Mass., assignor to Globe Buttonhole Machine Company, Kittery, Me. Cutter for button-hole sewing-machines.....	393,925	Dec. 4	283	76	45	1126
Reed, James H., and J. E. Wheeler, Lynn, Mass.; said Reed assignor to said Wheeler. Machine for making wire fasteners for bottle-stoppers.....	378,177	Feb. 21	1250	329	42	757
Reed, James H., and F. W. Beale, Lynn, Mass., assignors, by mesne assignments, to Globe Buttonhole Machine Company, Kittery, Me. Button-hole-stitching machine.....	389,010	Sept. 4	292	78	44	1128
Reed, James L., Brooklyn, assignor of five-ninths to De Long & French, New York, N. Y. Asbestos-faced felt.....	387,368	Aug. 7	260	65	44	622
Reed, James P. (See Schofield, James D., assignor.)						
Reed, John. (See Kirkland and Reed.)						
Reed, John D., Boston, Mass. Preserving meat.....	377,404	Feb. 7	55	15	42	506
Reed, John D., Julesburg, Colo. Buggy-top.....	379,493	Mar. 13	918	246	42	1146
Reed, John H., Lancaster, Wis., assignor of one-half to C. S. Smith, Chicago, Ill. Dental matrix.....	376,548	Jan. 17	1165	306	42	238
Reed, John J., assignor of one-half to D. B. Snyder, Lyons, Iowa. Sash-fastener.....	394,936	Dec. 18	1877	485	45	1452
Reed, John M., Beaver Falls, and H. A. Reed, assignors of one-third to G. B. Bosworth, Pittsburg, Pa. Manufacture of shovel-blanks.....	392,134	Oct. 30	2778	754 755	45	576
Reed, John M., Beaver Falls, and H. A. Reed, assignors of one-third to G. B. Bosworth, Pittsburg, Pa. Manufacture of shovel-blanks.....	392,135	Oct. 30	2780	755	45	576
Reed, John W., Paxton, Ill. Napkin-holder.....	389,940	Sept. 25	1740	461	44	1427
Reed, Lewis M., Burton, Kans. Stalk-cutter.....	393,392	Nov. 27	1777	470	45	964
Reed, Nathan F., Hyde Park, Vt. Whiffletree-hook.....	376,011	Jan. 3	398	105	42	80
Reed, Paul D. (See Cook, William, assignor.)						
Reed, Thomas L., assignor of one-half to A. U. Everts and M. L. Cummins, La Porte City, Iowa. Means for detaching and controlling life-buoys.....	393,122	Nov. 20	1380	360	45	876
Reed, Willard V., Lowville, N. Y. Whiffletree-hook.....	394,998	Dec. 25	1979	511	45	1481
Reed, William G. F. (See Reed, James D. S., assignor.)						
Reed, William H. (See Harmon, Charles H., assignor.)						
Reed, William M., Shelton, Neb. Car-coupling.....	379,331	Mar. 13	680	184	42	1100
Reed, William S., et al. (See Gould, Charles E., assignor.)						
Reeder, Allen H. (See Perrine, Alfred T., assignor.)						
Reeder, Thomas E., Detroit, Mich. Combined case, picture-frame, and pocket.....	392,067	Oct. 30	2661	723	45	552
Reeder, William S., St. Louis, Mo. Saw-mill dog.....	377,911	Feb. 14	863	222	42	675
Reeder, William S., St. Louis, Mo. Baling-press.....	379,414	Mar. 13	800	215 216	42	1124
Reedy, P. Alphonsus, Jamestown, Dak. Ter. Cut-off for gasoline-stoves.....	387,656	Aug. 14	699	180	44	713
Rees, James, Pittsburg, Pa. Adjustable cut-off for engines.....	392,460	Nov. 6	424	105 106	45	674
Rees, Thomas M., Pittsburg, Pa. Securing stanchions of vessels in place.....	382,620	May 8	1130	291	43	735
Rees, Thomas M., Pittsburg, Pa. Re-enforcing the hulls of vessels.....	388,917	Sept. 4	167	44	44	1104
Rees, William H., and J. H. Matthews, Trading Post, Kans. Buggy-top.....	376,012	Jan. 3	398	105	42	80
Reese, Abram, assignor to Reese Safety Brake Company, (limited,) Pittsburg, Pa. Car-brake.....	377,437	Feb. 7	138	31	42	521
Reese, Abram, assignor to Reese Safety Brake Company, (limited,) Pittsburg, Pa. Car-brake.....	377,438	Feb. 7	140	31	42	521
Reese, Abram, assignor to Reese Safety Brake Company, (limited,) Pittsburg, Pa. Car-brake.....	385,067	June 26	1750	453	43	1481
Reese, Abram, assignor to Reese Safety Brake Company, (limited,) Pittsburg, Pa. Car-brake.....	387,695	Aug. 14	759	193 194	44	724
Reese, Charles D. (See Wallace and Reese.)						
Reese, Jacob, Pittsburg, Pa. Metallic railway-tie.....	384,785	June 19	1406	368	43	1406
Reese Safety Brake Company. (See Reese, Abram, assignor.)						
Reese, Thomas, Jr., Erie, Pa. Furnace bridge-wall.....	382,109	May 1	317	91	43	577
Reese, Thomas, Jr., Erie, Pa. Stay-bolt-hole drilling and tapping machine.....	386,032	July 10	1023	272	41	209
Reese, Zach J., et al. (See Richards, John, assignor.)						
Reeves, Charles W., assignor to J. Jacobs, Boston, Mass. Try-square and bevel.....	386,033	July 10	1025	272	44	209
Reeves, Horace E., Sanborn, Iowa. Corn-harvester.....	388,150	Aug. 21	1491	396 397	41	872

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Reeves, James L., <i>et al.</i> (See Bryant, William A., assignor.)						
Reeves, Paul S., Philadelphia, Pa. Hand-charger for combining metals with chemicals, minerals, &c.	384,075	June 5	346	98	43	1187
Reeves, Thomas H. (See Milburn, George E., assignor.)						
Reeves, William W. (See Harford and Reeves.)						
Regan, Dennis J., Agawam, assignor of one-half to L. F. Whitman, Springfield, Mass. Har-ness-trimming	390,096	Sept. 25	1974	525	44	1474
Regester, Robert A., Baltimore, Md. Device for molding cores	386,606	July 24	1874	495	44	391
Regester, Robert F., assignor of one-third to S. W. Regester, Baltimore, Md. Letter-box	386,757	July 24	2086	548	44	430
Regester, Samuel W. (See Regester, Robert F., assignor.)						
Regester & Sons, J. (See Dunnett, William D., assignor.)						
Register, Henry C., Philadelphia, Pa. Dental engine	375,834	Jan. 3	145	42	42	33
Rehlfuss, George. (See Beasley and Rehlfuss.)						
Rehlfuss, George, J. G., and M. O., Philadelphia, Pa., assignors to American Barrel and Stave Company, Camden, N. J. Barrel-making machine	380,931	Apr. 10	949	{ 251 252 }	43	194
Rehlfuss, George, J. G., and M. O., Philadelphia, Pa., assignors to American Barrel and Stave Company, Camden, N. J. Barrel-stave-cutting machine	384,786	June 19	1407	{ 368 369 370 }	43	1403
Rehlfuss, J. George. (See Beasley and Rehlfuss.)						
Rehlfuss, John G. (See Beasley, Rehlfuss, and Newhall.)						
Rehlfuss, John G. (See Rehlfuss, George, J. G., and M. O.)						
Rehlfuss, John G., Philadelphia, Pa., assignor to American Barrel and Stave Company, Camden, N. J. Bending barrel-staves	393,661	Nov. 27	2159	574	45	1046
Rehlfuss, Martin O. (See Beasley and Rehlfuss.)						
Rehlfuss, Martin O. (See Rehlfuss, George, J. G., and M. O.)						
Rehkopf, Fredrick, Memphis, Tenn. Harness-saddle	379,605	Mar. 20	1096	291	42	1187
Rehkopf, Fredrick, Memphis, Tenn. Pad-plate for harness-saddles	379,606	Mar. 20	1097	292	42	1187
Rehm, Joseph, Buffalo, N. Y. Steam trap	393,582	Nov. 27	2062	539	45	1022
Rehnström, Albert V. (See Brinck and Rehnström.)						
Reichart, Adam, <i>et al.</i> (See Henry, Charles A., assignor.)						
Reichart, Emanuel and J. P., Neola, Iowa. Cultivator	377,273	Jan. 31	2244	593	42	460
Reichart, Emanuel and J. P., Neola, Iowa. End-gate for wagons	390,253	Oct. 2	51	23	45	19
Reichert, Jacob P. (See Reichart, Emanuel and J. P.)						
Reichenbach, Edward, Orrville, Ohio. Ditching-level	383,767	May 29	2825	744	43	1090
Reichenbach, Jacob J., Centralia, Ill. Display-frame	384,334	June 12	745	{ 195 196 }	43	1270
Reichling, Oscar E. H. N., Marion, Ind. Fence	387,107	July 31	2627	691	44	542
Reichwein, Max, Vienna, Austria-Hungary, assignor to Hirsh & Brother, Philadelphia, Pa. Umbrella or parasol tip	390,900	Oct. 9	978	257	45	198
Reid, Arthur B., Chicago, Ill. Attachable copy-holder	379,346	Mar. 13	556	155	42	1077
Reid & Co., James. (See Drnell and Goldie, assignors.)						
Reid, Hugh M. (See Hopkins, Edward A., assignor.)						
Reid, John, Yonkers, assignor to J. L. Mott Iron Works, New York, N. Y. Supply fittings for basins	391,647	Oct. 23	2045	553	45	421
Reid, John, Yonkers, assignor to J. L. Mott Iron Works, New York, N. Y. Bidet	392,461	Nov. 6	425	106	45	674
Reid, Joseph, Oil City, Pa. Hydrocarbon-burner	388,718	Aug. 28	2318	624	44	1038
Reid, Pettis A. (See Elliott and Reid.)						
Reid, Robert B. (See Donaldson, Walter H., assignor.)						
Reid, Thomas J., Gananoque, Ontario, Canada. Tiring wheels	393,030	Nov. 20	1259	336	45	853
Reid, W. C. (See Larew, William H., assignor.)						
Reid, William A., <i>et al.</i> (See Coffman, George, assignor.)						
Reidy, Philip A., assignor of one-half to A. M. Ellis, Malden, Mass. Thill-coupling	385,374	July 3	52	15	44	12
Reiff, Gustavus N., Reading, Pa. Railway-switch	389,716	Sept. 18	1403	367	44	1352
Reiff, Josiah C. (See Barney, William C., assignor.)						
Reiff, William H., Philadelphia, Pa. Burglar-alarm	376,909	Jan. 24	1727	454	42	353
Reifschneider, Felix, Brooklyn, N. Y. Alarm	386,607	July 24	1876	495	44	391
Reihlen, Friedrich A., Stuttgart, Württemberg, Germany. Treating sparkling or efferves-cent beverages	392,883	Nov. 13	1039	268	45	804
Reil, Friedrich, Brandenburg, Prussia, Germany. Canister	392,668	Oct. 30	2662	724	45	552
Reiling, August, Fort Wayne, Ind. Double-acting pump	390,901	Oct. 9	979	258	45	198
Reiley, James, assignor of one-half to T. A. Bissell, Buffalo, N. Y. Die for forging truck-equalizers	387,812	Aug. 14	921	239	44	756
Reiley, James, assignor of one-half to T. A. Bissell, Buffalo, N. Y. Die for forging trans-oms for car-trucks	389,408	Sept. 11	926	243	44	1256
Reiley, James, assignor of one-half to T. A. Bissell, Buffalo, N. Y. Die for forging truss-rod anchors for railway-cars	395,173	Dec. 25	2252	578	45	1532
Reiley, Richard S. (See Reiley, Terence F., assignor.)						
Reiley, Terence F., assignor of one-half to R. S. Reiley, New York, N. Y. Bail-car	387,182	July 31	2755	721	44	562
Reilly, Christopher P., New York, assignor of two-thirds to T. F. Ryder, West New Brighton, N. Y. Protector for electric-lamp sockets	382,110	May 1	348	91	43	577
Reilly, Dennis J., Brooklyn, N. Y. Apparatus for casting printers' rollers	392,166	Oct. 30	2827	766	45	554
Reilly, James J., Spokane Falls, Wash. Ter., assignor of one-fourth to C. W. Tozer, San Francisco, Cal. Means for preventing the creeping of rails and rail-joints	378,721	Feb. 28	2051	541	42	919
Reilly, Owen, New York, assignor to G. H. Clarke, Brooklyn, N. Y. Grate-bar	390,902	Oct. 9	980	258	45	198
Reilly, Patrick. (See Fox, Edward, assignor.)						
Reimann, George, assignor to Naehmaschinen-Fabrik, vormals Frister & Rossmann, Actien-Gesellschaft, Berlin, Germany. Coin-released weighing-machine	376,910	Jan. 24	1728	{ 454 455 }	42	353
Reimann, George, assignor to Naehmaschinen-Fabrik, vormals Frister & Rossmann, Actien-Gesellschaft, Berlin, Germany. Locking-receptacle for fare-boxes	379,811	Mar. 20	1406	375	42	1249
Reimers, Henry, Perry, Tex. Fire-escape	383,491	May 29	2422	643	43	1009
Rein, Burnard, assignor of one-half to J. Halteman, Detroit, Mich. Vapor-stove	384,391	June 12	829	{ 215 216 }	43	1286
Rein, Gustavus. (See Ehrlich, Dubinski, and Rein.)						
Reinert, Frank, deceased, Newark, N. J.; M. A. Reinert, executrix. Pool-ball box	376,549	Jan. 17	1166	306	42	238
Reinert, Joseph, Newark, N. J. Shears	391,859	Oct. 30	2358	640	45	493
Reinert, Maria A., executrix. (See Reinert, Frank.)						
Reinhardt, Henry A., Columbus, Ohio. Inkstand	382,621	May 8	1131	291	43	735
Reinhardt, James H., assignor to J. Wetter, Memphis, Tenn. Consecutive-numbering machine	388,307	Aug. 21	1728	461	44	920
Reinhardt, Louisa, Louisville, Ky. Washing-machine	381,643	Apr. 24	2015	529	43	428
Reinhold, E. Ferd. (See Gratz and Reinhold.)						
Reinholdt, Claus H. (See Martin and Reinholdt.)						
Reininghaus, Gustav, Mayence, Hesse, Germany. Malt-kiln	385,137	June 26	1949	{ 498 499 }	43	1521

## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &	Vol.	Page.
Reinisch, Charles, Newark, N. J. Shoe for traveling-bags.	380,768	Apr. 10	702	194	43	149
Reinisch, Charles, Newark, N. J. Hinge for traveling-bags, &c.	385,138	June 26	1950	499	43	1521
Reinman, Albert L., assignor to Westinghouse Electric Company, Pittsburg, Pa. Incandescent electric lamp.	390,903	Oct. 9	981	258	45	198
Reinohl, David C. (See Scott, William H., assignor.)						
Reins, William S. (See Seal, William B., assignor.)						
Reis, John, Rondout, N. Y., assignor of one-half to Brewers Ice Company, of New York. Switch for ice-runs.	381,419	Apr. 17	1081	450 451	43	345
Reisert, Michael E., Hennef, Prussia, Germany. Grain-weighing apparatus.	376,965	Jan. 24	1799	473 474	42	366
Reisert, Michael E., assignor to Hennefer Maschinenfabrik C. Reuther & Reisert, Hennef, Germany. Automatic grain-scale.	376,679	Jan. 17	1373	360 361 362	42	277
Reisert, Wilhelm. (See Andersch, Wilhelm, assignor.)						
Reising, Caspar, Plantsville, Conn. Machine for folding sheet metal.	377,863	Feb. 14	791	202	42	660
Reisse, Richard A., St. Louis, Mo. Door-check.	384,715	June 19	1313	313	43	1387
Reitenour, Henry. (See Henizer, Nicholas, assignor.)						
Reitler, Charles W., Denver, Colo. Electric pen-holder.	381,953	May 1	78	19	43	529
Reiling, Charles J. (See Duffy and Reiling.)						
Remaley, John M. (See Copp and Remaley.)						
Rembert, Henry, Willis, Tex. Fly fan or brush.	388,719	Aug. 28	2320	621	41	1038
Remington, De La Fayette, Woodburn, Oreg. Traction-engine.	377,274	Jan. 31	2245	593 594	42	400
Remley, Fred A., Iowa City, Iowa. Type-writing machine.	385,008	June 26	1752	453	43	1481
Rennus, Theodor, assignor of one-half to J. Scherbel, Dresden, Saxony, Germany. Apparatus for applying strips to boxes.	383,656	May 29	2652	702 703	43	1057
Rennus, Theodor, assignor of one-half to J. Scherbel, Dresden, Saxony, Germany. Grooving apparatus for card-board, leather, and like material.	385,201	June 26	2042	522	43	1540
Rendel, George W., Newcastle-upon-Tyne, England. Mounting and loading apparatus for guns.	383,768	May 29	2827	744 745 746	43	1090
Rendel, George W., Newcastle-upon-Tyne, England. Mechanism for operating ordnance.	392,754	Nov. 13	849	217 218	45	765
Renne, Horace L., assignor of one-half to W. H. Verrill, Hammond, Ind. Safety car-door.	377,330	Jan. 31	2332	677	42	475
Rennie, Frank and J., Dayton, Ohio. Nut-lock.	378,618	Feb. 28	1903	504	42	892
Rennie, John. (See Rennie, Frank and J.)						
Rennyson, William, and H. Burgess, Norristown, Pa. Gas apparatus.	393,662	Nov. 27	2190	571	45	1046
Reno, Jesse W., Leadville, Colo. Rope tramway.	394,724	Dec. 18	1502	392 393	45	1380
Reno, Peter A., St. Louis, Mo. Heating-stove.	376,013	Jan. 3	399	106	42	80
Renout, Philipp L. C. F., and I. W. Boothroyd, London, county of Middlesex, England. Velocipede.	379,812	Mar. 20	1107	375	42	1250
Renshaw, Elmer E., Golconda, Ill., assignor of one-fourth to J. Owen, Paducah, Ky. Felly-iron.	392,637	Nov. 13	681	170	45	731
Rensland, Peter, and C. Fisher, Port Jervis, N. Y. Dumping-grate.	382,055	May 1	270	71	43	563
Rensselaer Manufacturing Company. (See Hall, Henry, assignor.)						
Requa, Charles M., New York, N. Y., assignor of one-third to C. H. Humphreys, Cincinnati, Ohio. Composition of matter for marking pencils or crayons.	394,937	Dec. 18	1879		45	1452
Requa, Leonard F., New York, N. Y., assignor, by mesne assignments, to Safety Insulated Wire and Cable Company. Covered or insulated wire or conductor.	375,952	Jan. 3	305	82	42	61
Resley, Horace, Cumberland, Md. Pavement-light.	379,127	Mar. 6	385	110	42	1038
Restein, Julius, Philadelphia, Pa. Device for operating churns, washing-machines, &c.	383,010	May 15	1686	434	43	854
Reubel, Henry, New York, and T. Lindberg, Brooklyn, N. Y. Curtain-pole bracket.	388,151	Aug. 21	1193	397	41	872
Reukauff, George C. (See Garrison and Reukauff.)						
Reuter, Conrad, Henderson, Ky. Egg-tester.	380,518	Apr. 3	324	92, 93	43	66
Revol, Etienne, assignor of one-half to A. Trollet, Paris, France. Making lacing-buttons.	393,721	Nov. 27	2271	596	45	1062
Reveltas, Juan N. (See Yigil and Reveltas.)						
Rew, Henry C., Chicago, Ill. Apparatus for manufacturing gas.	389,103	Sept. 4	442	116	41	1156
Rew, Henry C., Chicago, Ill. Apparatus for the manufacture of gas.	389,104	Sept. 4	446	116 117	41	1156
Rew, Henry C., Chicago, Ill. Apparatus for the manufacture of gas.	389,105	Sept. 4	451	117 118	41	1157
Rew, Henry C., Chicago, Ill. Making gas.	389,106	Sept. 4	458	118 119	41	1158
Rex, Alfred C. (See Parmelee, William L., assignor.)						
Rex, Alfred C., Philadelphia, Pa. Making lock-spindles.	376,014	Jan. 3	401	106	42	80
Rex, Alfred C., Philadelphia, Pa. Mechanical toy savings-bank.	379,607	Mar. 20	1098	292	42	1188
Rex, David J., Pittsburg, Pa. Folding paper box.	385,478	July 3	212	56	44	43
Rexford, Mortimer S., Norman, Dak. Ter. Intermittent gripping device.	383,371	May 22	2219	589	43	965
Rexford, Mortimer S., Norman, Dak. Ter. Steam-boiler.	384,716	June 19	1313	313 344	43	1387
Reynolds, Charles A., Winston, N. C. Tobacco-box.	385,726	July 10	588	153	41	122
Reynolds, Charles W., et al. (See Powers, Frank H., assignor.)						
Reynolds, Daniel, Croton, Ohio. Colter.	395,250	Dec. 25	2377	608	45	1554
Reynolds, Edwin. (See Gray, Birkholz, and Reynolds.)						
Reynolds, Edwin, Milwaukee, Wis. Valve-gear for ore-stamps.	377,578	Feb. 7	258	87	42	559
Reynolds, Edwin, Milwaukee, Wis. Valve mechanism for air-compressors.	378,336	Feb. 21	1193	391	42	892
Reynolds, Edwin, Milwaukee, Wis. Blowing-engine.	393,856	Dec. 4	180	49	45	1106
Reynolds, Edwin, Milwaukee, Wis. Steam-boiler.	394,211	Dec. 11	696	186	45	1213
Reynolds, Edwin, Providence, R. I. Rubber stamp.	380,349	Apr. 3	68	22, 23	43	16
Reynolds, Edwin, Providence, R. I. Rubber stamp.	383,321	May 22	2151	568	43	953
Reynolds, Edwin, Providence, R. I. Case for holding and presenting trays or boxes.	394,210	Dec. 11	695	186	45	1212
Reynolds, Gilbert C., J. and W. Paterson, Stockton, Cal. Combined header and thrasher.	381,723	Apr. 24	2136	559	43	452
Reynolds, Henry C., assignor of one-half to J. A. C. Groner, Norfolk, Va. Sash lock and fastener.	381,485	Apr. 17	1786	476	43	364
Reynolds, Henry S., Brooklyn, N. Y. Last-block fastener.	377,439	Feb. 7	111	31	42	521
Reynolds, Isaac L. W., et al. (See Hillman, Judson C., assignor.)						
Reynolds, John, Chicago, assignor to W. B. Gilbert, Austin, Ill. Paper holder and cutter.	381,281	Apr. 17	1482	398	43	304
Reynolds, John, Chicago, assignor to W. B. Gilbert, Austin, Ill. Paper holder and cutter.	390,189	Sept. 25	2108	562	41	1502
Reynolds, John H., Troy, N. Y. Ventilator.	383,592	May 29	2560	677	43	1036
Reynolds, John H., Troy, and G. Gerdorn, West Troy, N. Y.; said Gerdorn assignor of one-fifth to said Reynolds. Car-brake.	393,722	Nov. 27	2272	596	45	1063

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Reynolds, John P., Jr. (See Mitchell and Reynolds.)						
Reynolds, John R. (See Smyth and Reynolds, assignors.)						
Reynolds, John R., assignor to Smyth Manufacturing Company, Hartford, Conn. Book- sewing machine	378,461	Feb. 28	1683	{ 441 442 }	42	847
Reynolds, John R., assignor to Smyth Manufacturing Company, Hartford, Conn. Clamp for loopers for sewing-machines	378,462	Feb. 28	1686	442	42	847
Reynolds, John W. (See Prescott, James E., assignor.)						
Reynolds, Lester, assignor of one-half to F. Riley, Yreka, Cal. Grain scale and register	376,044	Jan. 3	444	113	42	89
Reynolds, Nelson G., Bangor, Mich. Sleigh	380,819	Apr. 10	775	212	43	162
Reynolds, Stephen H. (See Hood and Reynolds.)						
Reynolds, Thomas. (See Schnarrenberger, Jacob H., assignor.)						
Reynolds, Walter S., assignor to himself, S. E. Bradt, and L. E. Tomblin, De Kalb, Ill. Piano-mover	383,190	May 22	1956	513	43	917
Reynolds, William C., and J. Smith, Columbus, Ohio. Manufacturing vehicle-dashers	380,134	Mar. 27	1903	508	42	1354
Reynolds, William W., Rutland, Vt. Scale-beam	383,912	June 5	100	30	43	1140
Rhea, J. S., et al. (See Lockett, John E., assignor.)						
Rhea, John W., et al. (See Lockett, John E., assignor.)						
Rheubottom, Frank C., Union City, Mich. Spring bed-bottom	392,755	Nov. 13	852	{ 218 219 }	45	765
Rhentan, Abram A., assignor to W. H. Hill, Worcester, Mass. Envelope-machine	385,524	July 3	288	74, 75	44	58
Rhentan, Abram A., assignor to W. H. Hill, Worcester, Mass. Envelope-machine	385,525	July 3	293	75	44	59
Rhind, Frank, assignor to E. Miller & Company, Meriden, Conn. Lamp-burner	379,813	Mar. 20	1409	375	42	1250
Rhind, Frank, assignor to E. Miller & Company, Meriden, Conn. Hanging lamp	379,908	Mar. 20	1569	414	42	1279
Rhind, Frank, assignor to E. Miller & Company, Meriden, Conn. Ornamented metallic sur- face	384,282	June 12	661	177	43	1257
Rhind, Frank, assignor to E. Miller & Company, Meriden, Conn. Central-draft lamp	386,658	July 24	1952	{ 515 516 }	44	406
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Lantern	382,831	May 15	1118	372	43	802
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Extension- lamp fixture	383,769	May 29	2829	745	43	1091
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Barometric reservoir	386,657	July 24	1951	515	44	406
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Central-draft lamp	388,445	Aug. 28	1931	516	44	964
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Suspension device for lamps	389,409	Sept. 11	928	{ 243 244 }	44	1256
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Lamp-extin- guisher	390,254	Oct. 2	82	23	45	19
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Hanging lamp	392,969	Nov. 13	1163	302	45	826
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Extension lamp-fixture. (Reissue)	10,967	Nov. 20	1704	{ 450 451 }	45	942
Rhind, Frank, assignor of one-half to E. Miller & Company, Meriden, Conn. Hanging lamp	394,882	Dec. 18	1780	462	45	1135
Rhind, Frank, Meriden, Conn., assignor of one-half to C. S. Upton, New York, N. Y. Central- draft lamp and burner	382,270	May 1	575	145	43	619
Rhind, Frank, Meriden, Conn., assignor of one-half to C. S. Upton, New York, N. Y. Ar- gand lamp	387,258	Aug. 7	88	22	44	589
Rhines, Foster P. (See Farwell and Rhines.)						
Rhoades, Alonzo E., Milford, assignor to Hopedale Machine Company, Hopedale, Mass. Roving-machine	386,352	July 17	1493	396	44	305
Rhoades, Thomas, Castle Dale, Utah Ter. Car brake and starter	391,818	Oct. 30	2209	623	45	481
Rhodes, Benjamin W. (See Bernard and Rhodes.)						
Rhodes, James B., Cheboygan, Mich. Saw-tooth swage	382,325	May 8	671	169	43	646
Rhodes, Solomon C., Bradford, Pa. System of bailing wells	378,619	Feb. 28	1903	504	42	892
Rhodes, Stephen E., assignor of one-half to E. G. Rawson, Saratoga Springs, N. Y. Steam- radiator	381,954	May 1	78	20	43	529
Rhodes, Stephen E., assignor of one-half to E. G. Rawson, Saratoga Springs, N. Y. Radiator	381,955	May 1	80	20	43	530
Rhodes, Vernon, Memphis, Tenn. Cultivator	381,169	Apr. 17	1325	354	43	274
Rhodes, William W., Lincoln, Nebr. Hen's nest	394,397	Dec. 11	989	259	45	1270
Rhone, Ezra W., Wilcox, Pa. Friction-pulley	386,719	July 24	2032	525	44	421
Rhule, Jacob, assignor of two-thirds to S. A. Cosgrove and C. W. Scovel, Pittsburg, Pa. Car-coupling	387,999	Aug. 14	1220	331	44	815
Rhyn, Henry, Philadelphia, Pa. Steam-engine or other motor	391,860	Oct. 30	2359	611	45	493
Ribault, Edouard G., Paris, France. Car-coupling	389,107	Sept. 4	463	119	44	1159
Ribble, George B. M., and C. C. Spencer, Cortland, N. Y. Ice-velocipede	387,814	Aug. 14	921	239	44	757
Ribble, George W., Harrisonburg, Va. Combination-tool	381,724	Apr. 24	2137	553	43	452
Riblett, Henry F., Mannington, W. Va. Hoof-parer	388,585	Aug. 28	2127	571	44	1002
Rice, Alva C., assignor to Stilwell & Bierce Manufacturing Company, Dayton, Ohio. Hori- zontal thrust-bearing	384,930	June 19	1623	421	43	1446
Rice, Bernard, New York, N. Y. Combined paper-knife and stamp-holder	379,415	Mar. 13	803	216	42	1125
Rice, Calvin B., East Oakland, Cal. Combined provision box and table	380,218	Mar. 27	2014	539	42	1376
Rice, David H., Brookline, Mass. Velocipede	388,446	Aug. 28	1932	516	44	964
Rice, David H., Brookline, assignor to Kitson Machine Company, Lowell, Mass. Machine for opening and cleaning cotton, &c	376,346	Jan. 10	878	230	42	177
Rice, David H., Brookline, assignor to J. Ferguson, Bridgewater, Mass. Steam-valve	380,661	Apr. 3	529	{ 146 147 }	43	106
Rice, David H., Brookline, Mass., assignor to Marlin Fire Arms Company, Hartford, Conn. Extracting mechanism for revolvers	385,009	June 26	1754	454	43	1482
Rice, E. Wilbur, Jr., Lynn, Mass. Reactive coil	381,420	Apr. 17	1682	451	43	345
Rice, E. Wilbur, Jr., Lynn, Mass. Rheostat	383,913	June 5	101	30	43	1140
Rice, Edwin W., Jr., Lynn, Mass. Brush for dynamos	394,999	Dec. 25	1980	511	45	1481
Rice, Fred, Shopiere, Wis. Wagon-brake	382,271	May 1	576	146	43	619
Rice, Gerrett S., deceased, Chicago, Ill.; S. Rice, administratrix. Music-chart	383,011	May 15	1687	439	43	854
Rice, Harvey D., Brooklyn, assignor to Abendroth & Root Manufacturing Company, New York, N. Y. Sectional steam-boiler	390,312	Oct. 2	153	43	45	34
Rice, Henry, assignor of one-half to F. P. Harder and J. R. Downer, Castleton, N. Y. Coff- in	379,814	Mar. 20	1410	{ 375 376 }	42	1250
Rice, Henry A., and S. Graham, Des Moines, Iowa. Automatic valve for steam-radiators	379,981	Mar. 27	1676	447	42	1310
Rice, Henry M., and J. O'Day, Allegheny, Pa. Vehicle-wheel	392,756	Nov. 13	853	219	45	766
Rice, James, Windsor, Ontario, Canada. Exercising-machine	393,265	Nov. 20	1586	415	45	918
Rice, James, assignor of one-half to B. T. De Bann and J. M. Talbot, Prairie Creek, Ind. Railway-rail crossing	384,717	June 19	1315	344	43	1387
Rice, John S. (See Edson, Jacob, assignor.)						
Rice, Lewis C., Denver, Colo. Dynamo-electric machine	379,284	Mar. 13	613	{ 167 168 }	42	1088



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Rice, Nathaniel B., Chicago, Ill. Evaporator .....	385,202	June 26	2043	522	43	1540
Rice, P. C. (See Rodin, Charles F., assignor.)						
Rice, Sarah, administratrix. (See Rice, Gerrett S.)						
Rice, Stephen L., Scranton, Pa. Combined coat and pantaloons supporter .....	381,888	Apr. 24	2389	624	43	499
Rice, Walter C., Providence, R. I. Steam-boiler .....	379,982	Mar. 27	1677	447	42	1310
Rice, William H., Addison, N. Y. Oak-lock .....	378,722	Feb. 28	2053	542	42	920
Rice, William H., Addison, N. Y. Fish-hook .....	379,080	Mar. 6	318	92	42	1025
Rich, Edwin S., New York, N. Y. Portable gas-stand .....	396,706	Oct. 9	705	187	45	148
Rich, Elisha B., Boston, Mass. Saw-feeding device for saw-sharpening machines .....	392,225	Nov. 6	71	17, 18	45	608
Richards, David G., Cleveland, Ohio. Window-clearing apparatus .....	387,919	Aug. 14	1095	289	44	790
Richards, Francis H., Springfield, Mass., assignor to Mason Cotton Harvester Company, of South Carolina. Feeding mechanism for punching-presses .....	378,805	Feb. 28	2178	579 580 581	42	943
Richards, Francis H., Hartford, assignor to American Button Fastener Company, New Britain, Conn. Button-setting machine .....	381,030	Apr. 10	1099	292 293	43	222
Richards, Francis H., Hartford, assignor to American Button Fastener Company, New Britain, Conn. Button-setting machine .....	381,031	Apr. 10	1103	294 295	43	222
Richards, Francis H., Hartford, Conn., assignor to D. W. Dodson, Wilkes-Barre, Pa. Gearing .....	390,097	Sept. 25	1975	526	44	1475
Richards, Francis H., assignor of one-half to Pratt & Whitney Company, Hartford, Conn. Turret-lock .....	390,190	Sept. 25	2109	562	44	1502
Richards, Francis H., assignor to Pratt & Whitney Company, Hartford, Conn. Center-drilling machine .....	390,520	Oct. 2	455	118	45	92
Richards, Frank H., Troy, N. Y. Centrifugal machine .....	384,718	June 19	1316	344	43	1387
Richards, Harry W., Eden, Fla. Auger .....	387,448	Aug. 7	373	97	44	646
Richards, Ivan W., Colora, Md. Lawn-mower .....	384,787	June 19	1411	370	43	1407
Richards, James H., and E. Huber, Marion, Ohio. Tube-expander .....	376,485	Jan. 17	1074	281	42	221
Richards, John, assignor of two-thirds to Z. J. Reese and J. D. Sinclair, Fort Worth, Tex. Churn .....	382,387	May 8	770	195	43	665
Richards, Lovell A., Grayson, Cal. Disk harrow .....	382,731	May 15	1287	337	43	775
Richards, Marcus C., assignor to himself and Wilcox Manufacturing Company, Aurora, Ill. Rail-support for door-hangers .....	394,611	Dec. 18	1327	348	45	1346
Richards, Nowell H., Richmond, assignor of one-third to G. W. Selby, Jr., Melbourne, Victoria. Grip and brake-gear of cable tram-cars .....	387,920	Aug. 14	1095	289 290	44	790
Richards, William G., Brooklyn, N. Y. Car-wheel .....	387,813	Aug. 14	922	239	44	756
Richards, William G., Brooklyn, assignor to Peckham Car Wheel Company, New York, N. Y. Car-wheel .....	383,989	June 5	219	65	43	1163
Richardson, Arthur S., Reading, Mass. Wax-thread sewing-machine .....	377,466	Feb. 7	179	42	42	530
Richardson, Aubrey, Chillicothe, assignor of one-half to H. W. Fischbach, Ross, Ohio. Tension device for use in wire-fence making .....	390,617	Oct. 2	579	154	45	116
Richardson, Benjamin F., Cincinnati, Ohio. Vehicle-axle .....	382,902	May 15	1516	397	43	823
Richardson, Benjamin P., Boston, Mass. Type-writer cabinet .....	383,492	May 29	2423	643	43	1009
Richardson, Dwight S., Brooklyn, N. Y. Combined hot-air and hot-water heater .....	390,098	Sept. 25	1976	526	44	1475
Richardson, E. Jennie H., Detroit, Mich. Device for sprinkling lawns .....	385,069	June 26	1856	474	43	1502
Richardson, Frederick. (See Lewis, Russell H., assignor.)						
Richardson, George, Menardville, Tex. Sheep-shearing machine .....	384,545	June 12	1054	275	43	1329
Richardson, George, Boston, Mass., assignor to American Conduit and Construction Company, Portland, Me. Machine for making conduits .....	392,069	Oct. 30	2663	724 725	45	552
Richardson, George L., Brunswick, Me. Beating for turbine water-wheels .....	391,918	Oct. 30	2443	660	45	910
Richardson, George W., assignor of one-half to J. H. Shepard, Chicago, Ill. Dump-wagon .....	377,331	Jan. 31	2334	677	42	476
Richardson, Henry D., assignor to Wallace & Sons, Ansonia, Conn. Hanging lamp .....	389,717	Sept. 18	1404	367	44	1353
Richardson, John, St. Mary's, Ga. Propeller-shaft bearing .....	378,975	Mar. 6	157	45	42	997
Richardson, John E., assignor of one-half to F. P. Woodbury, Salem, N. H. Cutting-die .....	391,558	Oct. 23	1927	519	45	397
Richardson, John P., Cambridge, assignor to Mason & Hamlin Organ and Piano Company, Boston, Mass. Piano-forte .....	388,308	Aug. 21	1729	462	44	920
Richardson, John P., Cambridge, assignor to Mason & Hamlin Organ and Piano Company, Boston, Mass. Piano-forte .....	388,720	Aug. 28	2321	621	44	1039
Richardson, John T., Harrisburg, assignor of one-half to A. H. Ege, Mechanicsburg, Pa. Spring railway-frog .....	390,399	Oct. 2	287	76	45	61
Richardson, John T., Harrisburg, Pa., and A. Rapp, Holland, N. J., assignors of one-third to A. H. Ege, Mechanicsburg, Pa. Rolling-mill .....	383,990	June 5	220	66	43	1163
Richardson, Joseph, North Shields, county of Northumberland, England. Leak-stopper for ships, &c. .....	385,572	July 3	362	94	44	72
Richardson, Leonard, et al. (See Leland, Edwin A., assignor.)						
Richardson Manufacturing Company. (See Parker, Gardner R., assignor.)						
Richardson, Nathan, Little Falls, Minn. Bilge-pump .....	394,725	Dec. 18	1508	394	45	1382
Richardson, Stonewall J. (See Dwyer, John, assignor.)						
Richardson, William S. (See Shorey and Richardson.)						
Richardson, William S., Boston, Mass. Fastening for gloves .....	383,069	May 15	1781	460	43	873
Richardson, William S., Boston, Mass. Glove-fastening .....	383,070	May 15	1782	460	43	873
Richardson, William S., Boston, Mass. Fastening for gloves .....	383,071	May 15	1783	461	43	873
Richardson, William S., Boston, Mass. Fastening for gloves .....	383,072	May 15	1784	461	43	873
Richardson, William S., Boston, Mass. Glove-fastening .....	383,073	May 15	1785	461	43	873
Richardson, William S., Boston, Mass. Glove-fastening .....	383,074	May 15	1786	462	43	873
Richardson, William S., Boston, Mass., assignor to Ball and Socket Fastener Company, Nashua, N. H. Fastening for gloves .....	382,904	May 15	1519	397 398	43	823
Richardson, William S., Boston, Mass., assignor to Ball and Socket Fastener Company, Nashua, N. H. Fastening for gloves .....	382,905	May 15	1520	398	43	823
Richardson, William S., Boston, Mass., assignor to Ball and Socket Fastener Company, Nashua, N. H. Glove-fastening .....	390,400	Oct. 2	289	76	45	62
Richardson, William S., Boston, and J. B. Chase, Newton, Mass., assignors to Ball and Socket Fastener Company, Nashua, N. H. Glove-fastening .....	382,903	May 15	1518	397	43	823
Richardson, Winfield S., Woodbury, N. J., and E. Ridgway; said Ridgway assignor to R. K. Ridgway, Philadelphia, Pa. Cigar-cutter .....	389,762	Sept. 18	1463	383	44	1365
Richer, Rensselaer B., and O. A. Adams, Lakeview, Mich. Saw-swage .....	388,221	Aug. 21	1586	422	44	891
Richford, James H., assignor of two-thirds to F. and C. T. Luthy, Peoria, Ill. Rotary grain-meter .....	394,938	Dec. 18	1879	485 486	45	1452
Richie, William F. (See Harrison, Arthur, assignor.)						
Richmond, Alexander L. (See Meloon and Whiting, assignors.)						
Richmond, Cassius M., New York, N. Y., assignor to International Tooth Crown Company, of New York. Removable bridge for artificial dentures .....	390,521	Oct. 2	457	118	45	93
Richmond, Cassius M., New York, N. Y., assignor to International Tooth Crown Company, of New York. Artificial tooth-crown .....	392,226	Nov. 6	73	18	45	608

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Richmond City Mill Works. (See Mawhood, Jonathan D., assignor.)						
Richmond, George G. (See Mauser and Richmond.)						
Richmond, George S. (See Lister and Richmond.)						
Richmond, Gilbert M., Chicago, Ill., assignor, by mesne assignments, to L. A. Watson, Ashtabula, Ohio. Feather duster	385,070	June 26	1857	474	43	1502
Richmond, Howard, assignor to Cop Dyeing Company, Providence, R. I. Dyeing and bleaching apparatus	387,540	Aug. 7	507	{ 133 134 }	{ 44 }	671
Richmond, Jewett M., et al. (See Britton, William H., assignor.)						
Richmond Locomotive and Machine Works. (See Blasdale, John, assignor.)						
Richter, Adolph H. (See Distelhorst, John, assignor.)						
Richter, Aug. F. (See Hambruch, Heinrich F., assignor.)						
Richter, Carl T. H., East Dedham, Mass. Combined seat, easel, and sunshade	375,953	Jan. 3	306	82	42	63
Richter, Gustav. (See Majert and Richter.)						
Richter, Wilhelm, Eintrachthütte, near Schwientochlowitz, and R. Lorenz, Radzionkan, near Beuthen, Prussia, Germany. Rotary and oscillating apparatus for distilling metallic ores	380,135 380,457	Mar. 27 Apr. 3	1904 224	508 61	42 43	1354 46
Richwine, Harry, Dora, Ind. Fence						
Rickard, Charles S. (See Robinson and Rickard.)						
Rickard, Daniel H., Washington, D. C. Draft-equalizer	382,326	May 8	671	169	43	646
Rickard, Franklin A., and F. T. Wright, assignors to F. Wright and B. F. Rolfe, Batavia, Mich. Fence-machine	379,541 379,769	Mar. 13 Jan. 3	987 66	265 20	42 42	1160 17
Rickard, George S., Columbus, Ohio. Lifting-jack						
Rickard, William E. (See Hollick and Rickard.)						
Rickard, William E., London, county of Middlesex, England. Tree-felling machine	389,506	Sept. 18	1216	318	44	1316
Rickards, Garret V. S. and V. F., and H. Guyer, Keokuk, Iowa. Wire-fence web	386,720	July 24	2035	535	44	421
Rickards, Garret V. S. and V. F., and H. Guyer, Keokuk, Iowa. Wire-fence web	386,721	July 24	2035	535	44	421
Rickards, Vincent F. (See Rickards and Guyer.)						
Rickards, William T., et al. (See Jewell, Crews, assignor.)						
Rickenbacher, Paul P., assignor to National Brake-Block Company, Washington, D. C. Brake-block	392,884	Nov. 13	1041	269	45	804
Ricker, Wentworth G., Rochester, N. Y. Hay-sling	392,600	Nov. 13	755	192	45	745
Ricketson, James M., New Bedford, Mass. Grubbing-pinchers	381,581	Apr. 24	1926	507	43	410
Ricks, Hiram L., Eureka, Cal. Preserving submerged timbers	380,820	Apr. 10	776	212	43	163
Rider, Ebenezer W., Racine, Wis. Oil-can	377,639	Feb. 7	432	110	42	577
Rider, Ebenezer W., Racine, Wis. Feed-cutter	378,112	Feb. 21	1151	{ 300 301 }	{ 42 }	739
Rider, John N. (See Hill and Rider.)						
Rider, John T., assignor of one-half to C. H. Duncan, South Oil City, Pa. Countersinking-screw	388,000	Aug. 14	1221	331	44	816
Rider, Thomas J., assignor of one-half to C. H. De Lamater, New York, N. Y. Hot-air engine	393,663	Nov. 27	2191	574	45	1047
Rider, Thomas J., assignor of one-half to C. H. De Lamater, G. H. Robinson, and W. De Lamater, New York, N. Y. Hot-air engine	393,723	Nov. 27	2273	596	45	1063
Ridge, Isaac M. (See Snyder, Charles L., assignor.)						
Ridgely, Charles T., assignor of one-half to M. A. Smith, Springfield, Ohio. Wall-paper cutter	389,901	Sept. 25	1687	445	44	1416
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Heating stove or furnace	389,902	Sept. 25	1688	{ 445 446 }	{ 44 }	1416
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Heating stove or furnace	389,903	Sept. 25	1690	446	44	1417
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Stove or furnace	389,904	Sept. 25	1691	{ 446 447 }	{ 44 }	1417
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Heating stove or furnace	391,274	Oct. 16	1512	408	45	312
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Heating stove or furnace	391,426	Oct. 23	1748	{ 467 468 }	{ 45 }	358
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Heating stove or furnace	391,427	Oct. 23	1749	468	45	358
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Heating stove or furnace	391,428	Oct. 23	1750	{ 468 469 }	{ 45 }	359
Ridgway, Charles L., Boston, Mass., assignor to Ridgway Furnace and Stove Company, Nashua, N. H. Stove or furnace	391,559	Oct. 23	1928	519	45	397
Ridgway, Eli. (See Richardson and Ridgway.)						
Ridgway Furnace and Stove Company. (See Ridgway, Charles L., assignor.)						
Ridgway Furnace and Stove Company. (See Stevens, Edward G. and A. B., assignors.)						
Ridgway, Rebecca K. (See Richardson and Ridgway, assignors.)						
Riding, William, assignor of two-thirds to A. P. Walters and J. L. Burkert, Norristown, Pa. Railway-gate	390,618	Oct. 2	579	154	45	117
Ridley, Henry A., assignor to H. A. Ridley & Sons, Newport, Ark. Combined punching and shearing machine	392,302	Nov. 6	275	70	45	647
Ridley & Sons, H. A. (See Ridley, Henry A., assignor.)						
Riebold, John, Troy, Ill. Land-roller	386,220	July 17	1319	349	44	272
Riedel, Emil H., New York, N. Y. Photographic dark-chamber	380,136	Mar. 27	1905	508	42	1355
Riedel, Gustav A., Cedar, Tex., assignor of one-half to F. B. Forster, New York, N. Y. Boiler-feeder regulator	379,776	Mar. 20	1339	358	42	1236
Riedel, Heinrich F., Dresden, Saxony, Germany. Manufacturing cigarettes with tobacco wrappers	389,975	Sept. 25	1790	474	44	1437
Riedel, Heinrich F., Dresden, Saxony, Germany. Cigarette	389,976	Sept. 25	1791	475	44	1437
Riedel, John H., Lynn, assignor to C. F. Brown, trustee, Reading, Mass. Abrading-pad	384,076	June 5	347	98	43	1187
Riedler, Henry B., Apple Creek, Ohio. Vise	395,079	Dec. 25	2092	542	45	1504
Riedler, Alvis, Aachen, Prussia, Germany. Valve-gear	395,174	Dec. 25	2253	579	45	1532
Rieffel, John P., New York, N. Y. Cover for vessels	380,137	Mar. 27	1906	500	42	1355
Riegel, Samuel D., Thomasville, Ga. Pattern for pickets and balusters	386,034	July 10	1026	272	44	210
Riegel, Samuel D., Thomasville, Ga. Machine for sawing fence-pickets	386,035	July 10	1027	273	44	210
Rieger, Reinhard. (See Geyer, Phillip, assignor.)						
Riehoen, Charles, Chicago, Ill. Potato-digger	391,078	Oct. 16	1268	337	45	260
Ries, Elias E., Baltimore, Md. Traction-increasing system for electric railways	379,909	Mar. 20	1570	414	42	1279
Ries, Elias E., Baltimore, Md. Induction-coil	380,138	Mar. 27	1907	509	42	1355
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Apparatus for increasing the traction of vehicles and motors	379,815	Mar. 20	1412	376	42	1250
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Dynamo-electric generator	381,421	Apr. 17	1685	{ 452 453 }	{ 43 }	345
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Heating by electricity	381,815	Apr. 24	2260	{ 590 591 }	{ 43 }	475

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Electric heating apparatus for railway-cars	381,816	Apr. 21	2261	591	43	475
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Electric heating system	381,817	Apr. 21	2271	592	43	476
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Electro-chemical heating	381,818	Apr. 21	2275	593	43	477
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Heating railway-cars by electro-chemical means	381,819	Apr. 21	2280	594	43	477
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Driving mechanism for electric-railway cars	381,886	July 10	1098	594	44	224
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Combined electric railway and wire-conduit	386,087	July 10	1101	595	41	925
Ries, Elias E., assignor of one-half to A. H. Henderson, Baltimore, Md. Welding by electricity	386,088	July 10	1105	596	44	925
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Apparatus for removing ice from railway-tracks	390,619	Oct. 2	580	154	45	117
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Electro-dynamic motor	390,901	Oct. 9	982	358	45	198
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Electro-dynamic machine	390,905	Oct. 9	985	359	45	199
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Multiple-current electric generator	390,906	Oct. 9	989	359	45	200
Ries, Elias E., assignor to Ries & Henderson, Baltimore, Md. Overhead conductor for electric railways	392,757	Nov. 13	854	219	45	766
Ries, Elias E., assignor, by mesne assignments, to himself and A. H. Henderson, Baltimore, Md. Electric railway	386,085	July 10	1095	294	44	224
Ries, Elias E., and A. H. Henderson, Baltimore, Md. Electro-magnetic traction-increasing apparatus	379,816	Mar. 20	1415	376	42	1251
Ries, Elias E., and A. H. Henderson, Baltimore, Md. Underground conduit and grip for electric railways	383,770	May 29	2833	746	43	1091
Ries, George A., Poplar Bluff, Mo. Cloth cutting machine	381,644	Apr. 24	2016	529	43	428
Ries & Henderson. (See Ries, Elias E., assignor.)						
Rieth, Peter, assignor to L. Wolf Manufacturing Company, Chicago, Ill. Core-arbor for casting curved pipe	381,645	Apr. 24	2017	529	43	428
Rietmann, George W., Denver, Colo. Dynamo-electric machine	394,883	Dec. 18	1782	463	45	1435
Rietschy, Charles T., assignor to J. I. Barnhurst, Philadelphia, Pa. Machine for attaching forks to umbrella-stretchers	383,075	May 15	1786	462	43	874
Riexinger, George, Buffalo, N. Y. Child's carriage	382,491	May 8	929	235	43	695
Rife, Obed C., Indianapolis, Ind. Window-guard	379,332	Mar. 13	681	184	42	1100
Riddle, Stephen R., Foley, Mo. Combined wagon bed and brake	378,337	Feb. 21	1497	391	42	802
Rigault, Alexandre. (See Girard and Rigault.)						
Rigby, John S., assignor of one-half to A. Macdonald, Liverpool, county of Lancaster, England. Manufacture of cement from lime-mud	394,663	Dec. 18	1412		45	1361
Rigby, Robert M., Kansas City, Mo. Combined book and index	383,543	May 29	2506	661	43	1025
Riggs, Miles, New York, N. Y. Eyeglass-holder	392,363	Nov. 6	276	71	45	647
Riggs, William A., Jr., New Orleans, La. Cistern-clamp fastener	381,289	Apr. 17	1478	399	43	304
Rightmire, Harry C., assignor of one-half to T. A. Pearce, Philadelphia, Pa. Reversing mechanism for knitting-machines	385,322	June 26	2233	572	43	1577
Rightmire, Harry C., assignor of one-half to T. A. Pearce, Philadelphia, Pa. Circular-knitting machine	388,721	Aug. 28	2322	625	44	1039
Rightmyer, Frank, Springfield, Ohio. Shifting seat for vehicles	389,597	Sept. 18	1218	319	44	1317
Riker, Andrew L., New York, N. Y. Sectional steam-boiler	379,725	Mar. 20	1269	339	42	1223
Riker, Andrew L., New York, N. Y. Electrical indicator	381,422	Apr. 17	1609	453	43	346
Riker, Andrew L., New York, N. Y. Dynamo-electric machine or motor	384,077	June 5	348	98	43	1187
Riker, Andrew L., New York, N. Y. Dynamo-electric machine	392,011	Sept. 4	294	78, 79	44	1129
Riker, Andrew L., New York, N. Y. Electric motor and dynamo	393,266	Nov. 20	1587	416	45	918
Riley, Edward, Milwaukee, Wis., assignor of one-half to Milwaukee Harvester Company. Molder's snap-blank	385,203	June 26	2044	523	43	1540
Riley, Francis. (See Reynolds, Lester, assignor.)						
Riley, George N. (See McCleary, William W., assignor.)						
Riley, James M., Troy, N. Y. Covering or jacket for steam boilers, &c.	394,398	Dec. 11	990	259	45	1270
Riley, John E., New York, N. Y. Elevator-signal	388,918	Sept. 4	168	45	44	1104
Riley, John M., Newark, N. J. Fastening for dog-collars	394,506	Dec. 11	1134	294	45	1296
Ring, John, St. Louis, Mo. Ammonia system for cooling rooms, &c.	388,722	Aug. 28	2326	626	44	1039
Ring, Michael B., Norvich, and J. I. Lavoie, Taftville, Conn. Vehicle-gear	377,211	Jan. 31	2151	568	42	413
Ringen, John, St. Louis, Mo. Stopper for vessels	377,275	Jan. 31	2249	594	42	461
Ringle, William H., Van Buren, Ohio. Gate	385,479	July 3	214	56	44	43
Rings, Julius, New York, N. Y. Curtain-pole	380,932	Apr. 10	951	252	43	194
Rink, Richard L., assignor of two-thirds to M. E. Sandford and H. Wagner, New York, N. Y. Combination pool and billiard table	386,089	July 10	1108	296	44	226
Rinker, Clinton P., assignor of one-half to D. Griggs, McCook, Nebr. Pump	391,079	Oct. 16	1269	337	45	260
Rinker, Robert S., Rinkerton, Va. Hoe	378,723	Feb. 28	2054	542	42	920
Rinman, G. Oscar, and J. Zimmerman, Cincinnati, Ohio; said Rinman assignor to said Zimmerman. Meat-cutting machine	382,192	May 1	457	119	43	598
Rinninsland, Ludwig, Maysville, Ky. Thill-coupling	377,814	Feb. 14	731	185	42	649
Ripley, Daniel C., Pittsburg, Pa. Condiment-mill	386,732	July 24	2036	536	44	422
Ripley, Daniel C., Pittsburg, Pa. Decorating glassware	394,612	Dec. 18	1328	318	45	1346
Ripley Howland Manufacturing Company. (See Ripley, Nathaniel L., assignor.)						
Ripley, James L., et al. (See Langguth, Charles, assignor.)						
Ripley, James R., Memphis, Tenn. Circular sawing machine	384,176	June 5	497	136	43	1217
Ripley, Nathaniel L., Newton, assignor to Ripley Howland Manufacturing Company, Boston, Mass. Crown-setting for jewelry	387,449	Aug. 7	374	97	44	616
Ripley, Nathaniel L., Newton, assignor to Ripley Howland Manufacturing Company, Boston, Mass. Jewel-setting	390,620	Oct. 2	584	155	45	117
Ripley, Royal H., Minneapolis, Minn. Stock-car	377,959	Feb. 14	934	243	42	690
Ripley, Royal H., Minneapolis, Minn. Stock-car	384,931	June 19	1624	422	43	1446
Rippon, William F., Craunston, R. I. Seat or couch spring	386,489	July 31	2263	596	44	471
Ripston, John D., assignor to E. G. Kelly, Toronto, Ontario, Canada. Collin-lid	387,921	Aug. 14	1097	290	41	790
Risdon, John R., assignor of one-half to F. H. Hough, Washington, D. C. Composing-stick	393,267	Nov. 20	1590	417	45	919
Riser, Karl, and P. Bardonner, Cleveland, Ohio; said Riser assignor to said Bardonner. Combination-table	376,415	Jan. 10	967	252	42	193
Risley, E. Eugene. (See Risley, William S. and E. E.)						
Risley, William S. and E. E., Richfield Springs, N. Y. Hay-carrier	376,109	Jan. 10	535	113	42	114
Risser, John C., Paris, Ill. Fanning-mill	389,977	Sept. 25	1792	475	44	1137

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Rissone, Giovanni B. (See Capra and Rissone.)						
Ritchel, Charles F., Bridgeport, Conn., assignor to J. A. Burke, New York County, N. Y. Lawn-mower.	382,388	May 8	771	196	43	666
Ritchie, Edward, <i>et al.</i> (See Buzzell, William R., assignor.)						
Ritchie, Foster, assignor to Railway Telegraph Supply Company, Chicago, Ill. Annunciator.	392,970	Nov. 13	1165	302	45	827
Ritchie, James, Litchfield, Ill. Bundle-dropper for grain-binders.	390,401	Oct. 2	290	76	45	62
Ritchie, John. (See Miller and Ritchie.)						
Ritchie, Matthew L., assignor to Eagle Tube Company, New York, N. Y. Tube.	378,976	Mar. 6	158	46	42	997
Ritchie, Matthew L., assignor to Eagle Tube Company, New York, N. Y. Furnace.	387,317	Aug. 7	179	47	44	605
Rites, Francis M. (See Westinghouse and Rites.)						
Rites, Francis M., assignor to Westinghouse Machine Company, Pittsburg, Pa. Steam-engine.	383,322	May 22	2151	568	43	953
Rittenhouse, Silas B. (See Swank, Israel M., assignor.)						
Rittenhouse, Silas B., Liberty Mills, Ind. Hand-seeder.	386,497	July 24	1716	454	44	362
Ritter, Jacob S., assignor of one-half to A. Bishop, Medina, Ohio. Broadcast seed-sower.	391,861	Oct. 30	2362	641	45	494
Ritter, John L., Milnes, Va. Egg crate and tray.	382,622	May 8	1132	292	43	736
Ritter, Louis, St. Louis, Mo. Water-proof device for cellars or basements.	391,862	Oct. 30	2363	642	45	494
Ritter, Oliver C., North Springfield, Mo. Roller-mill.	389,247	Sept. 11	692	176	44	1212
Ritter, Wilhelm, Altona, Prussia, Germany. Jointing-machine for barrel-staves.	383,249	May 22	2043	536	43	934
Ritterhouse, Ernest J., Brightwood, D. C. Clothes-drier.	391,191	Oct. 16	1423	380	45	290
Ritty, Sebastian. (See Thomas and Ritty.)						
Ritty, Sebastian, Dayton, Ohio. Harrow.	377,213	Jan. 31	2155	569	42	444
Ritz, Charles, Rochester, N. Y. Plumb-level.	379,662	Mar. 20	1173	311	42	1203
Ritzenfeld, Emil and G. H., Berlin, Germany. Exhauster.	393,857	Dec. 4	182	49, 50	45	1106
Ritzenfeld, Gustav H. (See Ritzenfeld, Emil and G. H.)						
Rivard, Peter E., <i>et al.</i> (See Hand, Ekins, assignor.)						
Rivière, Victor, Newark, N. J. Tanned skin.	379,726	Mar. 20	1271		42	1223
Rivers, Lewis, assignor of one-half to A. Crehman, Worcester, Mass. Blind-finishing machine.	388,447	Aug. 28	1934	517	44	965
Rivers, Thomas L., Newark, N. J. Handle.	381,646	Apr. 24	2019	530	43	428
Riverside Iron Works. (See Bray, Thomas J., assignor.)						
Rives, John T., Wharton, Tex. Insect-destroyer.	376,784	Jan. 24	1544	406	42	319
Rivett, Edward, Boston, Mass. Counter-shaft bracket for watch-makers' lathes.	375,770	Jan. 3	67	20	42	17
Rivett, Edward, Boston, Mass. Clamping-jaw for watch-makers' lathes.	375,771	Jan. 3	68	21	42	17
Rivett, Edward, Boston, Mass. Tool-rest for hand-lathes.	389,012	Sept. 4	2966	79	44	1129
Rivett, Edward, Boston, Mass. Gear-shaping attachment for watch-maker's lathes.	389,905	Sept. 25	1692	447	44	1417
Riviere, Richard A. (See Johnston, Lyssander, assignor.)						
Rix, Benjamin F., Kalamazoo, Mich. Road-cart.	391,863	Oct. 30	2365	642	45	494
Rix, Benjamin F., assignor to R. A. Stone, Kalamazoo, Mich. Two-wheeled vehicle.	376,486	Jan. 17	1075	282	42	221
Rix, Benjamin F., assignor to R. A. Stone, Kalamazoo, Mich. Vehicle-pole.	393,787	Dec. 4	77	21	45	1088
Roach, James P., Vicksburg, Miss. Machine for distributing poison on worm-infested plants.	392,289	Nov. 6	162	42	45	624
Roake, John S., Brooklyn, N. Y. Steam-boiler cleaner.	389,718	Sept. 18	1405	367	44	1353
Robards, Edward, Stilesville, Ind. Land-measuring machine.	382,438	May 8	837	215	43	679
Robb, Charles L., Bellefontaine, Ohio. Foot-rest and stool for shoe-merchants.	375,954	Jan. 3	308	82	42	64
Robb, Frank, St. Johns, Mich. Cross-head for steam-engines.	389,978	Sept. 25	1793	475	44	1437
Robb, James, assignor to W. M. Clafin, Philadelphia, Pa. Shoe.	391,485	Oct. 23	1830	490	45	375
Robb, James T., assignor to Bergmann & Company, New York, N. Y. Insulating-joint.	382,272	May 1	577	146	43	620
Robb, Lucian B., Cincinnati, Ohio. Dry closet.	376,550	Jan. 17	1167	307	42	238
Robb, Lucian B., Cincinnati, Ohio. Dry closet.	384,932	June 19	1625	422	43	1446
Robb, William D., Abilene, Kans. Combined step and arm for platform attachments for ladders.	387,259	Aug. 7	90	22	44	589
Robbins, Albert F., Orange, Mass. Mainspring-winder.	394,507	Dec. 11	1135	294	45	1296
Robbins, Fabius. (See Doub and Robbins.)						
Robbins, George M., assignor of two-thirds to H. F. Arms and C. C. Bosher, Worcester, Mass. Car-coupling.	383,991	June 5	222	66	43	1164
Robbins, George M., assignor of two-thirds to E. Converse and A. T. Matthews, Worcester, Mass. Car-coupling.	393,393	Nov. 27	1778	470	45	964
Robbins, Henry R., assignor of one-half to C. M. Benninghaus, Baltimore, Md. Apparatus for treating cereals.	378,806	Feb. 28	2180	581	42	944
Robbins, Ira, Camden, N. J., assignor of one-half to W. Nunneville, Philadelphia, Pa. Electric railway.	392,971	Nov. 13	1166	303	45	827
Robbins, Isaiah, Jr. (See Shaw and Buxton, assignors.)						
Robbins, Roldin S. (See Broad, Alphonso H., assignor.)						
Robbins, Roldin S., San Francisco, and A. H. Broad, Berkeley, Cal. Wall-protector.	389,979	Sept. 25	1794	475	44	1437
Robert, Alfred H., assignor to C. Huguenin-Thiébaud & Fils, Ponts Martel, Switzerland. Non-magnetic alloy.	388,152	Aug. 21	1493		44	873
Robert, Gustave L., Stenay, Menese, France, assignor to J. W. Bookwalter, Springfield, Ohio. Converting crude iron into malleable iron or steel.	395,175	Dec. 25	2255	579	45	1532
Roberts, Albert E. (See Baker and Hnyck, assignors.)						
Roberts, Albert E., assignor of one-half to B. Cortrite, Norwalk, Ohio. Rake-tooth.	387,815	Aug. 14	925	239	44	757
Roberts, Benjamin, Indianapolis, Ind. Smoke-condenser.	382,665	May 8	1198	311	43	749
Roberts, Benjamin, Indianapolis, Ind. Smoke-condenser.	386,498	July 24	1718	454	44	362
Roberts-Brevoort Electric Company. (See Brevoort and Roberts, assignors.)						
Roberts-Brevoort Electric Company. (See Roberts, Isaiah L., assignor.)						
Roberts-Brevoort Electric Company. (See Roberts and Brevoort, assignors.)						
Roberts, Charles E., Chicago, Ill. Emery grinding-machine.	376,451	Jan. 17	1032	270	42	213
Roberts, Charles E., Chicago, Ill. Emery-belt grinding-machine.	377,212	Jan. 31	2152	568 } 569 }	42	444
Roberts, Cyrus, Three Rivers, Mich. Potato-digger.	384,641	June 19	1197	317	43	1365
Roberts, Cyrus, Three Rivers, Mich. Potato-digger.	385,071	June 26	1859	475	43	1502
Roberts, David M., Chicago, Ill. Machine for forming and polishing door-panels.	384,788	June 19	1412	370 } 371 }	43	1407
Roberts, De Witt C., assignor of five-ninths to C. T. Yerkes, Chicago, Ill. Device for lighting and heating cars by electricity.	385,774	July 10	661	173 } 174 }	44	137
Roberts, Edward F., Rochester, assignor of one-half to T. R. Sully, Buffalo, N. Y. System for heating and ventilating cars.	394,508	Dec. 11	1137	294 } 295 }	45	1296
Roberts, Frank, <i>et al.</i> (See Leahy, Edward C., assignor.)						
Roberts, Frank E., assignor of one-half to P. M. Kroeck, Austintown, Ohio. Boot-frame for vehicles.	380,933	Apr. 10	952	253	43	194
Roberts, Fred A., Milan, Ohio. Device for stringing fish.	389,598	Sept. 18	1220	319	44	1317
Roberts, George C., Chicago, Ill., assignor to Troy Laundry Machinery Company, Troy, N. Y. Centrifugal machine.	386,788	July 24	2135	561	44	439
Roberts, George S., Meredith, N. H. Lamp-supporting device for upright pianos.	376,452	Jan. 17	1034	271	42	213

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Roberts, Henry, Pittsburg, Pa. Reel for wire-rod mills	382,492	May 8	930	236	43	695
Roberts, Henry, Pittsburg, Pa. Wire-rod mill	392,364	Nov. 6	277	71	45	647
Roberts, Henry, Pittsburg, Pa. Rod-mill	392,365	Nov. 6	279	71	45	648
Roberts, Henry, assignor to himself, G. T. Oliver, and A. J. Day, Pittsburg, Pa. Guide for wire-rod mills	381,582	Apr. 24	1927	508	43	410
Roberts, Henry P., Jamestown, N. Y. Wrench	376,991	Jan. 24	1834	483	42	373
Roberts, Humphrey O., Minneapolis, Minn. Riveting-machine	375,772	Jan. 3	69	21	42	18
Roberts, Humphrey O., Minneapolis, Minn. Grain-adjuster for binders	385,375	July 3	53	16	44	13
Roberts, Isaiah L. (See Brevoort and Roberts.)						
Roberts, Isaiah L., Brooklyn, N. Y., assignor to Roberts-Brevoort Electric Company, (limited,) of New York. Electric battery	380,090	July 10	1110	297	41	296
Roberts, Isaiah L., Brooklyn, assignor to Roberts-Brevoort Electric Company, (limited,) New York, N. Y. Automatic electric switch	392,167	Oct. 30	2828	766	45	584
Roberts, Isaiah L., Brooklyn, assignor to Roberts-Brevoort Electric Company, (limited,) New York, N. Y. Separating-partition for galvanic batteries	394,613	Dec. 18	1329	348	45	1346
Roberts, Isaiah L., Brooklyn, assignor to Roberts-Brevoort Electric Company, (limited,) New York, N. Y. Treating diaphragms and cups for use in electric batteries	394,615	Dec. 18	1332		45	1347
Roberts, Isaiah L., Brooklyn, assignor to Roberts-Brevoort Electric Company, (limited,) New York, N. Y. Diaphragm for galvanic batteries	394,616	Dec. 18	1333		45	1347
Roberts, Isaiah L., Brooklyn, N. Y., assignor of one-half to E. Tweedy, Danbury, Conn. Device for winding clocks by the variations of temperature	386,557	July 24	1816	480	44	379
Roberts, Isaiah L., and H. L. Brevoort, assignors to Roberts-Brevoort Electric Company, (limited,) New York, N. Y. Separating-diaphragm for galvanic batteries	394,614	Dec. 18	1330	349	45	1346
Roberts, Isaiah L., and H. L. Brevoort, Brooklyn, assignors to Roberts-Brevoort Electric Company, (limited,) New York, N. Y. Diaphragm for galvanic batteries	394,617	Dec. 18	1335		45	1347
Roberts, John P. (See Anderson and Roberts.)						
Roberts, John W., Clarinda, Iowa. Wire-fence machine	387,108	July 31	2628	{ 691 692 }	44	542
Roberts, John W., Cleveland, Ohio, assignor to E. Norton, Maywood, and O. W. Norton, Chicago, Ill. Can-delivery device for soldering-machines	385,775	July 10	664	174	44	137
Roberts, Joseph E. (See Morell, James F., assignor.)						
Roberts, Levi H., and C. E. Sanford, assignors to E. C. Atkins & Company, Indianapolis, Ind. Bucksaw-frame	395,294	Dec. 25	2438	627	45	1566
Roberts, Lorenzo D. (See Tolman, Gayger D., assignor.)						
Roberts, Lorenzo D. (See Tolman and Roberts.)						
Roberts, Marion M., Gossett, Ill. Harrow	388,222	Aug. 21	1586	{ 422 423 202 203 }	44	891
Roberts, Martin F., Kilburn, county of Middlesex, England. Wire-drawing machine	377,864	Feb. 14	793	{ 202 203 }	42	660
Roberts, T. S. (See Lipps, John, assignor.)						
Roberts, Thomas S., and J. Lipps, Rockford, Iowa. Leather-rounding machine	393,788	Dec. 4	78	22	45	1088
Roberts, W. E. (See Stuart, Levi B., assignor.)						
Roberts, William B., Sullivan, Ind. Cultivator, grain-drill, and harrow	383,076	May 15	1789	463	43	874
Roberts, William H. (See Naysmith, Robert, assignor.)						
Roberts, William H., Davenport Centre, N. Y. Butter-package	380,219	Mar. 27	2015	539	42	1377
Roberts, William M. (See Oldham and Roberts.)						
Robertson, Alexander and J., Welland, Ontario, Canada. Hoisting-machine	392,758	Nov. 13	857	220	45	766
Robertson, Edward G., Newark, N. J. Harness-saddle	393,926	Dec. 4	224	77	45	1126
Robertson, George L. (See Straffin and Robertson.)						
Robertson, Hugh R., St. John, New Brunswick, Canada. Log-raft	392,691	Nov. 13	757	192	45	746
Robertson, James. (See Robertson, Alexander and J.)						
Robertson, James C., E. F. Townsend, and W. R. Root, Morrisdale Mines, Pa. Rotary engine	388,300	Aug. 21	1731	462	44	920
Robertson, John, Pottsville, Pa. Preparation of bread	379,727	Mar. 20	1271		42	1223
Robertson, John, Brooklyn, N. Y. Manufacture of sheet metal	386,160	July 17	1216	{ 324 325 }	44	253
Robertson, John, Brooklyn, N. Y. Die for making lead wire, &c	380,321	Sept. 11	798	203	41	1231
Robertson, John H., New York, N. Y. Cable-railway grip	377,499	Feb. 7	229	55, 56	42	539
Robertson, John H., New York, N. Y. Car-brake	384,870	June 19	1546	402	43	1431
Robertson, Robert A., and J. G. Hudson, Glasgow, Scotland. Caue-mill	391,337	Oct. 16	1619	{ 428 429 }	45	326
Robertson, Samuel L., Cleveland, Ohio. Sand distributor and packer	375,895	Jan. 3	222	61	42	47
Robertson, William S., New Germany, Nova Scotia, Canada. Combined shingling-hammer and plane	386,608	July 24	1877	{ 495 496 }	44	392
Robes, Andrew, Somerville, Mass. Universal shaft-coupling	379,030	Mar. 6	251	71	42	1013
Robidean, Peter, Plattsburg, N. Y. Machine for cutting box-sections	383,148	May 22	1903	{ 497 498 }	43	906
Robinson, Aaron J., Fremont, N. H. Lubricating device	376,966	Jan. 24	1800	474	42	367
Robinson, Albert, and C. S. Rickard, Grand Rapids, Mich. Umbrella drip-catcher	390,255	Oct. 2	84	24	45	20
Robinson, Albert G., Brooklyn, N. Y. Adjustable support for laundry-tubs	379,333	Mar. 13	682	185	42	1101
Robinson, Charles H., St. Paul, Minn. Tube-expander	381,583	Apr. 24	1928	508	43	410
Robinson, Charles H., St. Paul, Minn. Radiator	386,558	July 24	1818	480	44	379
Robinson, Clark, Hartley, Iowa, assignor of one-half to F. A. Burger, St. Paul, Minn. Eraser	383,149	May 22	1906	498	43	907
Robinson, Don C., Madison, Ind., assignor to E. C. Atkins & Company, of Indiana. Saw-jointer	382,327	May 8	672	170	43	646
Robinson, Edward W., Portland, Me. Music-holder	385,010	June 26	1757	454	43	1482
Robinson, Edward W., C. H. O'Brien, and H. M. Breen, Portland, Me. Electric exercising-machine	375,835	Jan. 3	142	42	42	34
Robinson, Elizabeth. (See Robinson, William B. and E.)						
Robinson, Eston J., Toledo, Ohio. Convertible drain-cleaner	385,283	June 26	2174	555	43	1566
Robinson, Francis W., Richmond, Ind. Axle for thrashing-machines	382,009	May 1	188	49	43	548
Robinson, Fred A., and A. I. Smith, New York, N. Y. Fountain-pen	387,450	Aug. 7	374	97	44	646
Robinson, George. (See James and Robinson.)						
Robinson, George H., et al. (See Rider, Thomas J., assignor.)						
Robinson, George M., Baltimore, Md. Boiler-tube cleaner	379,728	Mar. 20	1272	339	42	1223
Robinson, George W., et al. (See Link, William D., assignor.)						
Robinson, George W., Marshall, Mich. Fire-extinguisher for car-beaters	384,642	June 19	1198	317	43	1365
Robinson, Harry. (See Thorpe, Edward E., assignor.)						
Robinson, Horace E., Waterbury, Conn. Button	386,559	July 24	1819	481	44	379
Robinson, Horace V., Fall River, Mass. Rod-cutter	385,139	June 26	1952	499	43	1521
Robinson, James M., Cincinnati, Ohio. Brake for bending sheet metal	393,553	Nov. 27	2063	540	45	1022
Robinson, James S., Jamestown, N. Y. Automatic shut-off valve for gas-service pipes	379,128	Mar. 6	386	110	42	1058
Robinson, John E., Philadelphia, Pa. Construction of canals, railway-beds, &c	380,934	Apr. 10	953	253	43	194



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page
Robinson, John E., Philadelphia, Pa. Hydraulic transit apparatus	393,584	Nov. 27	2065	541	45	1032
Robinson, John E., Philadelphia, Pa. Hydraulic transit	393,585	Nov. 27	2067	541	45	1023
Robinson, John E., Philadelphia, Pa. Hydraulic transit apparatus	393,586	Nov. 27	2068	541	45	1023
Robinson, John E., Philadelphia, Pa. Brake for railway-cars	393,587	Nov. 27	2070	541	45	1024
Robinson, John F., and C. W. Gonert, Newcastle, Del. Curtain-support	376,911	Jan. 24	1730	455	42	353
Robinson, John G. (See Appleby and Robinson.)						
Robinson, John S., Mannington, assignor to L. G. Robinson, Marion County, W. Va. Saw-guide	381,423	Apr. 17	1690	453	43	346
Robinson, Joshua. (See Hulford, William J., assignor.)						
Robinson, L. G. (See Robinson, John S., assignor.)						
Robinson, Mark H. (See Willams and Robinson.)						
Robinson, Orville M., Bath, N. Y. Truss	385,573	July 3	363	94	44	73
Robinson, Robert, Albany, N. Y. Duplex hand-stamp	389,667	Sept. 18	1330	348 349	44	1337
Robinson, Robert C., McLeansborough, Ill. Churn	388,373	Aug. 21	1838	488	44	938
Robinson, Robert C., Grand Haven, Mich. Check-row attachment for planters	390,707	Oct. 9	706	187	45	148
Robinson, Robert C., Grand Haven, Mich. Corn-planter	390,708	Oct. 9	708	188	45	149
Robinson, Rowley, Wymore, Nebr. Apparatus for transferring cars	377,117	Jan. 31	2029	531	42	418
Robinson, Samuel H., assignor to M. M. Merritt, trustee, Chelsea, Mass. Apparatus for burning oil for fuel	391,819	Oct. 30	2300	624	45	481
Robinson, Stillman W., Columbus, Ohio. Metal piling and substructure	377,332	Jan. 31	2335	677	42	476
Robinson, Stillman W., Columbus, Ohio. Machine for uniting the soles and uppers of boots or shoes	380,662	Apr. 3	531	147	43	107
Robinson, Stillman W., and S. P. Watt, assignors to J. S. Batterson and M. Hensil, Columbus, Ohio. Straight-edge trimmer	389,529	Sept. 11	1096	290	44	1288
Robinson, Theodore D. (See Willis, Ambrose, assignor.)						
Robinson, Thomas, Philadelphia, Pa. Reticulated or open work of metal bars	383,250	May 22	2041	537	43	934
Robinson, Thomas C., Boston, assignor of one-half to E. B. Welch, Cambridge, Mass. Binder-guide for sewing-machines	378,904	Mar. 6	62	18	42	979
Robinson, Thomas C., Boston, assignor to E. B. Welch, Cambridge, Mass. Basting-machine	378,905	Mar. 6	63	19	42	979
Robinson, Weller M., Montpelier, Iowa. Regulating attachment for corn-planter	378,724	Feb. 28	2055	542	42	920
Robinson, William, assignor of one-half to W. Lane, Bellefontaine, Ohio. Car-coupling	393,268	Nov. 20	1591	417	45	919
Robinson, William A., assignor of one-half to J. E. Randle, Memphis, Tenn. Slide-valve	388,374	Aug. 21	1838	488	44	939
Robinson, William B. and E. Brampton, county of Derby, England; said E. Robinson assignor to said William B. Robinson. Making surgical bandages	378,178	Feb. 21	1252	330	42	757
Robinson, William H. (See Caughrean, George H., assignor.)						
Robison, Charles W. and R. B., Allegheny City, Pa. Vehicle-seat	380,663	Apr. 3	534	147	43	107
Robison, Robert B. (See Robison, Charles W. and R. B.)						
Roblin, John F., Belleville, Ontario, Canada. Rowlock	380,220	Mar. 27	2016	530	42	1377
Roblin, John S., assignor to S. and J. F. Eddy and S. H. Roblin, Bay City, Mich. Safety car-store	385,428	July 3	140	38	44	29
Roblin, Stephen H., et al. (See Roblin, John S., assignor.)						
Roby, De Witt C., Eureka, Kans. Hay-rack	382,328	May 8	673	170	43	647
Robyn, Robert, Hermann, Mo. Base-ball-umpire's tally	394,399	Dec. 11	991	260	45	1270
Roche, James, assignor to Eagle Lock Company, Terryville, Conn. Lock	392,136	Oct. 30	2781	755	45	576
Roche, John. (See Duplessis, Elouild, assignor.)						
Roche, John J., New York, N. Y. Neckscarf	377,690	Feb. 7	513	131	42	592
Roche, William W., Hampton, Va. Truck	381,078	June 5	349	98	43	1187
Rochester Burner Company. (See Shaffer, Henry E., assignor.)						
Rochester, William F., Hickory Flat, Miss. Vehicle-brake	393,394	Nov. 27	1779	470	45	964
Rock Island Plow Company. (See Kerns, Simon A., assignor.)						
Rock, Oliver, Southborough, Mass. Sole-cutting die	389,763	Sept. 18	1464	384	44	1365
Rock, William S., assignor of one-half to W. W. Kirkpatrick, Dayton, Ohio. Parcel-clasp	387,737	Aug. 14	819	212	44	736
Rockenfield, William L. (See Everson, George R., assignor.)						
Rocker Spring Company. (See Bunker, William L., assignor.)						
Rocker Spring Company. (See Seng, Wendelin, assignor.)						
Rocker Spring Company. (See Stevens, Asher B., assignor.)						
Rockford Bolt Works. (See Mutimer, Frederick, assignor.)						
Rockford Can Company. (See Sovereign, Frederick J., assignor.)						
Rockingham Machine Company. (See Evans, Warren C., assignor.)						
Rockingham Machine Company. (See Fowler, Alfred B., assignor.)						
Rockingham Machine Company. (See Fowler and Warren, assignors.)						
Rockwell, Dwight, South Windsor, Conn., assignor of one-half to L. H. Mattison, New York, N. Y. Illuminated wind-vane	379,031	Mar. 6	252	71	42	1013
Rockwell, Frederick C., et al. (See Long, George S., assignor.)						
Rockwell, Frederick C., Hartford, Conn. Die for forming barrel-staves	389,599	Sept. 18	1231	319	44	1317
Rockwell, Ludlem B., Sumbury, Pa. Manufacture of knives for nail-machines	393,858	Dec. 4	183	50	45	1106
Rockwell, William M., Woonsocket, R. I. Handle	375,773	Jan. 3	70	21	42	18
Rockwood, Charles B., Keystone, Minn. Pyrotechnic helmet	387,657	Aug. 14	700	181	44	713
Rodden, William H., Toronto, Ontario, Canada. Barb for wire fencing	379,729	Mar. 20	1273	340	42	1223
Rodecap, George W., Middletown, Ind. Tricycle	376,551	Jan. 17	1169	307 308	42	238
Rodecap, George W., Middletown, Ind. Door-closer	378,807	Feb. 28	2181	581	42	944
Rodeck, Paul T. A., Amsterdam, Netherlands. Chronometer-escapement	377,839	Feb. 14	764	195	42	655
Rödel, Franz L., Elsterberg, Saxony, Germany. Adjustable crank for velocipedes	386,896	July 31	2329	612	44	481
Rodenbaugh, Charles, Allegheny, Pa. Pump	393,176	Nov. 20	1451	379	45	891
Roder, Adolph, Philadelphia, Pa. Preserving goblet, tumbler, &c.	375,955	Jan. 3	309	83	42	64
Rodger, John W., and R. J. Matheson, Berlin, Iowa. Machine for winding and unwinding wire	386,415	July 17	1600	420	44	329
Rodgers, Alexander, and W. T. Hatten, Roseland, Nebr. Dumping-wagon	378,523	Feb. 28	1766	467	42	865
Rodgers, Richard H. (See Coffield, Peter T., assignor.)						
Rodgers, Toppan P., Taunton, Mass. Railway signaling device	378,850	Feb. 28	2257	601	42	958
Rodgers, William H., Whitestone, N. Y. Indicator for boiler-feeds	382,732	May 15	1288	337 338	43	776
Rediger, William, Chicago, Ill. Bottle-closure	385,011	June 26	1757	455	43	1482
Rediger, William, assignor of one-half to W. H. Redington, Chicago, Ill. Mucilage-bottle	380,458	Apr. 3	225	61	43	46
Rodin, Charles F., San Francisco, assignor of one-half to P. C. Rice, Eureka, Cal. Boat-davit attachment	389,410	Sept. 11	932	244	44	1257
Rodman, James R., New York, N. Y. Machine for making plaster bandages	387,183	July 31	2755	721	44	562
Roe, Alpheus E., assignor to Tatam & Bowen, San Francisco, Cal. Crushing-mill	380,891	Apr. 10	776	212	43	163
Roe, Alpheus E., assignor of one-half to J. H. Bolles, San Francisco, Cal. Cable-railway grip	381,032	Apr. 10	1107	295 296	43	223

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Roe, Charles S., Chicago, Ill. Smoke-stack .....	267,568	Aug. 7	568	118	44	681
Roe, Cyrenius C., Wales, N. Y. Pilot's and engineer's signal for steamboats .....	380,350	Apr. 3	70	23	43	17
Roe, John S., Chicago, Ill. Folding bed .....	390,805	Oct. 9	811	225	45	173
Roe, Justus, Patchogue, N. Y. Reel for tape-measures, fishing-lines, &c. ....	387,541	Aug. 7	520	134	44	672
Roebber, Charles A., Washington, D. C. Lamp-bracket .....	395,000	Dec. 25	1982	511	45	1181
Roedel, Franz L., Elsterberg, Saxony, Germany. Adjustable crank for velocipedes .....	394,135	Dec. 4	584	157	45	1183
Roeder, George, Booneville, Mo. Carriage-curtain fastening .....	394,884	Dec. 18	1784	463	45	1435
Roehl, Carl, assignor of one-half to G. A. Misch, Chicago, Ill. Flour mixing and sifting machine .....	389,165	Sept. 4	553	139	44	1174
Roemer, William, Newark, N. J. Bag or satchel frame .....	378,263	Feb. 21	1388	363 364	42	782
Roemer, William, Newark, N. J. Frame for traveling-bags .....	378,620	Feb. 28	1906	504 505	42	893
Roemer, William, Newark, N. J. Bag or satchel frame .....	386,789	July 24	2138	561 562	44	410
Roesling, Frederick, Cleveland, Ohio. Tobacco-pipe .....	384,392	June 12	830	216	43	1286
Roessler, Franz, <i>et al.</i> (See Rumpf, Gustav, assignor.)						
Roessler & Hasslaeber. (See Brunetti, Charles J., assignor.)						
Roessler & Hasslaeber. (See Rumpf, Gustav, assignor.)						
Rogan, C. W., <i>et al.</i> (See Bartlett, Thomas J., assignor.)						
Rogers, Albert C., Alfred, N. Y. Car-brake .....	379,983	Mar. 27	1678	417	42	1311
Rogers, Arthur C., and H. Stenz, Faribault, Minn. Wheel-fender for carriages .....	384,335	June 12	746	196	43	1271
Rogers & Brother. (See White, William W., assignor.)						
Rogers, Charles, Allegheny, Pa. Metallic piston-packing .....	393,177	Nov. 20	1453	379	45	891
Rogers, Charles A., trustee. (See Lortzing, Carl, assignor.)						
Rogers, Charles D., Providence, R. I. Musical toy .....	376,611	Jan. 17	1260	330	42	256
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Machine for finishing heads of screw-bolts .....	376,416	Jan. 10	969	353 254	42	194
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Barb-wire machine .....	376,417	Jan. 10	973	254 255	42	194
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Barb-wire machine .....	376,418	Jan. 10	979	256	42	195
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Machine for making screw-blanks .....	386,091	July 10	1111	397 298	44	226
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Wood-screw machine .....	386,092	July 10	1119	298	44	227
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Die for forming and threading the points of screws .....	387,184	July 31	2756	721	44	562
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Die for forming screw-heads .....	389,106	Sept. 4	554	140	44	1174
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Die for forming screw-heads .....	389,167	Sept. 4	556	140	44	1174
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Screw thread-making machine .....	389,168	Sept. 4	558	140 141	44	1175
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Machine for making screw-blanks .....	389,169	Sept. 4	562	141 142	44	1175
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Machine for rolling screw-threads .....	389,170	Sept. 4	565	142	44	1176
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Screw-swaging machine .....	393,484	Nov. 27	1923	503	45	991
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Die for pointing and cutting off nails .....	393,519	Nov. 27	1978	516	45	1004
Rogers, Charles W., Baltimore, Md. Harness-loop .....	391,192	Oct. 16	1424	380	45	290
Rogers, Edmund D., Church End, Finchley, county of Middlesex, England, assignor to P. Wilcox, New York, N. Y. Means for securing stereotype-plates which are cast separately from their beds .....	381,820	Apr. 24	2287	595	43	479
Rogers, Elias H., Durham, Conn. Pipe-stem .....	381,170	Apr. 17	1327	354	43	274
Rogers Fence Company. (See Earnest, George H., assignor.)						
Rogers Fence Company. (See Rogers, Timothy, assignor.)						
Rogers, Frank G., <i>et al.</i> (See Miller, Edward L., assignor.)						
Rogers, Homer, trustee. (See Busch, James H., assignor.)						
Rogers, James S. (See Andrews and Rogers.)						
Rogers, James S., Rockport, Mass. Dumping-screw .....	391,080	Oct. 16	1271	338	45	260
Rogers, John A., Hartsell's, Ala. Sash-balance .....	389,248	Sept. 11	693	177	44	1212
Rogers, John R., Loraine, assignor to Hoyt, Ruthrauff & Wagner, Cleveland, Ohio. Machine for making stereotype-matrices .....	389,108	Sept. 4	465	119 120	44	1159
Rogers, Lester A. (See Day and Rogers.)						
Rogers, Mary S. (See Kearney and Hawley, assignors.)						
Rogers, Samuel C., Hamilton, Ontario, Canada, assignor to Hart Emery Wheel Company, (limited.) Saw-filing machine. (Reissue.) .....	10,937	June 5	579	157	43	1234
Rogers, Seth, assignor to E. Lee, Ballston Spa, N. Y. Hand-truck .....	376,209	Jan. 10	691	183	42	142
Rogers, Thomas C. (See Leadbeater, Frederick, assignor.)						
Rogers, Timothy, Kenton, assignor to Rogers Fence Company, Springfield, Ohio. Stairway .....	385,012	June 26	1758	455	43	1482
Rogers, Timothy, assignor, by mesne assignments, to W. Burns, Springfield, Ohio. Lawn-mower .....	391,193	Oct. 16	1424	381	45	290
Rogers, Timothy, assignor to Rogers Fence Company, Springfield, Ohio. Harrow .....	391,194	Oct. 16	1428	381 382	45	290
Rogers, William, Pittsburg, Pa., and W. H. Rogers, Wheeling, W. Va. Manufacture of planished sheet-iron .....	380,822	Apr. 10	777	213	43	163
Rogers, William H. (See Rogers, William and W. H.)						
Rogers, Winfield S. (See Jones and Rogers.)						
Roggenburger, Sigmond, Philadelphia, Pa. Artificial feather .....	389,411	Sept. 11	933	244	44	1257
Rogzy, Nicholas, Walnut, Ill. Cultivator .....	378,463	Feb. 28	1686	442	42	847
Rohan, Philip, St. Louis, Mo. Feed-water heater and filter .....	387,696	Aug. 14	761	194	44	725
Rohan, Philip, St. Louis, Mo. Feed-water heater .....	394,136	Dec. 4	585	157	45	1183
Rohan, Philip, St. Louis, Mo. Feed-water heater .....	394,137	Dec. 4	587	158	45	1183
Rohde, Peter W., assignor of one-half to Meiners & Schuette, New York, N. Y. Watch-balance .....	380,769	Apr. 10	704	194	43	149
Roht, Antone. (See Snyder and Roht.)						
Rohwer, Henry. (See Boeckneke and Rohwer.)						
Roland, Abraham, Westover's, assignor of one-half to J. M. Bonn, New Washington, Pa. Wrench .....	379,984	Mar. 27	1679	448	42	1311
Roland, Daniel W., Akron, Ohio. Ratchet for stove-pipe dampers .....	389,109	Sept. 4	467	120	44	1160
Rolapp, Otto F. B., Fulton, Ky. Stump-extractor .....	380,351	Apr. 3	71	23	43	17
Rolfe, Benjamin F., <i>et al.</i> (See Rickard and Wright, assignors.)						
Rolfe, Squire B., Ithaca, N. Y. Bug-poison distributor .....	395,176	Dec. 25	2259	580	45	1533

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.-g.	Vol.	Page.
Rollason, Arthur, London, county of Middlesex, England. Gas or caloric engine.....	391,338	Oct. 16	1620	429	45	326
Rollason, Arthur, Newcastle-on-Tyne, county of Northumberland, England. Gas or caloric engine.....	394,299	Dec. 11	841	223	45	1241
Rollason, Arthur, Newcastle-on-Tyne, county of Northumberland, England. Speed-governing apparatus.....	394,300	Dec. 11	843	223	45	1241
Rollason, Joseph G. (See Cadbury and Rollason.)						
Rollings, Winfield S., assignor to R. R. Rouse, Indianapolis, Ind. Chain-wrench.....	381,424	Apr. 17	1690	453	43	346
Rollins, George L., assignor of one-half to Eagle Cotton Gin Company, Bridgewater, Mass. Feeder for cotton-gins.....	391,195	Oct. 16	1429	382	45	291
Rolls, Edwin C., Chatham, Ontario, Canada. Nut-lock.....	379,523	Mar. 13	964	260	42	1155
Rolls, Edwin C., Chatham, Ontario, Canada. Nut-lock.....	392,070	Oct. 30	2666	725	45	553
Romain, François, assignor to himself, H. and E. J. Recoura, Grenoble, France. Automatic pump.....	393,520	Nov. 27	1979	517	45	1004
Romain, James H. (See Hoffmann, Otto C., assignor.)						
Romang, John, Milwaukee, Wis. Heating drum or pipe.....	393,313	Nov. 20	1656	437	45	932
Romano, Jesus A., and E. A. Barton, Celaya, Guanajuato, Mexico. Fly-wheel-clutching device.....	392,759	Nov. 13	860	220	45	767
Romano, Jesus A., and E. A. Barton, Celaya, Guanajuato, Mexico. Fly-wheel.....	392,760	Nov. 13	861	220	45	768
Rombauer, Bertha, et al. (See Rombauer, Robert J., assignor.)						
Rombauer, Ernest E., et al. (See Rombauer, Robert J., assignor.)						
Rollins, Julius T., et al. (See Rombauer, Robert J., assignor.)						
Rombauer, Robert J., assignor of ninety-nine one-hundredths to J. T., E. E., and B. Rombauer, St. Louis, Mo. Velocipede.....	389,855	Sept. 18	1611	{ 425 426 }	44	1394
Rome, George. (See Eisaman and Rome.)						
Romer Bros. Manufacturing Co. (See Romer, John P. and N., assignors.)						
Romer, John P. and N., assignors to Romer Bros. Manufacturing Co., Gowanda, N. Y. Saw-gunner.....	383,191	May 22	1959	513	43	917
Romer, Nicholas. (See Romer, John P. and N.)						
Rommenholler, Carl G. (See Luhmann, Eduard, assignor.)						
Rommenholler, Carl G., et al. (See Schmitt Johann assignor.)						
Rood, Edwin O., assignor of one-half to O. B. Green, Chicago, Ill. Ditching, dredging, or excavating machine.....	386,438	July 17	1627	{ 427 428 429 }	44	335
Rood, John, and I. Vaughan, Salem, Mass. Machine for shaving hides or skins.....	383,914	June 5	104	30	43	1141
Rooker, Otto E., Mooresville, Ind. Toy.....	387,542	Aug. 7	521	135	41	672
Roome, Henry C., Jersey City, N. J. Electric burglar-alarm.....	382,439	May 8	838	{ 215 216 }	43	679
Rooney, Henry F., Randolph, Mass. Burnishing-machine.....	376,045	Jan. 3	446	119	42	89
Rooney, Patrick, assignor to C. F. Sylvester & Co., Fall River, Mass. Weaver's comb.....	378,376	Feb. 21	1548	405	42	814
Roosevelt, Alfred, executor. (See Roosevelt, Hilborne L., assignor.)						
Roosevelt, Hilborne L., deceased. (A. Roosevelt executor.) New York, N. Y. Galvanic battery. Root Electric Gas Lighting Company. (See Root, Francis H., assignor.)	393,395	Nov. 27	1780	470	45	964
Root, Francis H., Chicago, Ill., assignor to Root Electric Gas Lighting Company, of Illinois. Galvanic battery.....	393,123	Nov. 20	1381	360	45	877
Root, Hannah M., et al., administrators. (See Root, John B.)						
Root, Henry. (See Clement and Watriss, assignors.)						
Root, John B., deceased, Port Chester, N. Y.; H. M. Root and W. S. Church, administrators. Spirally-welded tube.....	376,680	Jan. 17	1375	362	42	277
Root, John B., deceased, Port Chester, N. Y.; H. M. Root and W. S. Church, administrators. Making spirally-welded tubing.....	376,681	Jan. 17	1376	362	42	277
Root, John B., deceased; H. M. Root and W. S. Church, Port Chester, N. Y., administrators. Blow-pipe apparatus.....	377,467	Feb. 7	181	43	42	530
Root, John B., deceased, Port Chester, N. Y.; H. M. Root and W. S. Church administrators. Sheet-metal pipe.....	379,663	Mar. 20	1174	312	42	1203
Root, S. Emerson. (See Piper, Edwin S., assignor.)						
Root, William G. (See Robertson, Townsend, and Root.)						
Roots, Francis T. (See Heinemann, Theodore P., assignor.)						
Roots, James, Wolseley Gardens, Gunnersbury, county of Middlesex, England. Oil-lamp.....	384,079	June 5	350	99	43	1187
Roovers, Alfred W. (See Williams and Roovers.)						
Roovers, Alfred W. (See Williams and Roovers.) (Reissue.)						
Roper, Charles F., assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles.....	378,906	Mar. 6	65	19	42	979
Roper, George M. (See Settle, Thomas, assignor.)						
RoqueMORE, Peter D., De Berry, Tex. Gear-power for presses.....	387,451	Aug. 7	375	97	41	646
Rosback, Fredrick P., Chicago, Ill. Perforating-machine.....	387,543	Aug. 7	522	{ 135 136 }	41	673
Roscoc, Allison M., and G. E. Grier, Dubois, Pa. Bag-holder.....	379,817	Mar. 20	1417	377	42	1251
Rose, Abram D. (See Davis, Willis, assignor.)						
Rose, Edson H., Worcester, Mass. Pillow-sham and screen holder.....	392,933	Nov. 13	1106	287	45	816
Rose Gas Generator Company. (See Rose, James M., assignor.)						
Rose, George W., Washington, Pa. Bailor.....	393,485	Nov. 27	1925	503	45	991
Rose, Henry C. (See Nichols and Rose.)						
Rose, Henry C., Leadville, Colo. Addition-register for pencils.....	380,519	Apr. 3	325	93	43	66
Rose, Henry C., Leadville, Colo. Mouth-piece for pipes.....	380,520	Apr. 3	326	93	43	67
Rose, James, Franklin, Mass. Pipe-wrench.....	383,544	May 29	2507	662	43	1025
Rose, James, Franklin, Mass. Pipe-wrench.....	390,402	Oct. 2	292	76	45	62
Rose, James M., Syracuse, N. Y. Blank-book.....	384,933	June 19	1626	422	43	1447
Rose, James M., Syracuse, N. Y. Book.....	393,664	Nov. 27	2193	575	45	1047
Rose, James M., Allegheny Pa., assignor to Rose Gas Generator Company, of New Jersey. Manufacturing water-gas.....	391,386	Oct. 16	1692	448	45	339
Rose, James M., Allegheny Pa., assignor to Rose Gas Generator Company, of New Jersey. Apparatus for the manufacture of water-gas.....	391,387	Oct. 16	1694	448	45	340
Rose, John, assignor of one-half to C. F. Dollner, Philadelphia, Pa. Umbrella-runner retainer.....	380,935	Apr. 10	954	253	43	195
Rose, John, assignor of one-half to C. F. Dollner, Philadelphia, Pa. Machine for slotting umbrella-sticks.....	391,648	Oct. 23	2046	554	45	422
Rose, Judson B. (See Sangster, James, assignor.)						
Rose, Oscar E., Topeka, Kans. Car-mover.....	389,600	Sept. 18	1222	319	44	1317
Rose, Reuben A., Geneseo, N. Y. Spring-tooth harrow.....	381,171	Apr. 17	1327	354	43	274
Rose, Reuben M., Norwalk, Conn. Fare register and recorder.....	377,960	Feb. 14	936	244	42	690
Rose, Reuben M., Norwalk, Conn. Seal.....	390,988	Oct. 9	1121	296	45	224
Rose, Reuben M., Norwalk, Conn. Seal-lock.....	392,927	Nov. 6	74	18	45	668
Rose, Walter A. (See McGarvey, William B., assignor.)						
Rose, Wiley, Eddyville, Ill. Quilt-holding attachment for sewing-machines.....	391,081	Oct. 16	1273	338	45	261

## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Roseberry, John F., Burlington Junction, Mo. Motor	392,290	Nov. 6	163	42, 43	45	624
Rosebrugh, Abner M., Toronto, Ontario, Canada. Mechanical-telephone system	389,601	Sept. 18	1223	330	44	1318
Rosellius, Charles H., Nebraska City, Nebr. Door catch	389,110	Sept. 4	468	130	44	1160
Rosenbaum, Albert, New York, N. Y. Self-setting time-piece	389,111	Sept. 4	469	121	44	1160
Rosenberg, Albert, Baltimore, Md. Annunciator	395,251	Dec. 25	2378	609	45	1554
Rosenberg, George, Muskegon, Mich. Offset mechanism for saw-mill carriages	393,927	Dec. 4	286	77	45	1126
Rosencranz, Albert C., Evansville, Ind. Plow	384,283	June 12	662	177 178	43	1257
Rosenfeld, Sigmund, and J. Zeleny, Gablonz, Bohemia, Austria-Hungary. Manufacture of paste for polishing and protecting metals from rust	385,776	July 10	685		44	137
Rosenstiehl, Daniel A. (See Poirier and Rosenstiehl.)						
Rosenthal, Charles T., Batesville, Ark. Box for the sale of goods	376,261	Jan. 10	761	202	42	156
Rosentreter, Frank L., Cleveland, Ohio, assignor to Andrus Manufacturing Company, Rochester, N. Y. Sash-holder	379,664	Mar. 20	1175	312	42	1203
Rosentreter, Frank L., Cleveland, Ohio, assignor to Andrus Manufacturing Company, Rochester, N. Y. Sash-fastener	379,910	Mar. 20	1573	415	42	1280
Rosentreter, Frank L., assignor of one-half to W. H. Caldwell, Rochester, N. Y. Sash-balance	392,071	Oct. 30	2667	725	45	553
Rosenwasser, Nathan, Cleveland, Ohio, and F. Rosewater, Omaha, Nebr. Game-counter	381,425	Apr. 17	1691	454	43	346
Rosewater, Frank. (See Rosenwasser and Rosewater.)						
Ross, Albert J., and J. T. Darter, assignors of one-third to A. O. Woodbury, Madisonville, Tex. Automatic railway-signal	391,388	Oct. 16	1696	449	45	340
Ross, Albert L., et al. (See Ross, Lafayette, assignor.)						
Ross, Augustus, et al. (See Miller, Edward I., assignor.)						
Ross, Charles, Milwaukee, Wis. Gate for swinging bridges	390,621	Oct. 2	585	155	45	117
Ross, David M. (See Lindsay and Ross.)						
Ross, Donald, and N. Brooker, St. Joseph, Mo. Fire-extinguishing attachment for car-stoves	376,163	Jan. 10	626	168	42	131
Ross, Evirmint, et al. (See Ross, Lafayette, assignor.)						
Ross, Frederick J. and W. H., South Hadley Falls, Mass. Velocipede-boat	380,221	Mar. 27	2018	540	42	1377
Ross, George and W. Troy, N. Y. Water-engine valve	384,336	June 12	747	196	43	1271
Ross, George B., Buffalo, N. Y. Steam-trap	392,366	Nov. 6	282	72	45	648
Ross Heel Company et al. (See Taylor, Eugene H., assignor.)						
Ross, Jasper S., Geneva, Ohio. Inkstand	379,247	Mar. 13	558	155	42	1077
Ross, Jasper S., Geneva, Ohio. Inkstand	379,248	Mar. 13	559	155	42	1077
Ross, John H. (See Evans and Ross.)						
Ross, Josiah, Buffalo, N. Y. Wood-planing machine	385,284	June 26	2175	555	43	1566
Ross, Lafayette, Gilkerson, assignor of two-thirds to E. Ross, L. M. Gilkerson, A. L. Ross, and L. Gilkerson, Jr., Beach Forks, W. Va. Car-coupling	393,343	Nov. 20	1699	449	45	940
Ross, Lester E., St. Paul, Minn., assignor to Ross Loom Company, Nashua, N. H. Shuttle-motion for looms	383,077	May 15	1791	463	43	874
Ross, Levi J., Goodwin, Dak. Ter. Rope-measuring device	381,193	May 1	459	119	43	598
Ross Loom Company. (See Ross, Lester E., assignor.)						
Ross Patent Lighting Company. (See Evans and Ross, assignors.)						
Ross Patent Lighting Company. (See Wigham, John R., assignor.)						
Ross, Robert N., St. Louis, Mo. Brick-machine	377,778	Feb. 14	675	169 170 296 297	42	639
Ross, Robert N., and H. H. Keller, St. Louis, Mo. Brick-machine	394,510	Dec. 11	1143		45	1297
Ross, Samuel A., assignor of one-half to H. R. Barnhurst, Erie, Pa. Pipe expander and cutter	381,080	June 5	352	99	43	1188
Ross, Simon, Jr., Newport, Ky. Leather-splitting machine	378,179	Feb. 21	1253	330 331	4	757
Ross, Thomas B. (See Pennobaker and Ross.)						
Ross, Walter T., Quebec, Quebec, Canada. Thill-coupling	390,256	Oct. 2	84	24	45	20
Ross, William. (See Ross, George and W.)						
Ross, William, Troy, N. Y. Cylinder for hydraulic motors	382,389	May 8	772	196	43	666
Ross, William, Lachine, Quebec, Canada. Machine for upsetting metal bars	394,011	Dec. 4	402	108	45	1148
Ross, William H. (See Ross, Frederick J. and W. H.)						
Ross, William S., Madisonville, Ky. Combination implement	384,592	June 12	1123	297	43	1341
Rossbach, William F., Brooklyn, N. Y. Electric alarm system	393,078	Nov. 20	1319	344	45	865
Rossler, Ludwig, Aibling, Bavaria, Germany. Screw-conveyer	376,552	Jan. 17	1171	308	42	239
Rossman, William F., Hudson, N. Y. Hot-air register for fire-place heaters	381,283	Apr. 17	1483	399	43	304
Rosney, William C., Hyde Park, and C. L. Hunt, Boston, Mass. Method of and apparatus for dissipating electricity in delivering sheets from printing-machines	391,820	Oct. 30	2303	624	45	482
Röstel, Carl, assignor to Grusonwerk, Magdeburg-Buckau, Prussia, Germany. Breech-loading ordnance	383,372	May 22	2219	589	43	965
Roswald, Raymond F., New York, N. Y. Apparatus for refrigerating and ice-making by the use of ammonia	383,251	May 22	2045	537 538 539	43	934
Roswell, Elisha R., Stratford, Conn., and G. H. Conger, Chamois, Mo. Railway-signal	391,919	Oct. 30	2444	661	45	510
Rote, Charles V., et al. (See Snyder, Elmer E., assignor.)						
Roth, George, Highland, Ill. Machine for liquidizing condensed milk	383,915	June 5	105	31	43	1141
Roth, George, Highland, Ill. Milk-preserving machine	385,013	June 26	1760	455	43	1483
Roth, John E., Coal City, Ind. Combined ironing-board and wash-bench	380,268	Mar. 27	2078	556	42	1390
Roth, Julius. (See Kochendorfer and Roth.)						
Rothchild, Joseph, assignor of three-fourths to D. C. Crutcher and P. W. Hardin, Frankfort, Ky. Governor for pressure-engines	392,638	Nov. 13	682	171	45	731
Rothe, August, New York, assignor, by mesne assignments, to W. W. and C. H. Cotton, Brooklyn, N. Y. Book-index-cutting machine	384,252	May 22	2053	539	43	936
Rothlisberger, Ernest. (See Schieckner and Rothlisberger.)						
Rothwell, William E., assignor to Warnock & Co., Galt, Ontario, Canada. Fifth-wheel	383,323	May 22	2153	568	43	953
Rottaken, Herbert H. (See Wherry and Rottaken.)						
Roubinet, Eli. (See Maury and Roubinet.)						
Roullié, Edmond J., and L. A. Singier, Paris, France. Car-coupling	381,033	Apr. 10	1108	296 297	43	224
Round Valve Company. (See Reaser, Warren T., assignor.)						
Rounds, Thomas G., Riverside, Cal. Provision-safe	389,906	Sept. 25	1693	447	44	1417
Rounds, Thomas W., Providence, R. I. Automatic switch for street-railways	394,939	Dec. 18	1880	486	45	1453
Rourk, Francis, London, Ontario, Canada. Velocipede	384,643	June 19	1199	317	43	1365
Rouse, Jasper A., East Berkshire, Vt. Thrashing-machine	377,214	Jan. 31	2156	569	42	444
Rouse, John H., Somerville, assignor to R. Hollings & Company, Boston, Mass. Adjustable lamp or other stand	393,031	Nov. 20	1260	326	45	853
Rouse, Michael, Dushore, Pa. Steel-brake	391,012	Dec. 4	404	109	45	1148

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Rouse, Roswell R. (See Rollings, Winfield S., assignor.)						
Rowand, Archibald H., Allegheny, Pa. Pipe-coupling.	378,150	Feb. 21	1215	316	42	750
Rowand, Francis L., deceased; M. E. Cantero, Philadelphia, Pa., administratrix and assignor of one-half to R. S. Pettet, Atlantic City, N. J. Easel.	395,263	Dec. 25	2397	614	45	1558
Rowe, Arthur C., et al. (See Hart, Alfred A., assignor.)						
Rowe, John B., La Fontaine, Kans. Gate.	388,789	Aug. 28	2421	653	44	1057
Rowe, L. Leroy, Boston, Mass. Heating stove or furnace.	378,019	Feb. 14	1018	266	42	706
Rowe, L. Leroy, Boston, Mass. Tumbler or bottle washer.	378,621	Feb. 28	1908	505	42	893
Rowe, Lewis H., et al. (See Kearney, William F., assignor.)						
Rowell, Charles. (See Googins, James G., assignor.)						
Rowell, Guilford D., Appleton, Wis. Feed-mill.	393,032	Nov. 20	1263	{ 336 327 }	{ 45 }	854
Rowell, Norris G. (See Neely and Rowell.)						
Rowen, Henry, et al. (See Mullica, John and B. F., assignors.)						
Rowland, Charles, Quincy, Ill. Handle for mangle-brushes.	376,397	Jan. 10	940	246	42	188
Rowland, Charles L., Brooklyn, N. Y. Gas-pressure regulator.	384,284	June 12	663	178	43	1257
Rowland, Daniel B., Mount Shasta, Cal. Vibrating propeller for boats.	391,196	Oct. 16	1430	382	45	291
Rowland, Frederick C., New Haven, Conn. Digester.	376,612	Jan. 17	1262	{ 330 331 }	{ 42 }	256
Rowland, Thomas F., New York, N. Y. Welding machine.	375,836	Jan. 3	150	43	42	34
Rowland, Thomas F., New York, N. Y. Gas-holder.	393,724	Nov. 27	2274	{ 596 597 }	{ 45 }	1063
Rowland, Thomas F., New York, and W. E. Hill, Brooklyn, N. Y.; said Hill assignor to said Rowland. Corrugating-machine.	379,985	Mar. 27	1630	{ 448 449 }	{ 42 }	1311
Rowland, Thomas F., New York, W. E. Hill and A. McLachlan, Brooklyn, N. Y.; said Hill and McLachlan assignors to said Rowland. Cylinder-welding apparatus.	381,081	June 5	353	100	43	1188
Rowland, Thomas F., New York, W. E. Hill and A. McLachlan, Brooklyn, N. Y.; said Hill and McLachlan assignors to said Rowland. Cylinder-welding apparatus.	381,082	June 5	354	100	43	1189
Rowland's Sons, T. (See Van Riper, George, assignor.)						
Rowlett, Jacob V., Richmond, Ind. Lawn-mower.	383,829	May 29	2930	{ 774 775 }	{ 43 }	1110
Rowley, Frederick J. (See Luthy, Edward F., assignor.)						
Rownd, R. M. (See Timms, James, assignor.)						
Roy, Bozil S., Worcester, Mass. Card-grinder.	379,285	Mar. 13	614	168	42	1088
Royal Machine Manufacturing Company. (See Illston, George, assignor.)						
Royce, Henry W., Chicago, Ill. Receiptacle for check-ships, &c.	382,733	May 15	1290	338	43	776
Royce, Marvin O., East Somerville, Mass. Apparatus for raking and loading hay.	386,897	July 31	2330	612	44	484
Royce, William A., Newburg, N. Y. Drive-point for driven wells.	389,249	Sept. 11	694	177	44	1212
Royer, George F., Wilkes-Barré, Pa. Steam muffler.	379,608	Mar. 20	1100	292	42	1188
Royle, John J., Manchester, county of Lancaster, England. Coffee or tea pot.	380,521	Apr. 3	326	93, 94	43	67
Royle, Vernon, Paterson, N. J. Machine for winding quills and bobbins.	385,480	July 3	215	56, 57	44	43
Royle, Vernon, Paterson, N. J. Machine for winding shuttle-quills, &c.	389,013	Sept. 4	297	79, 80	44	1129
Roys, Edward H., Spencertown, N. Y. Book-holder.	393,521	Nov. 27	1981	517	45	1004
Ru Ton, Hiram W. (See Gore, Ru Ton, and Kelley.)						
Ru Ton, Hiram W., et al. (See Gore, Henry A., assignor.)						
Ru Ton, Hiram W., assignor of two-thirds to H. A. Gore and E. W. Walker, Goshen, Ind. Carpet-sweeper.	388,376	Aug. 21	1843	489	41	939
Ruhel, John W. (See Shiek, Daniel W., assignor.)						
Rubin, Max, New York, N. Y. Glove-fastener.	376,912	Jan. 24	1731	455	42	354
Rubin, Max, New York, N. Y. Fan.	382,242	May 1	532	136	43	611
Rubin, Max, New York, N. Y. Belt-buckle.	394,013	Dec. 4	405	109	45	1149
Rubin, Max, New York, N. Y. Buckle.	394,014	Dec. 4	406	109	45	1149
Rubin, Mayer, Baltimore, Md. Suspenders.	391,721	Oct. 23	2146	580	45	441
Ruby, John E., et al. (See Martin, John D., assignor.)						
Ruby, Joshua C., Philadelphia, Pa. Machine for molding confections.	393,665	Nov. 27	2194	{ 575 576 }	{ 45 }	1047
Ruckle, Franz, and W. Wolters, assignors to J. G. Foster, New York, N. Y. Carburetor.	390,037	Sept. 25	1882	497	44	1455
Ruddall, Eli A., and N. R. Long, Shelby, N. C. Churn.	381,185	July 31	2758	722	44	562
Ruddick, Hamilton, Brooklyn, N. Y., assignor to Pulverized Coal and Furnace Company, of New York. Apparatus for reducing and pulverizing fuel.	388,375	Aug. 21	1839	489	44	939
Ruddock, Nathan S., Granite Falls, Minn. Washing-machine.	393,033	Nov. 20	1265	327	45	854
Ruddy, Robert, Mount Vernon, and L. Kaezauder, assignors to Nathan Manufacturing Company, New York, N. Y. Injector.	387,599	Aug. 7	619	161	44	691
Rude Brothers Manufacturing Company. (See Rude, Markus D., assignor.)						
Rude, Markus D., assignor to Rude Brothers Manufacturing Company, Liberty, Ind. Corn-drill.	389,907	Sept. 25	1694	{ 447 448 }	{ 44 }	1418
Rudisill, Louis A., Charlotte, N. C. Car-coupler.	376,967	Jan. 24	1801	474	42	367
Rudolph, Calvin F. (See Archer, Roger W., assignor.)						
Rudolph, Christian, assignor to K. Ochler, Offenbach, near Frankfort-on-the-Main, Germany. Production of yellow coloring-matter.	382,832	May 15	1420	.....	43	802
Rudolph, Christian, assignor to K. Ochler, Offenbach-on-the-Main, Germany. Coloring-matter.	395,080	Dec. 25	2093	.....	45	1504
Rudolph, Franklin, Chicago, Ill. Fire-screen.	390,140	Sept. 25	2032	541	44	1487
Rueckert, Michael. (See Whittledge, Kemner, and Rueckert.)						
Ruedy, Ulrich, et al. (See Clouse, Joseph N., assignor.)						
Rueger, Charles C., Anaconda, Mont. Ter. Ore-concentrator.	382,833	May 15	1421	372	43	802
Ruesch, Jacob, Milwaukee, Wis. Lock-up for printers' forms.	380,597	Apr. 3	441	124	43	90
Ruesing, Joseph. (See Foellmer, Fritz, assignor.)						
Ruffhead, Thomas G., Renovo, Pa. Car-door.	382,243	May 1	533	136	43	611
Ruffley, George E. (See Aughenbaugh and Ruffley.)						
Ruffner, Daniel B., et al. (See Dunn, William, assignor.)						
Rugg, Datus E., assignor to R. E. Rugg, Albany, N. Y. Music-holder.	381,486	Apr. 17	1787	476	43	364
Rugg, Earle L., Woodland, Cal. Astronomical apparatus.	384,285	June 12	664	178	43	1257
Rugg, Rittie E. (See Rugg, Datus E., assignor.)						
Ruggles, Daniel, Fredericksburg, Va. Signaling at sea.	382,056	May 1	271	.....	43	563
Ruggles, F. N. (See Frantz, Eugene L., assignor.)						
Ruggles, Frederick N. (See Bates, Chester M., assignor.)						
Rumble, A. Carson, J. Symington, and N. Strong, Santa Fé, N. Mex. Ter. Automatic fire-extinguisher for railway-coaches.	376,046	Jan. 3	446	119	42	89
Rumely, Meinrad. (See Rumely, William N., assignor.)						
Rumely, William N., assignor to himself and M. Rumely, La Porte, Ind. Steam-boiler.	389,250	Sept. 11	696	177	44	1212
Rump, J. (See Flagg, George C., assignor.)						
Rumpel, Bernhard, Brooklyn, N. Y. Extension-lounge.	383,923	Aug. 21	1588	483	44	891



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Month & volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Rumpf, Gustav, Frankfort-on-the-Main, Germany, assignor to F. Roessler and J. Hasslacher, New York, N. Y. Manufacture of chloroform from acetone	383,992	June 5	221	66	43	1164
Rumpf, Gustav, Frankfort-on-the-Main, Germany, assignor to F. Roessler and J. Hasslacher, New York, N. Y. Manufacture of acetone	385,777	July 10	665	174	44	131
Rumpf, Gustav, Frankfort-on-the-Main, Germany, assignor to Roessler & Hasslacher, New York, N. Y. Manufacture of acetone	393,079	Nov. 20	1320	314	45	865
Rumsey, Albert R. (See Skinner, Thomas, assignor.)						
Rumsey, Charles B., Homer, N. Y. Wire-twisting tool	382,666	May 8	1199	311	43	749
Rumsey, Charles B., assignor to Wire Fabric Company, Homer, N. Y. Wire-reel	376,913	Jan. 24	1732	455	42	354
Rumsey, Charles B., assignor to Wire Fabric Company, Homer, N. Y. Bobbin-winding machine	380,352	Apr. 3	72	24	43	17
Rundblad, Carl V. (See Peterson and Rundblad.)						
Rundquist, Charles J., Opheim, Ill. Foot-power hammer	379,818	Mar. 20	1420	377	42	1252
Runeström, Erik, Boston, Mass. Tail-piece for violins	393,034	Nov. 20	1267	327	45	854
Rung, Henry, assignor of one-half to Atkinson & Sykes, Rochester, N. Y. Paper file	387,600	Aug. 7	621	161	44	691
Runkel, John P., Milwaukee, Wis. Car-coupling	376,161	Jan. 10	627	168	42	131
Runkel, John P., Milwaukee, Wis. Automatic door for elevator-wells	381,083	June 5	356	101	43	1189
Runkle, Benjamin P. (See Piatt, William M., assignor.)						
Runnals, Nathaniel B., assignor of one-half to H. J. Bracket and N. C. Smith, Pittsfield, Me. Mallet	393,789	Dec. 4	79	22	45	1088
Runnels, Darius A., Lizton, Ind. Hog-tendon cutter	379,286	Mar. 13	616	168	42	1088
Runyan, John S., Columbus, Ohio. Catch basin and trap for sewers	391,339	Oct. 16	1624	430	45	327
Runyon, Archibald S., assignor of one-half to J. H. Morgan, St. John, Mo. Wire-stretcher	375,956	Jan. 3	311	83	42	64
Runyon, Edwin E., Mountain Spring, Tex. Suspension-bridge	394,940	Dec. 18	1881	466 487	45	1453
Ruperti, Henri. (See Gräbner and Ruperti.)						
Ruppel, Henry. (See Dangler and Ruppel.)						
Ruppel, Henry, assignor to Schneider & Trenkamp, Cleveland, Ohio. Vapor-burner	375,957	Jan. 3	312	83	42	64
Ruppel, Henry, assignor to Schneider & Trenkamp, Cleveland, Ohio. Plumber's furnace	379,986	Mar. 27	1682	449	42	1312
Ruppel, Henry, and D. E. Dangler, Cleveland, Ohio. Vapor-burner	389,322	Sept. 11	799	203 204	44	1232
Ruse, Joseph. (See Foley, James S., assignor.)						
Rush, David L., Hazlehurst, Miss. Wheel	394,511	Dec. 11	1145	297	45	1298
Rush, George W., and J. J. Weightman; said Weightman assignor to J. J. Weightman, Jr., Bridgeton, N. J. Trunk-brace	392,525	Nov. 6	512	129	45	692
Rush, John. (See Rush, William and J.)						
Rush, John, and E. Oldfield, Norwich, Conn. Electric stopping mechanism for looms	384,934	June 19	1627	423	43	1447
Rush, John G., West Willow, Pa. Portable trestle	381,510	Apr. 17	1827	483	43	373
Rush, Madison. (See Goldenmeyer, Charles A., assignor.)						
Rush, William and J. Shelburne Falls, Mass. Box-fastener	387,260	Aug. 7	90	23	44	589
Rushforth Feed Water Heater Company. (See Rushforth, William H., assignor.)						
Rushforth, William H., Rutherford Park, N. J., assignor to Rushforth Feed Water Heater Company, New York, N. Y., and Jersey City, N. J. Feed-water heater	391,389	Oct. 16	1697	449	45	310
Rushforth, William H., Rutherford Park, N. J., assignor to Rushforth Feed Water Heater Company, Jersey City, N. J., and New York, N. Y. Feed-water heater	391,390	Oct. 16	1698	449	45	340
Rushton, John H., Canton, N. Y. Locking steering-gear	383,593	May 29	2561	677	43	1037
Rushton, John H., Canton, N. Y. Boom-fastening	383,594	May 29	2562	678	43	1037
Rushville School Furniture Company. (See Murray, Eli, assignor.)						
Russ, Norman W., London, England. Coin-operated electrical apparatus	382,734	May 15	1292	333 339 340	43	776
Russel, Robert F., Abilene, Kans. Hame attachment	384,084	June 5	357	101	43	1189
Russel, Robert F., Abilene, Kans. Hame-tug	381,085	June 5	358	101	43	1189
Russell, Charles W., assignor of one-half to J. L. Drake, Providence, R. I. Mast-arm for electric lights	392,228	Nov. 6	75	18	45	608
Russell Counter Company. (See Russell, Lewis B., assignor.)						
Russell Cutlery Company. (See Axtell, Henry A., assignor.)						
Russell, Edward H., Park City, Utah Ter. Treating ores and metallurgical products	381,849	Apr. 24	2332		43	488
Russell, Edward H., Park City, Utah Ter. Treating ores and metallurgical products	381,850	Apr. 24	2334		43	488
Russell & Erwin Manufacturing Company. (See Cooley and Burgess, assignors.)						
Russell & Erwin Manufacturing Company. (See Elmi, William H., assignor.)						
Russell & Erwin Manufacturing Company. (See Russell, Henry E., Jr., assignor.)						
Russell, Frank, Stonham, Mass. Lamp-wick attachment	389,171	Sept. 4	566	142	44	1176
Russell, Henry, Peoria, Ill. Eaves-trough hanger	377,405	Feb. 7	56	15	42	506
Russell, Henry E., Jr., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Transom-lifter	377,362	Jan. 31	2385	689	42	484
Russell, Henry T., Chicago, Ill. Die for making thrashing-machine teeth	379,730	Mar. 20	1274	340	42	1224
Russell, Horace, assignor of one-half to G. W. Griffin and D. A. Baker, Fayette, Ohio. Siding-gage	377,085	Jan. 31	1983	519	42	409
Russell, Howard H., Oberlin, Ohio. Reference book-mark	376,110	Jan. 10	538	143	42	114
Russell, Jacob, Brooklyn, N. Y. Machine for making building-anchors	385,140	June 26	1953	500	43	1522
Russell, James C., Beaver Falls, Pa. Manufacture of shovels, spades, &c.	376,398	Jan. 10	911	246	42	189
Russell, James C., Beaver Falls, Pa. Machine for dividing or splitting metal	376,914	Jan. 24	1734	456	42	354
Russell, John B., Detroit, Mich. Device for holding and dipping pills, &c.	389,485	Sept. 11	1037	277	44	1277
Russell, Joseph P., Banfield, Mich. Machine for making wire-and-picket fencing	394,082	Dec. 4	505	135	45	1168
Russell, Lewis B., Lynn, Mass., assignor to Russell Counter Company, Saco, Me. Counter-stiffener machine	377,468	Feb. 7	183	43	42	530
Russell, Linus E., Springfield, Ohio. Surgical table	395,001	Dec. 25	1983	512	45	1481
Russell, Louis, Cherokee, Kans. Telegraph-repeater	378,464	Feb. 28	1688	442	42	847
Russell, Marie L., Chicago, Ill. Overflow indicator	385,825	July 10	731	191	44	150
Russell, Michael J., Jersey City, N. J. Piston-packing	383,353	May 22	2054	539	43	936
Russell & Morgan Printing Company. (See Murray, Samuel J., assignor.)						
Russell, Philip G., et al. (See Whittemore, James M., assignor.)						
Russell, Samuel, Brooklyn, N. Y., assignor to Central Electrical Company, of New York. Secondary battery	383,150	May 22	1907	498	43	907
Russell, Theodore L., near Emberton, Pa. Adjustable tapered wrist-pin for cross-heads	385,526	July 3	294	75	44	59
Russell, Thomas M., Mincola, Mo. Gate	389,823	Sept. 18	1546	409	44	1382
Russell, Thomas W., Union Bridge, Md. Extension fire-ladder	388,448	Aug. 28	1936	518	44	965
Russell, Trumbull G., St. Louis, Mo. Sash-balance	383,414	May 22	2292	608	43	977
Russell, William, Hamilton, Ontario, Canada. Harvester	390,141	Sept. 25	2033	542	44	1487
Russia Cement Company. (See Brooks, Reuben, assignor.)						
Russia Cement Company. (See Kirkpatrick, John W., assignor.)						
Russom, Charles H., Springfield, Ill. Lathe	377,779	Feb. 14	678	170 171	42	639

*Alphabetical list of patents—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Rust, Armistead, U. S. Navy. Reel life-buoy .....	385,323	June 26	2235	{ 572 573 }	43	1577
Rust, Theodore S., Meriden, Conn., assignor to Scovill Manufacturing Company, New York, N. Y. Photographic camera .....	382,735	May 15	1295	340	43	777
Rutan, Thomas B. (See Dubey, Edward A., assignor.) .....						
Rutb, John A., Baltimore, Md. Wagon .....	387,816	Aug. 14	927	240	44	757
Rutherford, Reuben C., and F. S. Bartram, New York, N. Y. Filling device for fountain pens or tubes .....	378,524	Feb. 28	1768	468	42	865
Rutherford, S. Park, <i>et al.</i> (See Wilson, David Y., assignor.) .....						
Ruthmann, John W., Elmwood Place, Ohio. Folding cot .....	395,295	Dec. 25	2439	627	45	1566
Rutledge, John W., Shannondale, Ind. Gate .....	380,636	Apr. 3	489	137	43	100
Rutledge, John W., Shannondale, Ind. Gate .....	370,623	Oct. 2	587	{ 155 156 }	45	118
Rutledge, William O., Galveston, Tex. Car-coupling .....	384,217	June 5	555	153	43	1228
Rutledge, William O., Galveston, Tex. Car-uncoupling device .....	394,301	Dec. 11	844	224	45	1241
Ruton, Hiram W., <i>et al.</i> (See Gore, Henry A., assignor.) .....						
Rutt, Levi M. (See Gamble and Rutt.) .....						
Rutter, Nathaniel P., Waltham, Mass. Electro-therapeutic cap .....	389,764	Sept. 18	1465	384	44	1365
Rutter, Robert, Butte City, Mont. Ter. Tire-upsetting machine .....	381,085	Apr. 10	1201	322	43	241
Rutzler & Blake. (See Blake, George W., assignor.) .....						
Rutzler & Blake. (See Rutzler, Enoch, assignor.) .....						
Rutzler, Enoch, Brooklyn, assignor to Rutzler & Blake, New York, N. Y. Trap for exhaust-steam pipes .....	379,542	Mar. 13	989	266	42	1160
Ryan, Andrew, New York, N. Y. Folding rule .....	376,165	Jan. 10	629	168	42	132
Ryan, Cornelius J., <i>et al.</i> (See Barber and Finigan, assignors.) .....						
Ryan, Daniel W. (See Fietsch, Herman, Jr., assignor.) .....						
Ryan, Edward M., Brooklyn, N. Y. Flesh-brush .....	390,142	Sept. 25	2025	542	44	1487
Ryan, Edward T., New Bedford, Mass. Head-rest .....	379,987	Mar. 27	1684	450	42	1312
Ryan, Frederick, Fitchburg, Mass. Lounge .....	386,163	July 17	1220	326	44	254
Ryan, Harris J. (See Anthony, Jackson, and Ryan.) .....						
Ryan, John, assignor of one-half to M. J. Sheahan, Toronto, Ontario, Canada. Apparatus for hoisting and moving earth .....						
Ryan, Laurence F., New York, N. Y. Folding tent .....	385,527	July 3	295	76	44	60
Ryan, Lawrence C., Hawkinsville, Ga. Bale-tie .....	378,977	Mar. 6	159	46	42	997
Ryan, Matthew, Washington, D. C. Anti-friction axle .....	379,878	Mar. 20	1528	403	42	1272
Ryan, Michael, Chicago, Ill. Book-binding .....	378,978	Mar. 6	160	46.47	42	998
Ryan, William B., Boston, Mass. Return-vent protector for plumbers' traps .....	379,334	Mar. 13	683	185	42	1101
Ryden, Melker F. (See Qvarnström, Carl, assignor.) .....	387,961	Aug. 14	1162	315	44	803
Ryder, Henry M., assignor of one-half to L. E. White, Taunton, Mass. Wrench .....	380,353	Apr. 3	75	24	43	18
Ryder, J. Franklin. (See Lombard, Levi W., assignor.) .....						
Ryder, Joshua H., assignor of one-third to G. V. Scott, Brockton, and G. H. Doten, Plymouth, Mass. Heel-heading machine .....	388,790	Aug. 28	2422	653	44	1058
Ryder, Thomas F. (See Reilly, Christopher P., assignor.) .....						
Ryer, Benjamin F. (See Green, William W., assignor.) .....						
Ryer, George W. (See Thompson, Henry D., assignor.) .....						
Ryfenburgh, Lewis M., assignor to P. S. S. Ackerman, Brooklyn, N. Y. Coin-operated lock for receptacles .....	390,622	Oct. 2	586	155	45	118
Ryland, Alston L., <i>et al.</i> (See Stephens, Lawrence, assignor.) .....						
Rylands, Dan, Stairfoot, near Barnsley, county of York, England. Forming indents, &c., in internally-stoppered bottles .....	376,915	Jan. 24	1735	456	42	354
Rylands, Dan, Stairfoot, near Barnsley, county of York, England. Internally-stoppered bottle .....	376,916	Jan. 24	1736	456	42	354
Ryo, Alphonse, Roubaix, Nord, France. Doubling-winding machine .....	389,172	Sept. 4	567	{ 143 144 }	44	1176
Saalfrank, Christian G. (See Taylor and Saalfrank.) .....						
Sabens, Stephen B., New Bedford, Mass. Railway-switch .....	385,141	June 26	1956	{ 500 501 }	43	1522
Sahley, George A., <i>et al.</i> (See Hand, Ekus, assignor.) .....						
Sabine, Hylas, Richmond, assignor of one-half to L. C. Newsom, Columbus, Ohio. Car-coupling .....	380,936	Apr. 10	955	{ 253 254 }	43	195
Sabold, John, Boyertown, Pa. Detachable handle for sad-irons .....	379,416	Mar. 13	804	216	42	1125
Sabotka, Gustav, J. Blumer, Brooklyn, and W. M. Davis, Long Island City, N. Y. Preparing mashes in beer-making .....	386,268	July 17	1388	366	44	285
Sacanville, Leopold, New York, N. Y. Corset-fastener .....	392,639	Nov. 13	684	171	45	732
Sachs, William, Berlin, assignor of one-half to L. Dill, Frankfurt-on-the-Main, Germany. Suspenders .....	392,526	Nov. 6	513	129	45	692
Sack, Christian R., Leipsic, Germany. Steam-cultivator .....	386,161	July 17	1218	325	44	254
Sack, Christian R., Leipsic, Germany. Plow-carriage for steam-cultivators .....	386,162	July 17	1219	326	44	254
Sackett, Howard T. (See Trowbridge, Frank, assignor.) .....						
Sackett, Orville R. (See Edwards and Sackett.) .....						
Sadler, Clarence W., <i>et al.</i> (See Coyle, James, assignor.) .....						
Saeger, Sallie A., Allentown, Pa. Button-hole tab .....	388,075	Aug. 21	1339	361	44	846
Saegmuller, George N., Washington, D. C. Equatorial mounting for telescopes .....	395,002	Dec. 25	1985	512	45	1482
Safely, George W. H., New Orleans, La. Bran-remover .....	384,719	June 19	1318	344	43	1388
Safety Car Heating and Lighting Company. (See Wilder, Francis M., assignor.) .....						
Safety Hatch-Door Company. (See Herman, Emile J., assignor.) .....						
Safety Hatch-Door Company. (See Thackston, Richard D., assignor.) .....						
Safety Insulated Wire and Cable Company. (See Requa, Leonard F., assignor.) .....						
Safford, Fred H. (See Pedrick, Knott H., assignor.) .....						
Safford, Truman C. (See Hodgson and Safford.) .....						
Sage, Charles L., assignor to Wilcox, Crittenden & Co., Middletown, Conn. Casting hooks into eyes .....	390,907	Oct. 9	992	260	45	201
Sage, Harman A., Aurora, Dak. Ter. Automatic railway-switch .....	393,666	Nov. 27	2197	{ 576 577 }	45	1048
Sage, John C., Atlanta, Ga. Grading and ditching machine .....	378,406	Feb. 21	1595	419	42	822
Sage, William, Boston, Mass. Ice-creeper .....	377,410	Feb. 7	142	32	42	521
Sagendorph, Frank E., assignor of one-half to E. S. Lloyd, Chicago, Ill. Sheet-metal roof .....	378,725	Feb. 28	2056	542	42	920
Sagendorph, Longley L., assignor of one-half to H. P. Lloyd, Cincinnati, Ohio. Machine for shearing or punching sheet metal .....	377,780	Feb. 14	680	171	42	640
Sagendorph, Longley L., assignor of one-half to H. P. Lloyd, Cincinnati, Ohio. Crimping-tongs .....	387,658	Aug. 14	701	180	44	714
Sagendorph, Longley L., assignor of one-half to H. P. Lloyd, Cincinnati, Ohio. Cleat for metallic roofing .....	390,806	Oct. 9	845	225	45	174
Sagendorph, Longley L., Cincinnati, Ohio, assignor of one-half to C. N. Harder, Philmont, N. Y. Metallic ceiling .....	391,821	Oct. 30	2305	625	45	482

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. te.	Vol.	Page.
Sagendorph, Longley L., and G. C. Keene, assignors of one-third to H. P. Lloyd, Cincinnati, Ohio. Power shearing-machine.....	377,500	Feb. 7	233	56, 57	42	540
Sahler, Carl, assignor to F. A. Herbertz, Cologne, Germany. Cupola-furnace.....	386,269	July 17	1389	366	44	285
Sahler, Carl, assignor to F. A. Herbertz, Cologne, Prussia, Germany. Grate.....	390,191	Sept. 25	2110	562	44	1502
Sailor, David A., assignor to D. E. Jones, Little Rock, Ark. Exhaust-fan.....	394,400	Dec. 11	992	260	45	1270
Saladee, Charles W., Freeport, Ill., assignor to C. W. Saladee, Cleveland, Ohio. Wagon-gear.....	379,417	Mar. 13	805	217	42	1125
Saladee, Cyrus W. (See Saladee, Charles W., assignor.)						
Saladee, Cyrus W., Cleveland, Ohio. Spring for vehicles.....	376,755	Jan. 24	1488	392	42	308
Salenins, Erik G. N., Stockholm, Sweden. Magazine-gun.....	386,679	July 24	1953	516	44	406
Salisbury, Henry B. (See Wemple, John V., assignor.)						
Salisbury, Levi E., Providence, R. I. Circular-knitting machine.....	379,819	Mar. 20	1420	{ 377 378 }	42	1252
Salisbury, Levi E., Providence, R. I. Knit fabric.....	385,481	July 3	222	58	44	44
Salisbury, Wilber S., Chicago, Ill. Electric motor for street-cars.....	385,727	July 10	589	153	44	132
Salisbury, Wilber S., Chicago, Ill. Motor for street-cars.....	394,015	Dec. 4	407	{ 109 110 }	45	1149
Sally, John, et al. (See Taylor, Miles D., assignor.)						
Salmon, Samuel. (See Coxo and Salmon.)						
Salom, Pedro G. (See Morris and Salom.)						
Salomon, Mathilda. (See Janson, Louis, assignor.)						
Salomon, Siegmund L., New York, N. Y. Garment-protector.....	376,210	Jan. 10	692	184	42	142
Salter, Charles, et al. (See Carey, William, assignor.)						
Salter, George, and J. Walker, West Bromwich, England. Velocipede-saddle.....	384,473	June 12	935	243	43	1307
Salter, Thomas E., and J. Hughes, West Bromwich, county of Stafford, England. Spring-scale.....	390,522	Oct. 2	458	119	45	93
Saltonstall, Leverett. (See Hazelton, Ivory, assignor.)						
Salitzkorn, Emil, and L. J. F. Nicolai, Dresden, Germany. Wrapper-plaiting machine.....	386,932	July 31	2385	627	44	495
Salzor, Henry, Baltimore, Md. Food package and preparing the same.....	384,720	June 19	1319		43	13-8
Salzer, Henry, Baltimore, Md. Preserving food.....	384,721	June 19	1320		43	13-8
Sammons, Benjamin F., assignor of one-half to T. Dobbins, Cunningham, Mo. Air-jet.....	379,543	Mar. 13	990	266	42	1160
Sample, James, Newcastle-upon-Tyne, county of Northumberland, assignor of one-half to R. R. E. Drake-Brockman, London, England. Life-saving buoy-boat.....	385,961	July 10	927	245	44	189
Samson, Allen, Victoria, Tex. Horse-power.....	388,586	Aug. 28	2128	572	44	1002
Sampson, John B., et al. (See Symons, James, assignor.)						
Sampson, Luther B., Rochester, N. H. Car-coupling.....	382,390	May 8	774	196	43	666
Samuel, Leopold S., Newark, N. J. Soap-cake.....	393,928	Dec. 4	287	78	45	1127
Samuel, Lewis T. (See Hirsch, Feodor, assignor.)						
San José Agricultural Works. (See Campbell, Guy W., assignor.)						
Sanborn, Darius S., Norway, H. and E. Sanborn, Paris, assignors to Union Grapple Company, Norway, Me. Grapple.....	389,856	Sept. 18	1613	426	44	1394
Sanborn, Ellet. (See Sanborn, Darius S., H., and E.)						
Sanborn, Franklin P., Standish, Me. Shingler's gage.....	390,403	Oct. 2	293	77	45	62
Sanborn, Horace. (See Sanborn, Darius S., H., and E.)						
Sanchez, José, Mexico, Mexico. Exercising-machine.....	382,440	May 8	847	216	43	680
Sandage, Joshua, South Bend, Ind. Drop-hammer.....	376,111	Jan. 10	539	{ 143 144 }	42	115
Sandberg, Carl M. and C. D. R., McPherson, Kans. Cultivator.....	393,667	Nov. 27	2201	577	45	1049
Sandberg, Christian D. R. (See Sandberg, Carl M. and C. D. R.)						
Sandell, Gustaf, assignor to Eagle Pencil Company, New York, N. Y. Automatic holder for lead crayons.....	394,401	Dec. 11	994	{ 260 261 }	45	1271
Sandell, Gustaf R., assignor to Eagle Pencil Company, New York, N. Y. Automatic holder for pencil-leads.....	394,016	Dec. 4	409	110	45	1149
Sanders, Alfred M., Morristown, Tenn. Stove.....	393,269	Nov. 20	1592	418	45	919
Sanders, Amos, North Vernon, Ind. Receptacle for containing classified bills, letters, or samples.....	379,665	Mar. 20	1176	312	42	1204
Sanders, Densmore H., et al. (See Andersson, Charles E., assignor.)						
Sanders, George A. (See Newman, Nelson, assignor.)						
Sanders, George A. (See Newman and Sanders.)						
Sanders, Hampton S., Magnolia, Ark. Car-coupling.....	385,204	June 26	2046	523	43	1540
Sanders, J. E., et al. (See Gardner, John H., assignor.)						
Sanders, James E., Union City, Tenn. Horse-detacher and wagon-brake.....	391,920	Oct. 30	2446	661	45	511
Sanders, John C. (See Spencer and Sanders.)						
Sanders, Louis, Brooklyn, N. Y. Belt-clasp.....	391,197	Oct. 16	1432	383	45	292
Sanders, Oliver P., Terre Haute, Ind., assignor of one-half to A. G. Brandner, Kansas City, Mo. Car-motor.....	379,129	Mar. 6	387	110	42	1039
Sanders, William R. (See Park and Sanders.)						
Sanders, Wiltshire, and J. B. Rafferty, Reno, Nev. Hand-truck.....	391,560	Oct. 23	1929	520	45	397
Sanderson, Charles C. (See Moody, Benjamin A., assignor.)						
Sanderson, Frederick, Prospect Park, Ill. Door or alarm bell.....	385,574	July 3	364	95	44	73
Sanderson, Frederick, Prospect Park, Ill. Door-bell.....	386,164	July 17	1222	{ 326 327 }	44	254
Sanderson, Frederick, Prospect Park, and E. H. Winchell, Norwood Park, Ill. End-gate.....	391,275	Oct. 16	1543	409	45	312
Sanderson, Herbert H., et al. (See Wilkins, George H., assignor.)						
Sanderson, Perry P. (See Brierly and Sanderson.)						
Sandford, George T., Kinston, N. C. Case for transporting fish-eggs.....	376,553	Jan. 17	1171	308	42	239
Sandford, Mark E., et al. (See Rink, Richard L., assignor.)						
Sandon, Joseph, Virginia City, Mont. Ter. Ore-concentrator.....	379,418	Mar. 13	806	217	42	1125
Sands, Jesse, Bridgeport, Conn. Automatic fan for cars.....	394,402	Dec. 11	996	261	45	1271
Sands, Joseph H., et al. (See Pritchard and Templeton, assignors.)						
Sands, Josias J., Merton, Wis. Street-car-heating device.....	395,081	Dec. 25	2093	{ 542 543 }	45	1505
Sandwich Enterprise Company. (See Beal, Thomas W., assignor.)						
Sanford, Albert, Oshkosh, Wis. Hook.....	387,109	July 31	2630	692	44	542
Sanford, Albert, Oshkosh, Wis. Cold shut or open link.....	387,110	July 31	2631	692	44	542
Sanford, Albert, Oshkosh, Wis. Toe-ring for cant-hooks.....	389,941	Sept. 25	1740	461	44	1427
Sanford, Charles E. (See Roberts and Sanford.)						
Sanford, Gelston C., et al. (See Sanford, William R., assignor.)						
Sanford, George D., Peekskill, N. Y. Hot-air furnace.....	384,789	June 19	1414	371	43	1408
Sanford, Richard, Providence, R. I. Hook.....	386,850	July 31	2264	596	44	471
Sanford, William C., Amsterdam, N. Y. Spinning-machine, &c.....	376,631	Jan. 24	1621	424	42	331
Sanford, William E., assignor of two-thirds to F. B. Mallory, Flemington, N. J., and G. C. Sanford, Brooklyn, N. Y. Combined hand crusher and grinder.....	386,165	July 17	1223	327	44	255
Sangster, Charles H. (See Finn and Sangster.)						
Sangster, James, assignor to himself and J. B. Rose, Buffalo, N. Y. Breast-drill.....	391,391	Oct. 16	1700	450	45	341

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Sankey, John W., Wintersdorf, Wolverhampton, England. Gridiron .....	389,602	Sept. 18	1226	320	44	1318
Sansum, Oliver B., <i>et al.</i> (See Keller, Henry R., assignor.)						
Santy, Louis P., Clements, Kans. Fire-escape .....	391,561	Oct. 23	1930	520	45	397
Sargeant, Edmund K., Brockville, Ontario, Canada. Machine for making coffee .....	382,111	May 1	349	92	43	577
Sargeant Manufacturing Co. (See Johnson, Henry, assignor.)						
Sargeant Manufacturing Company. (See Grummon, Robert S., assignor.)						
Sargeant Manufacturing Company. (See Johnson and Jacobus, assignors.)						
Sargeant, T. B. (See Braddock, Warren L., assignor.)						
Sargent, Allan C. (See Sargent, Frederick G. and A. C.)						
Sargent & Company. (See Bradford, Purmort, assignor.)						
Sargent & Company. (See Sargent, Henry B., assignor.)						
Sargent & Company. (See Shaw, John H., assignor.)						
Sargent & Company. (See Shaw and Giffillan, assignors.)						
Sargent & Company. (See Sparks, William E., assignor.)						
Sargent, Frederick G., Graniteville, Mass. Machine for dusting fiber .....	394,017	Dec. 4	411	{ 110 111 }	45	1150
Sargent, Frederick G. and A. C., Graniteville, Mass. Machine for burring wool .....	393,588	Nov. 27	2071	542	45	1024
Sargent, Henry B., assignor to Sargent & Company, New Haven, Conn. Manufacture of door-keys .....	383,012	May 15	1688	439	43	854
Sargent, James F., Manchester, N. H. Dental plate .....	385,142	June 26	1957	501	43	1523
Sargent, John N., Aurora, assignor to himself and G. H. Wymond, Dearborn County, Ind. Draw-band .....	381,426	Apr. 17	1693	454	43	347
Sargent, Warren E., Newburyport, Mass. Relasting-machine .....	385,376	July 3	54	16	44	13
Sargent, William B., San Francisco, Cal. Necktie-fastener .....	383,993	June 5	226	66	43	1164
Sargent, William H., Weymouth, Mass. Filtering-faucet .....	383,493	May 29	2425	644	43	1010
Sargent, Zebadiah, Rochester, N. H., M. Chase and A. W. Cram, Haverhill, assignors to themselves and S. P. Bancroft, Swampscott, Mass. Grate .....	391,082	Oct. 16	1274	339	45	261
Sassack, William, Brooklyn, N. Y. Roundabout .....	384,393	June 12	831	216	43	1286
Sauder, John M., Bloomsburg, Pa. Seat or back fastening for furniture .....	378,219	Feb. 21	1311	348	42	770
Sauer, Joseph W., Milwaukee, Wis. Ball-catcher's glove .....	385,728	July 10	592	153	44	123
Sauer, Richard. (See Switzer, Leroy, assignor.)						
Sauer, William D., Ashton, Iowa. Four-horse evener .....	380,522	Apr. 3	328	94	43	67
Saunders, Alexander, Yonkers, N. Y. Combined pipe cutting and threading tool .....	380,937	Apr. 10	957	254	43	195
Saunders, Alfred D., Brooklyn, N. Y. Spring-motor .....	382,556	May 8	1030	263	43	716
Saunders, Alfred D., Brooklyn, N. Y. Mail-conveying apparatus .....	383,771	May 29	2838	{ 746 747 }	43	1092
Saunders, Augustus M., McKeesport, Pa. Pipe-welding ball .....	387,659	Aug. 14	702	180	44	714
Saunders, Frank. (See Sloan, John J., assignor.)						
Saunders, George W., New York, N. Y. Two-wheeled vehicle .....	390,313	Oct. 2	155	43	45	34
Saunders, Harry, Toledo, Ohio, and E. C. Ranch, Monroe, Mich. Felt-boot protector .....	380,823	Apr. 10	779	213	43	163
Saunders, John A., Warrenton, Va. Nut-lock .....	376,347	Jan. 10	880	230	42	178
Saunders, Samuel L., Lynn, Mass. Rack for holding boots and shoes .....	380,938	Apr. 10	959	255	43	195
Saunders, Thomas, and W. H. Patton, Pueblo, Colo. Heating and lighting cars .....	394,018	Dec. 4	412	111	45	1150
Saunders, Thomas H., Boston, Mass. Scrubbing-brush .....	393,522	Nov. 27	1982	518	45	1005
Saunders, William L., assignor to Ingersoll Rock Drill Company, New York, N. Y. Combined drilling, channeling, and gadding machine .....	394,212	Dec. 11	697	{ 186 187 }	45	1213
Savage, Arthur W., assignor to M. Hartley, New York, N. Y. Magazine fire-arm .....	378,525	Feb. 28	1771	468	42	866
Savage, Edmund, Albany, N. Y. Car-coupling .....	395,177	Dec. 25	2261	580	45	1533
Savage, Richard. (See Jancey, William L., assignor.)						
Savage, Richard, San Francisco, Cal. Heating and cooking range .....	392,462	Nov. 6	426	106	45	675
Savage, Richard, San Francisco, Cal. Fire-place .....	393,178	Nov. 20	1454	{ 379 380 }	45	892
Savage, Robert H., Reading, Pa. Hat-block .....	390,404	Oct. 2	294	77	45	62
Savene, John W., Toledo, Ohio. Metallic wheel .....	377,579	Feb. 7	340	88	42	561
Sawtelle, Herbert H., Lowell, Mass. Brush-holder .....	391,083	Oct. 16	1275	339	45	261
Sawyer, Albert. (See Tenney, Charles L., assignor.)						
Sawyer, Albert H., North Weare, N. H. Sleigh .....	394,726	Dec. 18	1510	{ 394 395 }	45	1383
Sawyer, Andrew W., Providence, R. I. Cuff-holder .....	384,722	June 19	1321	345	43	1388
Sawyer, Andrew W., Providence, R. I. Cuff-holder .....	390,908	Oct. 9	994	260	45	201
Sawyer, Charles H., Minneapolis, Minn. Wheeled scraper .....	389,251	Sept. 11	697	{ 177 178 }	44	1213
Sawyer, Charles H., assignor of one-half to H. A. Smith, Minneapolis, Minn. Wheel-scraper .....	380,354	Apr. 3	76	24, 25	43	18
Sawyer, George C., Canton, N. Y. Fruit-jar .....	386,566	July 24	1820	481	44	379
Sawyer, George H., Lemoille, Ill. Disk barrow .....	379,287	Mar. 13	616	169	42	1088
Sawyer, George H., Lemoille, Ill. Sully attachment for plows .....	379,288	Mar. 13	618	169	42	1088
Sawyer, George M., Glens Falls, N. Y. Fastening for lacing-cords .....	380,523	Apr. 3	329	94	43	67
Sawyer, Henry, <i>et al.</i> (See Hamblin, Silvanus and S. M., assignors.)						
Sawyer, Howard D. (See Post and Sawyer.)						
Sawyer, Lewis J., assignor of one-half to N. Sawyer, Columbus, Wis. Eaves-trough brace .....	387,001	Aug. 7	622	161	44	692
Sawyer, Nelson. (See Sawyer, Lewis J., assignor.)						
Sawyer Spindle Company. (See Logan, Thomas H., assignor.)						
Sawyer Spindle Company. (See Wood, Aurin, assignor.)						
Sawyer Spindle Company. (See Wood, Aurin, assignor.) (Reissue.)						
Sawyer, Walter H. (See Martin, Alfred S., assignor.)						
Sawyer, Willard W., Springfield, Mass., and W. A. Force, Brooklyn, N. Y. Hand-stamp .....	392,229	Nov. 6	76	19	45	609
Sawyer, William H., Providence, R. I. Machine for dressing covered electrical conductors .....	380,053	Mar. 27	1787	{ 477 478 }	42	1331
Sawyer, William H., Providence, R. I. Apparatus for threading wires or cords through flexible tubes .....	380,054	Mar. 27	1789	478	42	1331
Sawyer, William H., Providence, R. I. Lubricating wire .....	380,055	Mar. 27	1791	478	42	1331
Sawyer, William H., Providence, R. I. Machine for spooling wire .....	385,684	July 3	523	{ 136 137 }	44	102
Sawyer, William H., Providence, R. I. Machine for covering wire .....	386,561	July 24	1822	{ 481 482 }	44	379
Sawyers, Ethan A. (See Latham, Ephraim, assignor.)						
Sawyer, Reuben A., Columbus, Ohio. Bridge .....	381,584	Apr. 24	1929	{ 508 509 }	43	410
Sawyer, Reuben A., Columbus, Ohio. Draw-bridge .....	389,980	Sept. 25	1794	476	44	1437
Sax, Julius, Bedford Square, county of Middlesex, England. Signaling device .....	391,276	Oct. 16	1544	400	45	312
Saxe, John L., Waterbury, Conn., N. M. Seelye, Cambridge, and F. W. Coy, Boston, Mass., said Seelye and Coy assignors to said Saxe. Riveting-machine .....	377,051	Jan. 31	1918	{ 504 505 }	42	396

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Des.	Vol.	Page.
Saxman, Peter H., Latrobe, Pa. Grain binder	390,709	Oct. 9	710	188	45	149
Saxon, Silas J., and W. H. James, Colfax, Wash. Ter. Fence-post	391,198	Oct. 16	1132	383	45	292
Saxton, Charles S. (See Young, Christie L., assignor.)						
Saxton & Phillips. (See Johnson, Edwin T., assignor.)						
Saxton, Samuel W., New York, N. Y. Holder for eyeglasses	392,367	Nov. 6	243	72	45	648
Saybold, Charles, et al. (See Beisel, Franklin P., assignor.)						
Sayers, John. (See Kennedy, Herman N., assignor.)						
Sayle, George M. (See Lyon, Algernon J., assignor.)						
Sayre, Charles E. (See Hilton, Joseph, assignor.)						
Sayre, Marcus, Montrose, N. J. Linckiln	375,896	Jan. 3	224	61	42	48
Sayre, Marcus, Newark, N. J. Linckiln	375,897	Jan. 3	225	61, 62	42	48
Sayre, Theodore J., Newark, N. J. Fur-blower	378,632	Feb. 28	1909	505	42	893
Sayre, Reuben H., New Martinsville, assignor of two-thirds to T. W. and J. W. Carroll, Keyser, W. Va. Gate	382,906	May 15	1521	398	43	823
Scales, Charles H., Toronto, Ontario, Canada. Suspender attachment	382,834	May 15	1422	373	43	803
Scales, Edward A., Lowell, Mass., assignor to American Electric Register Company, Portland, Me. Electric fare-register	389,857	Sept. 18	1614	{ 426 427 }	44	1394
Scales, Samuel H. (See Baldwin, Henry D., assignor.)						
Scales, William S., Somerville, Mass., assignor to Synchronous Time Company, Portland, Me. Electric regulating and hand-setting mechanism for clocks	392,230	Nov. 6	78	19	45	609
Seannell, Michael W., Kansas City, Mo. Sink-trap	394,213	Dec. 11	701	187	45	1214
Scarborough, William D., Pennington, Tex. Door-check	387,738	Aug. 14	820	212	44	736
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire-netting machine	380,664	Apr. 3	534	{ 147 148 }	43	107
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire-netting machine	380,665	Apr. 3	540	148	43	109
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Mechanical movement	380,666	Apr. 3	543	149	43	109
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire twisting and winding mechanism	380,667	Apr. 3	544	149	43	109
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire-netting	385,143	June 26	1958	501	43	1523
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire fence	385,729	July 10	393	154	44	123
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Metallic lathing	387,740	Aug. 14	825	213	44	736
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire-netting	388,450	Aug. 28	1222	332	44	816
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire fence	388,311	Aug. 21	1732	463	44	921
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Metallic lathing	388,449	Aug. 28	1938	519	44	966
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire fence	388,451	Aug. 28	1939	519	44	966
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire fence	388,451	Aug. 28	1940	519	44	966
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Metallic lathing	388,949	Sept. 4	168	45	44	1104
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Metallic lathing	388,920	Sept. 4	169	45	44	1105
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Wire fence	390,257	Oct. 2	85	24	45	20
Scarles, Benjamin, assignor to Clinton Wire Cloth Company, Clinton, Mass. Metallic lathing	394,403	Dec. 11	997	261	45	1271
Scarles, Benjamin, assignor of one-half to Clinton Wire Cloth Company, Clinton, Mass. Machine for the manufacture of wire-netting	387,739	Aug. 14	821	{ 212 213 }	44	736
Scarles, Benjamin, assignor of one-half to C. Swinscoe, Clinton, Mass. Battery-zinc	388,312	Aug. 21	1733	463	44	921
Scates, Edward C. (See Hendrick, William L., assignor.)						
Scates, George R., Knoxville, Tenn. Furnace	376,785	Jan. 24	1546	{ 406 407 }	42	319
Scelles, Gustave, Paris, France. Machinery for winding sewing-thread on flat bobbins	395,178	Dec. 25	2263	580	45	1533
Schaab, John J., St. Louis, Mo. Pipe-thimble	386,166	July 17	1234	337	44	255
Schaaf, Michael F., Mineral Point, Wis. Post-driving machine	387,369	Aug. 7	260	66	44	622
Schaal, Eugen, Stuttgart, Württemberg, Germany. Manufacture of artificial copal	382,907	May 15	1523		43	824
Schaarwächter, Hermann, Barmen-Rittershausen, Prussia, Germany. Pasteurizing beer, wine, &c	388,153	Aug. 21	1494	397	44	873
Schad, Barnhard, assignor of five-sixths to J. C. and F. J. Shults, L. M. Hackley, and L. E. Smith, Batavia, N. Y. Broom holder or support	391,429	Oct. 23	1752	469	45	359
Schaefer, Charles A., West Bend, Wis. Shoe	393,589	Nov. 27	2073	542	45	1024
Schaefer, William G. (See Fowler and Schaefer.)						
Schaeffer, Carl, and G. Oehlmann, Berlin, Germany. Lubricator	395,179	Dec. 25	2264	580	45	1533
Schadler, Ludwig, Vienna, Austria-Hungary. Appliance for self-massage	376,968	Jan. 24	1802	474	42	367
Schaghticoke Powder Company et al. (See Olds, Chauncey J., assignor.)						
Schäbber, John G., Clay City, Ind. Post for veranda-railings	387,660	Aug. 14	703	181	44	714
Schaler, Michael D., Lowell, N. Y. Seat-fastener	395,180	Dec. 25	2266	581	45	1534
Schanschiff, Alexander, Gipsy Hill, county of Surrey, assignor to Schanschiff Electric Battery Syndicate, London, England. New mercuric salt for battery-fluids	379,820	Mar. 20	1425		42	1253
Schanschiff, Alexander, Gipsy Hill, county of Surrey, assignor to Schanschiff Electric Battery Syndicate, London, England. Galvanic battery	379,911	Mar. 20	1576	415	42	1280
Schanschiff Electric Battery Syndicate. (See Schanschiff, Alexander, assignor.)						
Schardt, Benjamin, assignor of one-half to J. R. Fletcher, Dayton, Ohio. Fastener for cog-wheel keys	392,972	Nov. 13	1167	303	45	827
Schardt, Benjamin, and G. Jones, assignor of one-third to J. R. Fletcher, Dayton, Ohio. Electric arc-light support	388,723	Aug. 28	2327	627	44	1040
Scharf, Samuel R., Washington, D. C. Grate-dumping apparatus	392,137	Oct. 30	2784	756	45	577
Scharff, Leopold. (See Alfian and Scharff.)						
Schartan, Elbert O., Philadelphia, Pa. Regenerating exhaust-steam	381,172	Apr. 17	1329	355	43	275
Schattels, Alexander. (See Klein and Schattels.)						
Schaner, Edward J., assignor to W. P. Butler, Chicago, Ill. Vapor-burner	389,412	Sept. 11	334	245	44	1257
Schauffelberger, Rudolph. (See Fürst and Schauffelberger.)						
Scherer, Henry C. (See Maurer, Ludwig, assignor.)						
Scheffauer, Rupert, assignor to Weber & Scheffauer, Dresden, Saxony, Germany. Insulating electric conductors	377,118	Jan. 31	2030	531	42	418
Scheffauer, Rupert, assignor to Weber & Scheffauer, Dresden, Saxony, Germany. Electric arc lamp	394,791	Dec. 18	1629	{ 426 427 }	45	1407
Scheffler, Frederick A., Erie, Pa., and T. Scheller, Paterson, N. J., assignors to Erie City Iron Works, Erie, Pa. Steam-engine governor	386,036	July 10	1030	273	41	210
Scheffler, Theodore. (See Scheffler, Frederick A. and T.)						
Scheffold, Frank, assignor to N. T. De Pauw, New Albany, Ind. Machine for grinding, smoothing, and polishing glass	381,394	June 12	832	217	43	1287



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Schell, Duncan M. (See Green, Cyrel W., assignor.)						
Schellinger, George E., Shelton, Conn. Buckle	393,668	Nov. 27	2202	577	45	1049
Schellman, Gustav E., New York, N. Y. Hat-stretcher	389,014	Sept. 4	306	80	44	1131
Schemmel, Julius, Chippewa Falls, Wis. Velocipede	381,956	May 1	81	20	43	536
Schenck, Edward, assignor to Lechner Manufacturing Company, Columbus, Ohio. Drive-chain	382,057	May 1	272	71	43	563
Schenck, Garret, Bangor, assignor to National Sulphite Boiler and Fiber Company, Portland, Me. Apparatus for preparing solutions of bisulphites	395,082	Dec. 25	2005	543	45	1505
Schenck, Garrett, Austin, Ill. Mechanical movement	380,697	Apr. 10	594	163	43	128
Schenck, Martin B., Meriden, Conn. Caster	381,173	Apr. 17	1330	355	43	275
Schenck, Remsen. (See Horne, William E., assignor.)						
Schenck, Unico H. W., Brooklyn, assignor of four-tenths to C. A. Willis, New York, N. Y. Belt-shifter	379,988	Mar. 27	1685	450	42	1312
Schenck, William H., Sterling, Colo. Seeding-machine	392,368	Nov. 6	284	72	45	648
Schenk, Christian. (See Baeyerlin, Emile K., assignor.)						
Scherbel, Jean. (See Remus, Theodor, assignor.)						
Scherffus, Jacob, Winona, Minn. Apparatus for the manufacture of charcoal	387,817	Aug. 14	928	240	44	757
Scherkenbach, August, Shakopee, Minn. Needle-threader	394,303	Dec. 11	848	224	45	1242
Schermerhorn, Joshua, and T. Jury, Terra Cotta, Kans. Cultivator	378,377	Feb. 21	1549	405	42	814
Scheuer, Simon, New York, N. Y. Shawl-strap	384,395	June 12	833	217	43	1287
Scheuer, Simon, New York, N. Y. Buckle	389,252	Sept. 11	698	178	44	1213
Scheurer, Philip H., Nashville, Ill. Hot-air furnace	381,427	Apr. 17	1694	454	43	347
Schibli, John D., Little Rock, Ark. Stove for railway-cars, &c	386,353	July 17	1494	396	44	305
Schickner, William G., and E. Rothlisberger, Cincinnati, Ohio; said Rothlisberger assignor to said Schickner. Cash indicator and register	376,262	Jan. 10	762	202	42	156
Schiefer, William D., et al. (See Poulson, Britton, assignor.)						
Schiefer, William D., Fort Wayne, Ind., assignor of one-half to J. C. Hunt, Concord, Mass. Device for detaching buttons	379,609	Mar. 20	1100	292	42	1186
Schiele & Co., Lewis. (See Koon, Joseph, assignor.)						
Schiele & Co., Lewis. (See Schiele, Lewis, assignor.)						
Schiele, Lewis, assignor to L. Schiele & Co., New York, N. Y. Corset	389,015	Sept. 4	307	80	44	1131
Schieren, Charles A. (See Brock, Fenelon B., assignor.)						
Schieren, Charles A., Brooklyn, N. Y. Manufacture of leather-link belting	377,333	Jan. 31	2337	678	42	476
Schieren, Charles A., Brooklyn, N. Y. Machine-belt	380,222	Mar. 27	2020	540	42	1378
Schieren, Charles A., Brooklyn, N. Y. Machine-belt	383,273	May 22	2320	589	43	966
Schierebeck, Richard, Brooklyn, N. Y. Refrigerator	376,263	Jan. 10	765	203	42	157
Schiernmeyer, A. L. August, Daykin, Nebr. Corn-planter	379,969	Mar. 27	1686	450	42	1313
Schiernmeyer, Henry W., Daykin, Nebr. Tricycle	380,770	Apr. 10	705	195	43	149
Schiess, Otto, New York, N. Y. Vending apparatus	381,428	Apr. 17	1696	455	43	347
Schiff, Moritz, New York, N. Y. Combined cane, umbrella, and camp stool	384,790	June 19	1415	371	43	1408
Schild, Charles C. (See Schild, Peter J., F. L., and C. C.)						
Schild, Charles C., P. J., and F. L., Ionia, Mich. Horse-boot	388,313	Aug. 21	1735	463	44	921
Schild, Frank L. (See Schild, Charles C., P. J., and F. L.)						
Schild, Frank L. (See Schild, Peter J., F. L., and C. C.)						
Schild, Peter J. (See Schild, Charles C., P. J., and F. L.)						
Schild, Peter J., F. L., and C. C., Ionia, Mich. Hoof-boot for horses	392,291	Nov. 6	165	43	45	625
Schildhauer, Joachim, New Holstein, Wis. Willow-bark-stripping machine	380,730	Apr. 10	644	178	43	138
Schill, C. Charles, East New York, N. Y. Ore-separator	389,323	Sept. 11	801	204	44	1232
Schill, Conrad C., East New York, N. Y. Machine for scouring grain	394,019	Dec. 4	413	111	45	1150
Schiller, Frederick W., assignor of two-thirds to H. H. Petze and G. W. Umbach, Baltimore, Md. Ice-breaker for vessels	384,593	June 12	1124	297	43	1341
Schilling, Stollwerck & Co. (See Stollwerck, Heinrich, assignor.)						
Schillmüller, August, San Francisco, Cal. Button-fastening machine	392,761	Nov. 13	862	220	45	768
Schillmüller, August, Oakland, Cal. Edge-shave	393,487	Nov. 27	1928	504	45	992
Schimansky, Otto, assignor, by mesne assignments, of one-half to D. J. Brown, Sandusky, Ohio. Machine for planing hoops	390,807	Oct. 9	846	226	45	174
Schimansky, Otto, assignor, by mesne assignments, of one-half to D. J. Brown, Sandusky, Ohio. Machine for pointing hoops	393,124	Nov. 20	1383	361	45	877
Schimmel, Fredrick W., Murray, Idaho Ter. Watch-case pendant	387,011	July 31	2499	656	44	518
Schimper & Co., William. (See Oldenbush, Ernest, assignor.)						
Schimper, Frederick, Wcehawken, N. J., assignor of one-half to W. M. Schwenker, New York, N. Y. Hose-clamp	382,557	May 8	1033	263	43	717
Schindler, Charles, New Corydon, Ind. Rein-holder	391,984	Oct. 30	2540	6-7	45	529
Schindler, William N., Mishawaka, Ind. Wheat heater or temperer	394,618	Dec. 18	1335	349	45	1347
Schindler, William N., and W. Mikel, Mishawaka, Ind. Bushing for shaft-pulleys	392,369	Nov. 6	285	72	45	649
Schinneller, Jacob, Pittsburg, Pa. Joint for gas-conduits	376,917	Jan. 21	1737	456	42	354
Schlachter, Philipp, and F. Heintz, Streator, Ill. Glass-melting furnace and regenerator	387,818	Aug. 14	929	240	44	758
Schlag, J. J. Henry, Bennett, Pa. Gas-stove	386,609	July 24	1878	496	44	392
Schlapp, Charles H. L., Davenport, Iowa. Heating-stove	378,979	Mar. 6	162	47	42	998
Schlapp, Herman A., Pueblo, Colo. Desilverizing lead bullion	380,524	Apr. 3	330	94	43	67
Schlatter, Otto, A. Schmid, and H. Bartscher, Berne, Switzerland. Surgeon's appliance	376,264	Jan. 10	766	203	42	157
Schlober, Henry H., assignor of one-half to W. W. Quine, Rochester, N. Y. Wire mat	383,772	May 29	2840	747	43	1092
Schlogetmilch, G. E., et al. (See Gilbert, George H., assignor.)						
Schlepogryll, Frederick W., Charleston, S. C. Electrical speed-indicator	380,824	Apr. 10	780	213	43	163
Schlesinger, Augustus D., College Point, assignor to India Rubber Comb Company, New York, N. Y. Atomizer	387,370	Aug. 7	263	67	44	622
Schlesinger, G., et al. (See Marks, Louis, assignor.)						
Schlesinger, William M., Philadelphia, Pa. Traveling current-collector for electric-railway motor-cars	377,215	Jan. 31	2157	569	42	445
Schlesinger, William M., Philadelphia, Pa. Electric-railway car-brake	378,980	Mar. 6	164	47	42	998
Schlesinger, William M., Philadelphia, Pa. Trap for electric-railway conduits	381,585	Apr. 24	1933	509	43	411
Schley, Frederick, Brooklyn, N. Y. Printer's galley	388,224	Aug. 21	1588	423	44	891
Schlicht & Field Company. (See Jewell, M. Romeyn, assignor.)						
Schlicht, Paul J., Rochester, N. Y. Paper-ble	389,530	Sept. 11	1097	290	44	1288
Schlunne, Henry, assignor of one-half to J. H. Grove, Lebanon, Pa. Device for mixing air and gas for furnaces	385,072	June 26	1860	475	43	1502
Schloss, Michael, Baltimore, Md. Coat	379,032	Mar. 6	253	72	42	1013
Schlumberger, Robert, Allegheny, Pa. Soldering-iron	382,558	May 8	1034	263	43	717
Schmah, Johann C., Barmen, Prussia, Germany. Imitation button	379,249	Mar. 13	620	169	42	1089

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Schmalzried, George, Jr. (See Randall, James D., assignor.)						
Schmasen, Henry, <i>et al.</i> (See Wherry and Rottaken, assignors.)						
Schmeling, Robert, Chicago, Ill. Show-case for street display.	392,692	Nov. 13	759	193	45	746
Schmeltzer, John N., Avoca, assignor of one-half to G. Lampe, Jr., Highland, Wis. Combined band-cutter and feeder.	389,981	Sept. 25	1796	476 477	44	1438
Schmiek, Charles M. (See Cowden, Reynolds I., assignor.)						
Schmid, Adolf. (See Schlatter, Schmid, and Bartscher.)						
Schmid, Albert, Allegheny, assignor to Westinghouse Electric Company, Pittsburg, Pa. Bobbin for the field-magnets of dynamos.	383,657	May 29	2653	703	43	1057
Schmid, Albert, Allegheny, assignor to Westinghouse Electric Company, Pittsburg, Pa. Brush-holder for electric generators.	383,658	May 29	2654	703	43	1057
Schmid, Albert, Allegheny, assignor to Westinghouse Electric Company, Pittsburg, Pa. Brush-holder for electric machines.	387,010	July 31	2497	655 656	44	517
Schmid, Albert, Allegheny, and H. M. Byllesby, assignors to Westinghouse Electric Company, Pittsburg, Pa. Armature for dynamos.	383,659	May 29	2655	703	43	1057
Schmid, Charles, assignor of one-half to G. Farnsworth, Chicago, Ill. Steam-engine governor.	384,286	June 12	665	178	43	1257
Schmid, Gottlob F., Beardstown, Ill. Feed-cutter.	383,494	May 29	2496	644	43	1010
Schmidt, Carl F., Elberfeld, Germany. Machine for the manufacture of paper bags.	378,851	Feb. 28	2259	601	42	958
Schmidt, Carl F., Elberfeld, Germany, assignor, by mesne assignments, to L. G. Fisher, Chicago, Ill. Manufacture of paper bags.	378,826	Feb. 28	1773	468	42	866
Schmidt, Charles G., and C. Spengel, Cincinnati, Ohio. Refrigerator.	391,864	Oct. 30	2366	642	45	494
Schmidt, Charles R., assignor to H. McShane & Co., Baltimore, Md. Extension-legs for water-closet seats and other seats.	388,076	Aug. 21	1341	362	44	846
Schmidt, Christian A., Hoboken, N. J. Chenille fringe.	379,033	Mar. 6	254	72	42	1014
Schmidt, Ferdinand C., Newark, N. J. Traveling-bag.	382,771	May 15	1339	352	43	785
Schmidt, Ferdinand C., assignor to R. Neumann & Co., Newark, N. J. Frame for traveling-bags.	378,623	Feb. 28	1910	506	42	893
Schmidt, Gustavo, Cincinnati, Ohio. Hame-tug.	383,151	May 22	1907	498	43	907
Schmidt, Gustavo, Cincinnati, Ohio. Leather-trimming machine.	384,287	June 12	667	179	43	1258
Schmidt, Theodore F. W., assignor of one-half to Laubach & Iddings, Dayton, Ohio. Paper box.	377,640	Feb. 7	432	110	42	577
Schmidt, Theodore F. W., assignor of one-half to Laubach & Iddings, Dayton, Ohio. Paper vessel.	382,559	May 8	1036	264	43	717
Schmidt, Wilhelm, Halberstadt, Prussia, Germany. Utilizing exhaust.	381,957	May 1	82	20	43	530
Schmidt, Wilhelm, Halberstadt, Prussia, Germany. Steam-generator.	382,835	May 15	1423	373	43	803
Schmiel, Ernst O., Gohlis, near Leipsic, Germany. Preparing lithographic surfaces.	376,554	Jan. 17	1172		42	239
Schmitt, Johann, assignor of two-thirds to J. B. Coblenzer, Coblenz, Prussia, Germany, and C. G. Rommenhöller, Rotterdam, Netherlands. Knitting-machine.	391,084	Oct. 16	1276	339 340 341	45	261
Schmitt, Justus, Osnabrück, Germany. Surgical knife.	394,304	Dec. 11	848	225	45	1242
Schmitz, Henry B. (See Aldom and Schmitz.)						
Schmuck, Solomon H., assignor of one-half to C. F. Hunger, Cleveland, Ohio. Reclining-chair.	380,525	Apr. 3	331	95	43	68
Schmucker, Morris, Lanark, Ill. Attachment for corn-planters.	379,821	Mar. 20	1426	378	42	1253
Schmucker, Morris, Lanark, Ill. Wagen-box fastener.	389,324	Sept. 11	802	204	44	1232
Schmückert, Friedrich E., Pritzwalk, Prussia, Germany. Preparing a solution of indigo for dyeing purposes.	386,933	July 31	2386		44	495
Schnarrenberger, Jacob H., assignor of one-half to T. Reynolds, Springfield, Ohio. Adding-machine.	391,430	Oct. 23	1753	469 470	45	359
Schneider, Bennett B., New York, N. Y. Lamp.	379,610	Mar. 20	1102	293	42	1188
Schneider, Christian C. (See Timby, Theodore R., assignor.)						
Schneider, Georg, Cologne, Germany. Fabric for driving-belts.	378,151	Feb. 21	1216	317	42	750
Schneider, Henri, Le Creusot, France. Tempering steel or steely iron.	381,935	June 19	1630		43	1447
Schneider, Henry. (See Welser and Schneider.)						
Schneider, John, New York, N. Y. Electric door-opener.	381,725	Apr. 24	9139	560	43	452
Schneider, Kate, New Richmond, Minn. Vegetable-steamer.	391,085	Oct. 16	1279	341	45	262
Schneider, Louis. (See Langlot, Adam G., assignor.)						
Schneider, Mary, St. Louis, Mo. Washing-fluid.	392,885	Nov. 13	1042		45	804
Schneider, Max, Doos, near Nuremberg, Bavaria, Germany. Parlor-stove.	377,119	Jan. 31	2031	532	42	418
Schneider, Max, Doos, near Nuremberg, Bavaria, Germany. Lubricator.	381,586	Apr. 24	1936	510	43	412
Schneider, Max, Doos, near Nuremberg, Bavaria, Germany. Regulating mantel-stoves.	393,859	Dec. 4	183	50	45	1106
Schneider, Robert H., Stillwater, Minn. Brake for road-engines.	395,003	Dec. 25	1986	512	45	1482
Schneider Sons & Co., Peter. (See Goldard, William L., assignor.)						
Schneider & Treunkamp. (See Ruppel, Henry, assignor.)						
Schneidewind, G. L. Hermann, Altona, Prussia, Germany, assignor of one-half to F. O. H. Wechsung, New York, N. Y. Vehicle-wheel.	376,969	Jan. 24	1803	475	42	367
Schneidewind & Lee Company. (See Bechman, Henry F., assignor.)						
Schnier, Anthony, and S. R. Smith, assignors to Smith, Myers & Schuier, Cincinnati, Ohio. Feed mechanism for saw-mill carriages.	377,469	Feb. 7	184	43	42	531
Schoefer, Selma A., Brooklyn, N. Y. Removable corset-fastening.	380,056	Mar. 27	1792	479	42	1332
Schoeller, William, New Waterford, Ohio. Mower.	380,459	Apr. 3	226	62	43	46
Schoenb. Hermann, Offenbach-on-the-Main, Germany. Producing lithographic surfaces.	379,731	Mar. 20	1277		42	1224
Schoen, Charles T., Philadelphia, Pa. Hydrocarbon superheater and burner.	379,879	Mar. 20	1529	403	42	1272
Schoen, Charles T., Philadelphia, Pa. Stake-pocket for cars.	381,174	Apr. 17	1331	355	43	275
Schoen, Charles T., Philadelphia, Pa. Die for making stake-pockets for cars.	381,175	Apr. 17	1332	356	43	275
Schoen, Charles T., assignor to C. Scott Spring Company, Philadelphia, Pa. Car-spring.	378,264	Feb. 21	1390	364	42	782
Schoen, Charles T., Philadelphia, Pa., assignor to C. Scott Spring Company. Making car-spring plates.	379,544	Mar. 13	991	266	42	1161
Schoen, Georg, New York, N. Y. Bustle.	379,419	Mar. 13	808	217	42	1125
Schoessel, Christian A., Rock Island, Ill. Saw-swaging device.	381,851	Apr. 24	2235	605	43	488
Schoettes, John F., Chicago, Ill. Mechanical movement.	385,377	July 3	56	16	44	13
Schoff, Samuel S., assignor of one-half to A. Schultz, Hagerstown, Md. Running-gear for vehicles.	394,544	Dec. 11	1203	313	45	1308
Schofield, Albert B., Jersey City, N. J. Seal-press.	378,624	Feb. 28	1911	506	42	894
Schofield, Daniel, Camden, N. J. Car-coupling.	378,265	Feb. 21	1391	365 366	42	782
Schofield, Daniel, Camden, N. J. Car-coupling.	391,277	Oct. 16	1546	409 410	45	312
Schofield, Fredrick F., Oscoda, Mich. Drive-chain.	377,120	Jan. 31	2032	532	42	419
Schofield, James A., and J. Brierley, Southport, county of Lancaster, England. Tap for kegs, bottles, &c.	385,730	July 10	594	154	44	123
Schofield, James D., assignor to J. P. Reed, Rogers, Tex. Combined corn and cotton planter.	388,452	Aug. 28	1941	519 520	44	966
Schofeld, James M., Merced, Cal. Safety-tip for pencils.	390,038	Sept. 25	1883	497	44	1456
Scholder, Edward F., Kepler, Kans. Truck.	387,741	Aug. 14	826	213	41	737

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Scholes, John, Philadelphia, Pa. Machine for making heavy rovings .....	382,908	May 15	1524	398	43	824
Schofield, Joseph J., Providence, R. I. Feeding mechanism for cloth-finishing machines .....	380,139	Mar. 27	1909	509 510	42	1335
Scholl, Frederick, Newark, N. J. Lady's belt .....	377,276	Jan. 31	2:50	594	42	461
Scholz, Charles, San Francisco, Cal. Grip for cable railways .....	394,512	Dec. 11	1146	298	45	1298
Schopp, Joseph B. (See Pike, Castle, and Schopp.)						
Schöpperle, Vinzens. (See Miller, Lewis, assignor.)						
Schönheyder, William A. G., Shepherd's Bush, county of Middlesex, England. Water-meter .....	377,641	Feb. 7	423	111	42	578
Schooley, George W., Alliance, Ohio. Combined wash stand and bracket .....	387,922	Aug. 14	1098	291	44	791
Schooley, Joseph E., Kyle, Ind. Band-cutter .....	376,166	Jan. 10	630	169	42	132
Schott, Arnold. (See Schreiner and Schott.)						
Schott Button Hole Attachment Company. (See Schott, William, assignor.)						
Schott, Joseph S., Burlington, Iowa. Hame-tug .....	382,052	May 1	274	72	43	563
Schott, William, Brooklyn, N. Y. Surgical knife .....	380,698	Apr. 10	595	163	43	128
Schott, William, assignor to Schott Button Hole Attachment Company, New York, N. Y. Button-hole attachment for sewing-machines .....	379,666	Mar. 20	1177	312 313	42	1204
Schouren, Wilhelm, Bracht, Prussia, assignor of one-half to F. Tonnar, Dülken, Germany. Apparatus for ringing bells .....	392,072	Oct. 30	2068	736	45	553
Schrade, George, assignor to M. E. and D. Thayer, New York, N. Y. Pin for neck-wear .....	376,047	Jan. 3	448	119	42	90
Schrader, Michael J. (See Günther, Henry S., assignor.)						
Schrader, Paul, New York, N. Y. Clothes-line-supporting frame .....	392,463	Nov. 6	428	107	45	675
Schrader, William, Arlington Heights, Ill. Potato-digger .....	391,086	Oct. 16	1280	311	45	262
Schraudner, Frederick, St. Louis, Mo. Meat-block .....	387,486	Sept. 11	1038	277	44	1277
Schrehler, Charles, Methuen, Mass., assignor, by mesne assignments, to Owasco Company, Portland, Me. Apparatus for carbonizing the vegetable matter in wool .....	380,598	Apr. 3	412	125	43	90
Schrehler, Charles, Methuen, Mass., assignor, by mesne assignments, to Owasco Company, Portland, Me. Carbonizing vegetable matter in wool .....	380,599	Apr. 3	443		43	90
Schreiber, John. (See De Vry and Schreiber.)						
Schreidt, Frank, assignor to Schreidt & Miller Company, Mansfield, Ohio. Manufacturing carriage-top irons .....	386,851	July 31	2265	506	44	472
Schreidt & Miller Company. (See Schreidt, Frank, assignor.)						
Schreiner, Friedrich, and A. Schott, Philadelphia, Pa. Matrix for stereotyping .....	376,348	Jan. 10	880	231	42	178
Schreiter, Maximilian J., Hamburg, Germany. Refining camphor .....	390,523	Oct. 2	459		45	93
Schreuder, Jens G., assignor to G. Westinghouse, Jr., Pittsburg, Pa. Semaphore-signal .....	387,452	Aug. 7	376	98	44	647
Schreyer, Gottlieb, Columbus, Ohio. Heating furnace and stove .....	379,990	Mar. 27	1688	451	42	1313
Schrock, Amos E. (See Neff, Abraham J., assignor.)						
Schroeder, Emil, San Francisco, Cal. Machine for pulling hair from skins of fur animals .....	382,736	May 15	1296	340 341	43	777
Schroeder, Frederick C., Boston, Mass. Color chart or scale .....	377,026	Jan. 31	1984	519	42	410
Schroeder, Max. (See Hänsch and Schroeder.)						
Schroeder, Scaton. (See Driggs and Schroeder.)						
Schroeter, Eduard R., Jersey City, N. J. Artificial stone .....	377,173	Jan. 31	2096		42	433
Schroeter, Waldemar, Delitzsch, Saxony, Germany. Velocipede .....	379,290	Mar. 13	621	169 170	42	1069
Schubert, August, Oneida, N. Y. Spring-vehicle .....	378,180	Feb. 21	1255	331	42	758
Schubert, August, Oneida, N. Y. Vehicle-spring .....	388,587	Aug. 28	2130	572	44	1003
Schubert, August, Oneida, N. Y. Vehicle-spring hanger .....	388,588	Aug. 28	2131	572	44	1003
Schubert, Christian W. H., Rock Island, Ill. Table .....	387,453	Aug. 7	377	98	44	647
Schuchman, Andrew, Springfield, Ill. Electric fire and burglar alarm .....	381,852	Apr. 24	2336	606	43	488
Schuckman, John P., Oreaville, Mo. Pump and windmill head .....	384,086	June 5	358	101	43	1190
Schuell, Leabard, et al. (See Barnes, Thomas W., assignor.)						
Schuetz & Co. (See Thompson, Robert B., assignor.)						
Schuetz, Max, New York, N. Y. Vent-plug .....	377,087	Jan. 31	1986	519	42	410
Schuff, Philipp, New York, N. Y. Pressure regulator for pumps .....	378,726	Feb. 28	2057	543	42	920
Schunmann, John G., assignor of one-half to W. Weimers, Pekin, Ill. Burglar-alarm .....	390,989	Oct. 9	1121	226	45	225
Schuknecht, Joseph J., Bailey, Ohio. Portable safe .....	391,921	Oct. 30	2447	661	45	511
Schuler, John A., Millville, Ohio. Hub .....	386,167	July 17	1295	327	44	255
Schulhof, Josef, Vienna, Austria-Hungary. Magazine-gun .....	390,099	Sept. 25	1978	526	44	1475
Schulhoff, Max. (See Sonnenschein, Adolf, assignor.)						
Schulhoff, Henry, New York, N. Y. Roofing .....	376,918	Jan. 24	1738	457	42	355
Schulte, Robert D. (See Schulte, William, assignor.)						
Schulte, William, Apollo, assignor of three eighths to R. D. Schulte, Pittsburg, Pa. Apparatus for removing frictional electricity from machinery .....	393,125	Nov. 20	1384	361	45	877
Schultes, Eduard. (See Schütz, Schultes, and Plicker.)						
Schultz, Anna, Milwaukee, Wis. Lady's head-wear .....	385,643	July 3	468	121	44	91
Schultz, August. (See Schott, Samuel S., assignor.)						
Schultz, Charles H. S., Stettin, Germany, assignor to American Patent Rights Corporation, (limited), Philadelphia, Pa. Leak-stopper for ships, &c. ....	387,200	July 31	2779	727	44	566
Schultz, Louis, et al. (See Zallud, Karl, assignor.)						
Schultze, Augusta, New York, N. Y. Eyeglasses .....	384,475	June 12	938	244	43	1308
Schulz, Richard, Tezel, near Berlin, Germany. Hoisting machinery .....	380,637	Apr. 3	490	137	43	100
Schulze-Berge, Herman, et al. (See Nienstädt, Ernst, assignor.)						
Schumacher, Emil M., West View, Pa. Hen's nest .....	380,699	Apr. 10	595	163	43	128
Schumacher, Jacob, Camden, N. J. Ruling-machine .....	387,012	July 31	2500	656 657 461 462	44	518
Schuman, Edward J., Frisco, Colo. Cotton-chopper .....	389,942	Sept. 25	1742		44	1428
Schuman, John, and A. G. Baier, Detroit, Mich. Spelling-board .....	375,774	Jan. 3	71	21	42	18
Schuman, John C., Akron, assignor to W. T. Jebb, New York, N. Y. Preparing and treating starch .....	379,034	Mar. 6	255	72	42	1014
Schumann, Charles B., South Norwalk, Conn. Combined extension-ladder, fire-escape, and hose-carriage .....	381,587	Apr. 24	1938	510 511	43	412
Schumann, Charles B., South Norwalk, Conn. Flexible ladder .....	381,853	Apr. 24	2337	606	43	488
Schumm, Bleichard, New York, N. Y. Mixing apparatus .....	388,724	Aug. 28	2328	627	44	1040
Schummel, Carl, Hoboken, N. J. Ice-creeper .....	376,832	Jan. 24	1622	421	42	332
Schnuppe, Friedrich, assignor of one-half to J. M. Hammeleath, Cincinnati, Ohio. Washing-machine .....	380,939	Apr. 10	960	255	43	196
Schussmann, William A., Calumet Harbor, Wis. Device for hanging doors .....	387,697	Aug. 14	762	194	41	725
Schussmann, William A., Calumet Harbor, Wis. Door .....	387,698	Aug. 14	763	194	44	725
Schnster, Rudolph, Carman, Tex. Double point for plows .....	393,270	Nov. 20	1593	418	45	919
Schutte, Louis, Philadelphia, Pa. Injector .....	377,912	Feb. 14	864	292	42	676
Schutte, Louis, Philadelphia, Pa. Check-valve .....	3 0,940	Apr. 10	961	255	43	196
Schutte, Louis, Philadelphia, Pa. Device for operating valves and other mechanisms .....	380,941	Apr. 10	962	256	43	196

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Schutte, Louis, Philadelphia, Pa. Jet-condenser.....	387,261	Aug. 7	91	23	44	589
Schutte, Louis, Philadelphia, Pa. Oil and gas burner.....	391,865	Oct. 30	2366	643	45	495
Schutte, Louis, Philadelphia, Pa. Ejector-condenser.....	393,488	Nov. 27	1928	501 505	45	992
Schutz, Adolph C., Brooklyn, assignor to National Progress Bunching Machine Company, New York, N. Y. Cigar-bunching machine.....	379,732	Mar. 20	1278	340 341	42	1294
Schutz, Adolph C., Brooklyn, assignor to National Progress Bunching Machine Company, New York, N. Y. Cigar-bunching machine.....	390,258	Oct. 2	86	24, 25	45	20
Schütz, Anton, E. Schultes, and R. Plücker, Solingen, Germany. Nut and bolt.....	389,603	Sept. 18	1227	321	44	1318
Schuyler Electric Company. (See Lemp, Hermann, assignor.)						
Schuyler Electric Company. (See Mott, Samuel D., assignor.)						
Schuyler Electric Company. (See Urban and Wightman, assignors.)						
Schuyler, Isaac C., Falls City, Nebr. Cooking stove or range.....	386,610	July 24	1879	496 497	44	392
Schwahn, Rudolph, Eau Claire, Wis. Collar-pad.....	377,088	Jan. 31	1987	520	42	410
Schwamin, Leonhard T., Cleveland, Ohio. Portable stack-cooler.....	314,432	Apr. 17	1706	457	43	350
Schwanhauser, William. (See Evans and Schwanhauser.)						
Schwartz, Charles, Brooklyn, N. Y. Ornamenting cards.....	388,589	Aug. 28	2132	572	44	1003
Schwartz, Daniel F., Liberty, Ill. Feed-rack.....	390,259	Oct. 2	87	25	45	20
Schwartz & Graff <i>et al.</i> (See Miller, Edward L., assignor.)						
Schwartz, Harry P., <i>et al.</i> (See Miller, Edward L., assignor.)						
Schwartz, Henry. (See Baker, Owen T., assignor.)						
Schwartz, Jacob, Portland, Oreg. Dentifrice.....	380,700	Apr. 10	596		43	128
Schwartz, Joseph. (See Kalinski, Crippen, and Cashen, assignors.)						
Schwartz, Paul. (See Klimka, Charles J., assignor.)						
Schwarz, Robert G., <i>et al.</i> (See Hooker, John J., assignor.)						
Schwarzburg, Henry W. (See Blank and Schwarzburg.)						
Schwarzburg, Henry W. (See Frey and Schwarzburg.)						
Schwarzburg, Henry W., H. F. Blank, and J. H. Albeide, Quincy, Ill. Baling-press.....	387,923	Aug. 14	1099	291	44	791
Schwanhäuser, Gustav. (See Büssler, Otto, assignor.)						
Schwebel, August, N. (See Wiedmann, John, assignor.)						
Schweickhardt, William, St. Louis, Mo. Apparatus for the manufacture of leather.....	385,644	July 3	469	122	44	91
Schweitzer, Thomas. (See Palm, John Z., assignor.)						
Schweizer, Maximilian, Naubuc, Conn. Knife.....	377,334	Jan. 31	2338	678	42	476
Schweuflin, George, assignor of one-half to E. C. Mills, Cincinnati, Ohio. Ink-feeding device for ruling-machines.....	392,138	Oct. 30	2786	756	45	577
Schweuflin, George, assignor of one-half to E. C. Mills, Cincinnati, Ohio. Attachment for paper-ruling machines.....	394,941	Dec. 18	1882	487	45	1453
Schweuk, Samuel Z., Pottstown, Pa. Lifting-jack.....	382,194	May 1	460	119	43	598
Schwenker, William M. (See Schimper, Frederick, assignor.)						
Schwenfeger, Charles H., <i>et al.</i> (See Beimling, Henry F., assignor.)						
Schwindlinsky, Hermann, assignor to A. Kuhn and R. Deissler, Berlin, Germany. Regenerative gas-burner.....	392,527	Nov. 6	514	129 130	45	693
Schwingen, William, assignor of one-fourth to H. Zellerberg, Wilkes-Barre, Pa. Machine for bending wagon-axes.....	391,649	Oct. 23	2048	554	45	422
Scotfield, Levi, Grand Haven, Mich. Attaching device for check-row machines.....	387,819	Aug. 14	931	241	44	758
Scotfield, Levi, Grand Haven, Mich. Check-row attachment.....	388,077	Aug. 21	1342	362	44	846
Scotfield, Levi, assignor to Challenge Corn Planter Company, Grand Haven, Mich. Drill attachment for planters.....	383,994	June 5	225	67	43	1165
Scoggin, William G. (See Palmer, Hezekiah C., assignor.)						
Scoles, Jordan J. D. (See Warner and Scoles.)						
Scollay, George W., New York, N. Y. Refining vegetable oils.....	377,406	Feb. 7	57		42	506
Scollay, George W., New York, N. Y. Refining cotton-seed oil.....	378,113	Feb. 21	1152		42	740
Scollay, George W., New York, N. Y. Refining cotton-seed oil.....	378,114	Feb. 21	1154		42	740
Scott, Alexander, guardian. (See Scott, William H.)						
Scott, Alvin, <i>et al.</i> (See Moore, Hugh, assignor.)						
Scott, Dyas, Brown County, Ohio. Swinging gate.....	389,413	Sept. 11	934	245	44	1258
Scott, Edward, Cedarville, Ark. Wagon-step.....	381,429	Apr. 17	1700	456	43	349
Scott, Elizabeth A., executrix. (See Scott, Ethan A.)						
Scott, Ethan A., deceased, San Francisco, Cal.; E. A. Scott executrix. Pressure-regulator for carbonic-acid gas.....	375,37	Jan. 3	151	43	42	34
Scott, George, assignor of one-half to F. E. Phelan, Montreal, Quebec, Canada. Store counter stool.....	385,962	July 10	928	245	44	190
Scott, George V., <i>et al.</i> (See Ryder, Joshua H., assignor.)						
Scott, Helen M., <i>et al.</i> (See Scott, William J., assignor.)						
Scott, Jacob C. E., <i>et al.</i> (See Scott, William J., assignor.)						
Scott, James, Brockville, Ontario, Canada. Car-coupling.....	381,474	June 12	936	243	43	1307
Scott, James H., Oakland, Iowa. Cultivator.....	394,619	Dec. 18	1337	350	45	1347
Scott, John M., Racine, Wis. Band-fastening.....	391,340	Oct. 16	1621	400	45	327
Scott, John T., Hamden, N. Y. Sled.....	379,130	Mar. 6	389	110	42	1039
Scott, Levi, <i>et al.</i> (See Lancaster, Charles P., assignor.)						
Scott, Mahlon M., Newark, N. J. Leather-graining machine.....	393,486	Nov. 27	1926	501	45	991
Scott, Martha J., <i>et al.</i> (See Scott, William J., assignor.)						
Scott, Robert P., Baltimore, Md. Machine for hulling and separating green peas.....	387,318	Aug. 7	181	47, 48	44	606
Scott, Robert W., Philadelphia, Pa. Trimming or edging for fabrics.....	395,004	Dec. 25	1989	513	45	1482
Scott, Robert W., Philadelphia, Pa. Sewing-machine.....	395,005	Dec. 25	1990	513	45	1483
Scott, Robert W., assignor of one-half to J. D. Morley, Philadelphia, Pa. Making knitted caps.....	379,420	Mar. 13	809	218	42	1126
Scott, Samuel H., Chanute, Kans. Curtain-roller bracket, sash-lock, &c.....	391,922	Oct. 30	2448	664	45	511
Scott, Samuel L., Washington, D. C. Dental engine hand-piece.....	395,252	Dec. 25	2280	609	45	1554
Scott Spring Company, Charles. (See Schoen, Charles T., assignor.)						
Scott, Walter. (See Coughlan, Peter F., assignor.)						
Scott, Walter, Waterbury, Conn. Register key-ring.....	376,453	Jan. 17	1036	271	42	213
Scott, Walter, Plainfield, N. J. Inking apparatus for printing presses.....	393,179	Nov. 20	1456	380	45	892
Scott, Walter S., Fort Meade, Dak. Terr. Pipe, tube, or shell extractor.....	381,791	June 19	1416	372	43	1408
Scott, William. (See Tilton and Scott.)						
Scott, William, Malden, Mass. Operating-lever for valves, &c.....	381,087	June 5	359	102	43	1190
Scott, William, Malden, Mass. Set wash-basin, bath tub, &c.....	394,404	Dec. 11	998	262	45	1271
Scott, William, Malden, Mass. Trap for basins, sinks, &c.....	394,405	Dec. 11	999	262	45	1272
Scott, William H., minor, A. Scott, guardian, assignor of one-half to D. C. Reinold, Washington, D. C. Box.....	381,889	Apr. 24	2290	621	43	500
Scott, William J. (See Mann, Edgar E., assignor.)						
Scott, William J., assignor to J. C. E., H. M., and M. J. Scott, Albany, N. Y. Flexible-back horse-brush.....	389,531	Sept. 11	1098	291	44	1288

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Scott, William M., Cambridge, Vt. Heating railway-cars.....	831,647	Apr. 24	2021	530	43	429
Scougal, Angus, Hickory Corners, Mich. Vent-stopper for pumps.....	383,773	May 29	2841	747	43	1093
Scovel, Charles W., <i>et al.</i> (See Rhule, Jacob, assignor.)						
Scovill Manufacturing Company. (See Flummang, Mathias, assignor.)						
Scovill Manufacturing Company. (See Fuller, Willard H., assignor.)						
Scovill Manufacturing Company. (See Harkness, William, assignor.)						
Scovill Manufacturing Company. (See Hyde, Theophilus R., Jr., assignor.)						
Scovill Manufacturing Company. (See Lines and Morris, assignors.)						
Scovill Manufacturing Company. (See Rust, Theodore S., assignor.)						
Scovill Manufacturing Company. (See Shipley, Alfred J., assignor.)						
Scovill Manufacturing Company. (See Sperry, Henry T., assignor.)						
Scovill Manufacturing Company. (See Tonks, James T., assignor.)						
Scoville, Charles L., Ashtabula, Ohio. Lubricator.....	387,319	Aug. 7	184	48	44	606
Scoville, Elijah U., Manlius, N. Y. Faucet.....	378,020	Feb. 14	1020	266 267	42	706
Scoville, Elijah U., Manlius, N. Y. Faucet.....	383,995	June 5	230	67	43	1165
Scoville, Hiram H., Chicago, Ill. Polishing-lathe.....	382,909	May 15	1525	399	43	824
Scribner, Charles E., Chicago, Ill. Telephone-exchange system.....	391,762	Oct. 23	2200	594	45	452
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Transfer switch and circuit for telephone-exchanges.....	377,441	Feb. 7	143	32	42	522
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Circuit for double-stranded telephone-switch-board cords.....	381,430	Apr. 17	1702	456	43	349
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Long-distance connection for multiple switch-boards.....	381,431	Apr. 17	1704	457	43	349
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Telephone-exchange system.....	383,013	May 15	1689	439 440	43	854
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Switch-board.....	383,014	May 15	1693	440	43	855
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Clearing-out annunciator.....	383,015	May 15	1694	440	43	856
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Automatic shunt for magneto-generators.....	383,016	May 15	1695	440	43	856
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuit for telephone call-boxes.....	383,017	May 15	1696	441	43	856
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Key-board apparatus for telephone-exchanges.....	383,018	May 15	1697	441	43	856
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-circuits for multiple switch-boards.....	383,495	May 29	2427	644 645	43	1010
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Electric annunciator.....	384,088	June 5	361	102	43	1190
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Police electric signal system.....	384,476	June 12	938	244	43	1308
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Multiple switch-board circuit.....	384,477	June 12	940	244	43	1308
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Multiple switch-board-testing apparatus.....	384,644	June 19	1200	317	43	1365
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test system for multiple switch-boards.....	385,205	June 26	2047	523	43	1541
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Test-signal circuit.....	385,482	July 3	225	58	44	45
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Spring-jack switch.....	385,528	July 3	297	76	44	60
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Loop-key.....	388,453	Aug. 28	1942	520	44	967
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Electric resistance-measuring apparatus.....	388,454	Aug. 28	1944	520	44	967
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Switch-board for telephone-exchanges.....	388,791	Aug. 28	2123	653 654	44	1058
Scribner, Charles E., assignor to Western Electric Company, Chicago, Ill. Natural-gas protective extinguisher.....	393,396	Nov. 27	1780	471	45	965
Scribner, G. Hilton, and W. Heckert, Yonkers, N. Y. Steam-engine.....	381,854	Apr. 24	2338	606 607	43	489
Scriven, Jeremiah A., New York, N. Y. Knitted under-garment.....	378,465	Feb. 28	1689	443	42	848
Scroggs, James A., near Randolph, assignor of one-half to G. W. Stevenson, Sherman Township, Kans. Cultivator and scraper combined.....	377,781	Feb. 14	681	172	42	640
Serymgeour, David, assignor to Paragon Noiseless School Slate Company, Monson, Me. Frame for school-slates.....	376,786	Jan. 24	1551	407	42	320
Scully, John, South Amboy, N. J. Machine for unloading cars.....	394,727	Dec. 18	1513	395 396	45	1383
Scully, John S. (See Carter, Edwin E., assignor.)						
Seulthorp, Walter J., Columbian Grove, assignor of one-half to C. M. Hardy, Watsborough, Va. Tobacco-banger.....	378,727	Feb. 28	2058	543	42	921
Seabough, Conrad, Austin, Tex. Writing-pen.....	391,199	Oct. 16	1433	383	45	292
Seabury, Charles L., assignor to Gas Engine and Power Company, New York, N. Y. Steam-boiler.....	387,186	July 31	2760	722	44	562
Seabury, Charles L., assignor to Gas Engine and Power Company, New York, N. Y. Naphtha-engine.....	393,080	Nov. 20	1322	345	45	865
Seabury & Johnson. (See Shaw, Charles H., assignor.)						
Seal, William B., assignor to W. S. Reins, Baltimore, Md. Car-coupling.....	381,648	Apr. 24	2022	530	43	429
Seale, Elias A., and W. W. Downing, Brewton, Ala. Vehicle-wheel.....	375,775	Jan. 3	72	22	42	18
Seaman, Abraham C., <i>et al.</i> (See Singer, Christian G., assignor.)						
Seaman, Alfred S. (See Andrews, Edward, assignor.)						
Seaman, Frederick W., Sheffield, county of York, England. Ingot or bar for tools.....	383,192	May 22	1960	514	43	917
Seaman, John A., Chicago, Ill. Machine for trussing barrels.....	376,487	Jan. 17	1076	282	42	221
Seaman, John A., Chicago, Ill. Fixed stopple for paint-kegs.....	389,253	Sept. 11	699	178	44	1213
Search, Casper F., assignor to Winona Harvester Works, Winona, Minn. Platform-adjustment for harvesters.....	383,660	May 29	2656	704 705	43	1058
Search, Casper F., assignor to Winona Harvester Works, Winona, Minn. Harvester.....	393,397	Nov. 27	1782	471	45	965
Search, Casper F., assignor to Winona Harvester Works, Winona, Minn. Harvester.....	394,513	Dec. 11	1148	298 299	45	1298
Searey, Charles L., Waco, Ky. Combined ledger and bill-book.....	389,668	Sept. 18	1333	349	44	1337
Searles, Austin D., Jr. (See Searls, Austin D., Sr., and D. C., and A. D. Searles, Jr.)						
Searles, David C., and E. Caldwell, Marion, Ind. Window-curtain attachment.....	389,982	Sept. 25	1799	477	44	1438
Searles, Robert N., New Haven, Conn., assignor to Athlophoros Company, New York, N. Y. Advertising-frame.....	376,265	Jan. 10	766	203	42	157
Searls, Anson, assignor to Searls Manufacturing Company, Newark, N. J. Whip-socket.....	395,006	Dec. 25	1991	513	45	1483



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'c.	Vol.	Page.
Searls, Austin D., Sr., Seward, A. D. Searls, Jr., Channahon, and D. C. Searls, Troy, Ill. Pulverizing-machine.....	376,112	Jan. 10	541	144	42	115
Searls, Austin D., Sr., Seward, D. C. Searls, Troy, and A. D. Searls, Jr., Channahon, Ill. Amalgamating apparatus.....	389,858	Sept. 18	1617	427	44	1,395
Searls, Dewitt C. (See Searls, Austin D., Sr. and Jr., and D. C.)						
Searls, Dewitt C. (See Searls, Austin D., Sr., D. C., and A. D. Searls, Jr.)						
Searls Manufacturing Company. (See Searls, Anson, assignor.)						
Sears, Andrew T., Bridgeport, Conn. Shaft-support for vehicles.....	393,523	Nov. 27	1982	518	45	1005
Sears, Edwin, Brooklyn, N. Y. Cash-mat.....	394,083	Dec. 4	506	135	45	1168
Sears, John F., Clifton, Ontario, Canada and H. E. Kelley, Niagara Falls, assignors to Oneida Community, (limited,) Community, N. Y. Chain-fastener.....	381,855	Apr. 24	2341	607	43	489
Sears, Joseph. (See Burnet, Sears, and Burnham.)						
Sears, Thomas H., assignor of one-half to W. Jolly, Holyoke, Mass. Furnace-grate.....	394,545	Dec. 11	1204	313	45	1308
Sears, William. (See Bailey, Elmer E., assignor.)						
Sears, William N., assignor of one-half to M. V. B. Holmes, Wellington, Kans. Nut-lock.....	380,526	Apr. 3	332	95	43	68
Seaver, George F., Dover, N. H. Fire-extinguisher for car-heaters.....	380,057	Mar. 27	1792	479	42	1232
Seaver, George F., Dover, N. H. Safety attachment for car-heaters and car-lamps.....	388,590	Aug. 28	2133	573	44	1003
Sechrist, Albert, Greeley, Colo. Multiple switch-board.....	385,226	July 10	732	192	44	150
Seck, Heinrich, Dresden, Saxony, Germany, assignor of one-half to H. Simon, Manchester, England. Dust-collector.....	386,037	July 10	1031	273 274	44	211
Secrist, Samuel B. (See Thompson and Secrist.)						
Sedgwick, Alonzo, Poughkeepsie, assignor, by mesne assignments, to D. H. Burrell & Co., Little Falls, N. Y. Ruling-machine.....	387,111	July 31	2632	692 693	44	543
Sedgwick, Alonzo, Poughkeepsie, assignor, by mesne assignments, to D. H. Burrell & Co., Little Falls, N. Y. Paper-feeder.....	387,112	July 31	2635	693 694	44	543
Sedgwick, Alonzo, Poughkeepsie, assignor, by mesne assignments, to D. H. Burrell & Co., Little Falls, N. Y. Ruling-machine.....	387,113	July 31	2638	694	44	544
Sedgwick, Alonzo, Poughkeepsie, assignor, by mesne assignments, to D. H. Burrell & Company, Little Falls, N. Y. Ruling-machine.....	391,278	Oct. 16	1548	410	45	313
Sedgwick, Alonzo, W. Womersley, Poughkeepsie, and R. J. Brown, New York, assignors, by mesne assignments, to D. H. Burrell & Company, Little Falls, N. Y. Paper-feeder.....	391,087	Oct. 16	1281	342	45	262
Sedgwick, Frederick, Chicago, Ill. Mainspring for watches.....	381,176	Apr. 17	1333	356	43	275
Sedgwick, Frederick, Chicago, Ill. Machine for tempering metal wires and strips.....	388,078	Aug. 21	1344	362	44	817
Sedgwick, Thomas L. (See Baldwin and Sedgwick.)						
See, James W. (See Clawson, Keller, and See.)						
See, James W., Hamilton, Ohio. Fire-alarm.....	377,501	Feb. 7	236	57, 58	42	540
See, James W., Hamilton, Ohio. Record-book and making the same.....	384,288	June 12	669	179	43	1258
Seebold, Moritz, Berlin, Germany. Belt-fastener.....	389,604	Sept. 18	1228	321	44	1318
Seed, John H. (See Daley, John J. and G. J., assignors.)						
Seeger, William M., Louisville, Ky. Lathe-tool for finishing and polishing.....	394,406	Dec. 11	1001	262	45	1272
Seel, Carl, Berlin, Germany. Electric-lamp filament.....	382,560	May 8	1037	264	43	718
Seel, John B., London, county of Middlesex, England. Umbrella.....	391,650	Oct. 23	2049	554 555	45	422
Seel, Louis. (See Gordon, Isaac C., assignor.)						
Seely, Marquis F., Fremont, Nebr. Elevator-boot.....	382,772	May 15	1340	352	43	785
Seely, John A. (See McIntire, Charles, assignor.)						
Seely, John A. (See Vail and Seely.)						
Seelye, Norman M. (See Saxe, Seelye, and Coy.)						
Seery, James F., Brooklyn, N. Y., assignor to Empire Hydrocarbon Company, of New York. Hydrocarbon-burner.....	379,291	Mar. 13	622	170	42	1089
Seery, Peter H., Waterbury, Conn., assignor of two-thirds to G. A. Adler, New York, N. Y. Running toy.....	399,325	Sept. 11	803	205	44	1233
Seewald, Phillip, Hudson, Mich. Watch-makers' tweezers.....	390,260	Oct. 2	88	25	45	21
Sefton, Louis P., Toronto, Ontario, Canada. Sharpener for reaper and mower blades.....	379,335	Mar. 13	684	185	42	1101
Sefton, William E., Canton, Ohio. Rolling colter.....	382,737	May 15	1299	341	43	777
Sefton, William E., Canton, Ohio. Plow-point.....	385,529	July 3	298	76	44	60
Segar, Charles T., Utica, N. Y. Folding cot.....	381,433	Apr. 17	1707	457	43	350
Seger, Eberhard, Stockholm, Sweden. Capsule-machine.....	375,776	Jan. 3	74	22, 23	42	19
Segerdahl, Rudolph. (See Gill and Segerdahl.)						
Segschneider, Gustav, Yonkers, N. Y. Pile-wire for weaving.....	379,545	Mar. 13	993	267	42	1161
Segschneider, Gustav, assignor to Waring Hat Manufacturing Company, Yonkers, N. Y. Pile-wire for looms.....	383,545	May 29	2508	662	43	1025
Segur, Joseph M., Adrian, Mich. Hand corn-planter.....	393,669	Nov. 27	2202	577 578	45	1049
Segur, Joseph M., Adrian, Mich. Hand corn-planter.....	393,670	Nov. 27	2205	578	45	1050
Seib, Frederick G. (See Seib, Simon H. M. and F. G.)						
Seib, Simon H. M. and F. G., Newark, N. J. Pulley-block.....	378,625	Feb. 28	1914	506	42	894
Seib, Valentine, Albany, N. Y. Manufacture of polishing-powder.....	376,411	Jan. 10	692		42	142
Seiberling, John F., Akron, Ohio. Grain-binder.....	379,494	Mar. 13	919	247	42	1147
Seiberling, John F., Akron, Ohio. Machine for molding paper barrels.....	388,079	Aug. 21	1345	362 363	44	817
Seibert, Anna L., New York, N. Y. Combined scarf tip and fastener.....	391,562	Oct. 23	1931	520	45	398
Seibert, Antony, Rock Rift, N. Y. Machine for delinting cotton-seed.....	383,374	May 22	2221	590	43	966
Seibert, Nicholas, Boston, Mass. Oil-feeder.....	379,733	Mar. 20	1280	341	42	1224
Seibert, Nicholas, Malden, Mass. Oil-feeder.....	387,114	July 31	2639	694 695	44	544
Seibert, William A., Easton, Pa. Rack.....	389,336	Sept. 11	804	205	44	1233
Seifert, Carl H., Philadelphia, Pa. Carriage for spinning-mules.....	389,016	Sept. 4	308	80, 81	44	1131
Seifert, Oswald, San Francisco, Cal. Rotary pump.....	383,996	June 5	230	67	43	1166
Seiler, Carl, Philadelphia, Pa. Electric heater.....	379,822	Mar. 20	1427	378	42	1253
Seimel, Conrad, Brooklyn, N. Y. Can-filling machine.....	383,595	May 29	2562	678	43	1037
Seip, Henry C., St. Louis, Mo. Baby-carriage.....	390,909	Oct. 9	925	260	45	201
Seiser, Herbert F. (See Emerson, Victor H., assignor.)						
Seiser, George F., W. T. Hill, and W. L. Nuttall, Port Royal, assignors to said Seiser, W. J. Cogle, and W. F. Brewer, Louisville, Ky. Vehicle-longue support.....	392,640	Nov. 13	684	171	45	732
Seiter, Otto C., New Ulm, Minn. Sash-cord fastener.....	376,349	Jan. 10	881	231	42	178
Seitz, Nathaniel Z. (See Miller and Seitz.)						
Seitz, Nathaniel Z., Washington, D. C., assignor to Kohler Improved Cattle Car Company, New York, N. Y. Stock-car.....	380,600	Apr. 3	445	125	43	90
Seitz, Nathaniel Z., Glen Rock, Pa., assignor to Shellabarger Live-Stock Car Company, Washington, D. C. Stock-car.....	380,638	Apr. 3	491	138	43	100
Seitz, William. (See Tingle, Leibrock, and Seitz.)						
Seiby, George W. (See Richards, Nowell H., assignor.)						
Selby, James, Peoria, Ill. Corn-planter.....	381,588	Apr. 21	1942	511 512	43	413

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Selby, Prentiss, Oakland, Cal. Wad-printing machine .....	382,441	May 8	848	{ 216 217 }	43	680
Selby, Prentiss, Oakland, Cal. Cartridge-leading machine .....	384,080	June 5	362	102	43	1190
Selden, Charles, Baltimore, Md. Duplex telegraphy .....	375,898	Jan. 3	226	62	42	48
Selden, Charles, Baltimore, Md. Multiple telegraphy .....	378,181	Feb. 21	1256	331	42	758
Selden, Charles, Baltimore, Md. Telegraph-receiver .....	382,195	May 1	461	119	43	598
Selden, Charles, and G. R. Ott, Baltimore, Md. Railway-signal .....	395,181	Dec. 25	2367	581	45	1534
Self Winding Clock Company. (See Gerry, James H., assignor.)						
Seligmann, Leon, Saratov, Russia. Heating feed-water .....	392,073	Oct. 30	2671	{ 726 727 }	45	554
Selinger, Julius. (See Smith, Charles G., assignor.)						
Selle, Ferdinand, assignor to Selle Gear Company, Akron, Ohio. End-gate .....	388,002	Aug. 14	1223	332	44	816
Selle Gear Company. (See Selle, Ferdinand, assignor.)						
Selleck, Lloyd A., and G. J. Keenan, Brooklyn, Mich. Knob-lock .....	377,815	Feb. 14	732	185	42	649
Selleck, William E., Chicago, Ill. Recording weighing-scale .....	378,557	Feb. 28	1820	480	42	875
Selleck, William E., Chicago, Ill. Recording weighing-scale .....	393,398	Nov. 27	1783	471	45	965
Seller, Simon, Wilmington, Del. Smoke and spark carrier .....	392,231	Nov. 6	80	19	45	609
Seller, Thomas, Versailles, Ky., assignor of one-half to W. Young, Dayton, Ohio. Dibble .....	385,324	June 26	2237	573	43	1578
Sellers & Company, William. (See Kneass, Strickland L., assignor.)						
Sellers, George. (See Berwick and Sellers.)						
Sellers, Morris. (See Greer, Howard, assignor.)						
Sellers, Morris, et al. (See Kirby, James A., assignor.)						
Sellers, Robert, Scholes, near Cleckheaton, county of York, England. Head of card-fillet-setting machines .....	391,279	Oct. 16	1549	410	45	313
Sellers, William. (See Weeks and Sellers.)						
Sellon, John S., Hatton Gardens, county of Middlesex, England. Incandescent gas-burner .....	377,502	Feb. 7	239	58	42	541
Sellon, John S., Hatton Gardens, county of Middlesex, England, assignor to Electrical Accumulator Company, of New York. Secondary battery .....	377,642	Feb. 7	434	111	42	578
Sellon, John S., Hatton Gardens, county of Middlesex, England, assignor to Electrical Accumulator Company, of New York. System of electrical distribution by secondary batteries .....	378,115	Feb. 21	1155	301	42	740
Sellon, John S., Hatton Gardens, county of Middlesex, England, assignor to Electrical Accumulator Company, of New York. Automatic switch for secondary batteries .....	378,527	Feb. 28	1774	469	42	866
Sellon, John S., Hatton Gardens, county of Middlesex, England, assignor to Electrical Accumulator Company, of New York. Automatic switch for secondary batteries .....	382,112	May 1	350	92	43	578
Sellon, John S., Hatton Gardens, county of Middlesex, England, assignor to Electrical Accumulator Company, of New York. Automatic switch for secondary batteries .....	384,289	June 12	671	{ 179 180 }	43	1258
Sellon, John S., Hatton Gardens, county of Middlesex, England, assignor to Electrical Accumulator Company, of New York. Automatic switch for secondary batteries .....	392,826	Nov. 13	963	247	45	787
Sellon, John S., Sydenham, county of Kent, England, assignor to Electrical Accumulator Company, of New York. Secondary battery .....	383,193	May 22	1961	514	43	917
Sellon, John S., The Hall, Sydenham, county of Kent, England, assignor to Electrical Accumulator Company, of New York. Secondary battery .....	386,898	July 31	2333	613	44	484
Sellon, Robert P., and W. M. Mordey, assignors of one-third to C. E. Webber, Victoria Works, Belvedere Road, county of Surrey, England. Regulator for alternating-current generators .....	392,370	Nov. 6	285	73	45	649
Selmser & Son, G. (See Edington, Isaac B., assignor.)						
Selowsky, Gustave, New York, N. Y. Neckscarf .....	379,182	Mar. 6	449	126	42	1052
Seltzer, Van S. (See Bending, William P., assignor.)						
Selva, Howard, Brooklyn, N. Y. Can-stopper .....	378,981	Mar. 6	167	48	42	999
Semmes, Raphael T., Atlanta, Ga. Back-band buckle .....	385,206	June 26	2049	523	43	1541
Semmes, Raphael T., Atlanta, Ga. Hane .....	391,985	Oct. 30	2541	688	45	529
Semonin, Peter, assignor to P. Semonin, Jr., Evansville, Ind. Railway cross-tie .....	387,602	Aug. 7	623	162	44	692
Semonin, Pierre, Jr. (See Semonin, Peter, assignor.)						
Semple, Harry, Hamilton, Ontario, Canada. Machine for finishing bottle-necks .....	384,290	June 12	673	180	43	1259
Senftner, Robert, Brooklyn, N. Y. Station-indicator .....	379,292	Mar. 13	623	{ 170 171 }	42	1090
Senftner, Robert, Brooklyn, N. Y. Station-indicator .....	392,693	Nov. 13	759	193	45	747
Seng, Wendelin, assignor to Rocker Spring Company, Chicago, Ill. Rocking-chair attachment .....	376,266	Jan. 10	767	{ 203 204 }	42	157
Senieur, Frederick, Mount Sterling, Ky. Buggy-boot .....	386,660	July 24	1955	516	44	407
Senour, Faunt L., New Alexandria, and J. McHenry, Wilkinsburg, Pa. Potato-planter .....	393,860	Dec. 4	185	51	45	1106
Sens, Herman A., Cincinnati, Ohio. Tailor's square .....	389,327	Sept. 11	805	205	44	1233
Sensabaugh, Peter J., Knoxville, Pa. Car-heater .....	392,404	Nov. 6	429	107	45	675
Sentman, Robert A., Philadelphia, Pa. Machine for making paper tubes .....	377,643	Feb. 7	435	{ 111 112 }	42	578
Sergeant, George S., Greensborough, N. C. Tether .....	390,808	Oct. 9	848	226	45	174
Sergent, Elmer L. (See Vivartas, Aloha, assignor.)						
Sergeson, James C., Philadelphia, Pa. Loom-shuttle .....	383,774	May 29	2842	747	43	1093
Serpellet, Léon, Paris, France. Steam-generator .....	379,421	Mar. 13	809	218	42	1126
Serpellet, Léon, Paris, France. Steam-generator .....	392,934	Nov. 13	1108	287	45	816
Serson, James, assignor to J. O. Whitten, Boston, Mass. Battery-jar .....	389,532	Sept. 11	1099	291	44	1289
Serrus, Ferdinand, Berlin, Germany. Picture-frame support .....	389,671	Apr. 3	350	{ 150 151 }	43	111
Sessions, Henry H., Pullman, assignor to Pullman's Palace Car Company, Chicago, Ill. Equalizer for car-vestibules .....	383,019	May 15	1698	441	43	857
Sessions, John H. (See Taylor, Charles A., assignor.)						
Setchell, George C., Norwich, Conn. Making wood type .....	389,112	Sept. 4	470	121	44	1160
Setchell, George C., Norwich, Conn. Producing dies for making wood type .....	389,113	Sept. 4	471	121	44	1160
Setchfield, James, Fenton, Mich. Adjustable tongue for vehicles .....	393,399	Nov. 27	1785	472	45	965
Settle, Joseph A. (See Emmer, Julius, Jr., assignor.)						
Settle, Thomas, assignor of one-half to G. M. Roper, Philadelphia, Pa. Car-coupling .....	391,651	Oct. 23	2051	555	45	423
Settle, Witchea S., Paris, Tex. Shoe-cabinet .....	389,765	Sept. 18	1466	384	44	1365
Settlemyre, David O., Litchfield, Ill. Air-tight door .....	386,221	July 17	1320	349	44	272
Severance, James R., Fremont, Ohio, assignor of two-thirds to W. D. Baldwin, Montclair, N. J., and J. C. Adset, Hornellsville, N. Y. Knot-tying mechanism for grain-binders .....	382,773	May 15	1341	{ 353 354 }	43	786
Severin, William, Chicago, Ill. Printer's standing-galley .....	385,144	June 26	1959	501	43	1523
Severio, Frank, and J. D. Case, San Francisco, Cal. Machine for subdividing match-blocks .....	393,453	Nov. 27	1862	490	45	960
Seversen, Abram, Auburn, N. Y. Window-frame .....	389,908	Sept. 25	1695	448	44	1418
Sevier, James P. and J. R., Opel, Mo. Grain-dumping device .....	386,934	July 31	2387	{ 627 628 }	44	495
Sevier, John R. (See Sevier, James P. and J. R.)						
Sevier Samuel Q., et al. (See Yarbrough, Charles F., assignor.)						
Sewall, James H., Portland, Me. Valve for steam-heating apparatus .....	392,827	Nov. 13	964	{ 247 248 }	45	787

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Sewall, James H., Portland, Me. Car-heating apparatus	392,828	Nov. 13	966	248	45	787
Sewall, James H., Portland, Me. Circulatory heating system for cars	393,035	Nov. 20	1268	328	45	854
Sewall, Robert H. F., Birmingham, Ala. Smoke-consumer	387,661	Aug. 14	704	181	44	714
Seyfert, Ernst, J., <i>et al.</i> (See Beyer, Albin, assignor.)						
Seyfried, Eugene E. V. (See Wotruba, Johann, assignor.)						
Seymour, Charles, assignor to Defiance Machine Works, Defiance, Ohio. Fence for saws	378,939	Mar. 6	112	32	42	988
Seymour, Dudley S. (See Pope, Harry M., assignor.)						
Seymour, Frederick J., Findlay, Ohio. Furnace for reducing aluminum	382,196	May 1	464	120	43	599
Seymour, Frederick J., Findlay, Ohio. Obtaining alumina from clay	382,273	May 1	578	146	43	620
Seymour, Frederick J., Cleveland, Ohio, assignor to Brown's Seamless Metal Company, Jersey City, N. J. Machine for shaping wrought-metal cylinders	376,167	Jan. 10	631	169	42	132
Seymour, Frederick J., Cleveland, Ohio, assignor to Brown's Seamless Metal Company, Jersey City, N. J. Making guns and ordnance	376,168	Jan. 10	634	169	42	132
Seymour, Frederick J., Findlay, Ohio, assignor to American Aluminum Company, Detroit, Mich. Obtaining alumina from clay	382,197	May 1	467		43	599
Seymour, Frederick J., Findlay, Ohio, assignor to American Aluminum Company, Detroit, Mich. Purification and alloying of copper	382,198	May 1	467		43	599
Seymour, George R., Boston, Mass. Apparatus for burning hydrocarbon oil	388,507	Aug. 28	2013	544	44	980
Seymour, Grant, assignor to Niles & Scott Company, La Porte, Ind. Metal wheel	394,885	Dec. 18	1785	463	45	1436
Seymour, Henry A. (See Kelly, Owen E., assignor.)						
Seymour, Henry A., Washington, D. C., assignor to Brush Electric Company, Cleveland, Ohio. System of electric locomotion	384,594	June 12	1125	297	43	1341
Seymour, J. M. (See Patten, Francis J., assignor.)						
Seymour, James A., Auburn, N. Y. Governor for steam-engines	370,131	Mar. 6	389	111	42	1039
Seymour, James A., Auburn, N. Y. C. milled relief-valve and cylinder-cock	382,329	May 8	674	170	43	647
Seymour, James C., Allegheny, Pa. Adding-machine	391,088	Oct. 16	1283	342	45	262
Seymour, James W., Brooklyn, assignor to himself, and Triest & Co., New York, N. Y. Rest for packing hats	392,074	Oct. 30	2673	727	45	554
Seymour, John, <i>et al.</i> (See Brougher, David J., assignor.)						
Seymour, John B., Jr. (See Adams and Seymour.)						
Seyster, Joshua, Concordia, Kans. Support for shelves, &c	383,530	July 3	299	77	44	60
Shade, David E. (See McCray and Shade.)						
Shafer, George W. (See Shafer, William F. and G. W.)						
Shafer, William F. and G. W., Rich Hill, Mo. Baling press	385,207	June 26	2050	534	43	1541
Shafer, Abraham and G. M., Cassopolis, Mich. Gang plow	383,496	May 29	2429	645	43	1011
Shaffer, Charles H., assignor of one-half to Jones, Woodruff & Co., Rockford, Ill. Fire-alarm	390,192	Sept. 25	2111	563	44	1502
Shaffer, Edward P., Rochester, N. Y. Oil-cup	377,782	Feb. 14	682	172	42	640
Shaffer, George H. (See Mott, Charles S., assignor.)						
Shaffer, George M. (See Shaffer, Abraham and G. M.)						
Shaffer, Henry E., assignor to Rochester Burner Company, Rochester, N. Y. Lamp	386,758	July 24	2087	549	44	430
Shaffer, John H. (See Ecker and Shaffer.)						
Shaffer, Simon B., Ekalaka, assignor to himself and H. E. Gibb, Miles City, Mont. Ter. Spoke-anger	380,701	Apr. 10	597	164	43	138
Shallstall, Nathaniel, Flint, assignor of one-half to J. J. Kinney, Angola, Ind. Fence	382,725	Aug. 28	2329	627	44	1040
Shaban, Winfield S., assignor to himself and F. M. Madison, Russell, Kans. Double-acting force pump	391,563	Oct. 23	1932	521	45	398
Shake, William L., Paxton, Ind. Grain-adjuster	377,216	Jan. 31	2163	571	42	445
Shallenberger, Oliver B. (See Pyllesby and Shallenberger.)						
Shallenberger, Oliver B., Rochester, Pa. Meter for alternating electric currents	388,003	Aug. 14	1324	332 333	44	816
Shallenberger, Oliver B., Rochester, Pa. Measuring alternating electric currents	388,004	Aug. 14	1326	333 334	44	817
Shallenberger, Oliver B., Rochester, assignor to G. Westinghouse, Jr., Pittsburg, Pa. Electric indicator	380,942	Apr. 10	963	256	43	196
Shallenberger, Oliver B., Rochester, assignor to G. Westinghouse, Jr., Pittsburg, Pa. Circuit-controlling apparatus for electric-lighting circuits	383,661	May 29	2660	705	43	1058
Shallenberger, Oliver B., Rochester, assignor to G. Westinghouse, Jr., Pittsburg, Pa. Coupling dynamo-electric machines for electric distribution	390,910	Oct. 9	995	261	45	201
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Volt-ammeter	380,943	Apr. 10	965	256	43	197
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electrical pressure-indicator	380,944	Apr. 10	965	256	43	197
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Adjustable inductive resistance	380,945	Apr. 10	967	257	43	197
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electrical indicator	380,947	Apr. 10	970	257	43	198
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Coupling of alternate-current generators	383,662	May 29	2661	705	43	1059
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Armature for dynamos	383,663	May 29	2662	706	43	1059
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Armature for electric machines	383,664	May 29	2663	706	43	1059
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Indicator for electric currents	383,665	May 29	2663	706	43	1059
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Apparatus for detecting ground-connections in electric circuits	383,666	May 29	2665	706	43	1060
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Indicating electric currents	383,667	May 29	2666	707	43	1060
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electrical indicator for alternating electric currents	383,668	May 29	2667	707	43	1060
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electrical indicator	383,669	May 29	2669	707	43	1061
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electrical indicator	383,670	May 29	2671	707	43	1061
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Electrical indicator	383,671	May 29	2673	708	43	1061
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Indicating electric currents	383,672	May 29	2675	708	43	1062
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Regulator for electric translating devices	390,911	Oct. 9	997	261	45	202
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Apparatus for synchronizing alternate-current dynamo-electric machines	390,912	Oct. 9	998	261	45	202
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. System of electrical distribution	390,990	Oct. 9	1132	297	45	225

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Shallenberger, Oliver B., Rochester, assignor to Westinghouse Electric Company, Pittsburg, Pa. Indicator for electric circuits.....	394,728	Dec. 18	1515	396	45	1384
Shallenberger, Oliver B., Rochester, and H. M. Byllesby, assignors to Westinghouse Electric Company, Pittsburg, Pa. Central station for alternate-current systems of electrical distribution.....	380,946	Apr. 10	968	257	43	197
Shallenberger, Oliver B., Rochester, and H. M. Byllesby, assignors to Westinghouse Electric Company, Pittsburg, Pa. Electric converter.....	387,013	July 31	2501	657	44	518
Shamp, George W. (See Birge Shamp, and Lebmann.)						
Shanck, Henry K., Columbus, Ohio. Gas-engine.....	376,212	Jan. 10	693	184	42	142
Shanck, Henry K., Columbus, Ohio. Gas-engine.....	390,710	Oct. 9	711	188	45	150
Shaner, Maconius, Beaver Falls, Pa. Bolting-reel.....	380,527	Apr. 3	333	95	43	68
Shank, Charles A., Philadelphia, Pa., assignor of one-half to J. W. Shank, Central City, Nebr. Artificial-stone composition.....	388,726	Aug. 28	2330		44	1040
Shank, James, Clayton, Ill. Cultivator.....	380,948	Apr. 10	972	258	43	198
Shank, John, Las Vegas, N. Mex. Ter. Switch for street-railways.....	390,261	Oct. 2	89	25	45	21
Shank, John W. (See Shank, Charles A., assignor.)						
Shanklin, Philip A., W. R. and W. Swager, Sandoval, Ill. Station-indicator.....	393,524	Nov. 27	1983	518	45	1005
Shanley, Michael H., Granbury, Tex. Kitchen-cabinet.....	393,861	Dec. 4	187	51, 52	45	1107
Shannon, Oscar M., Chicago, Ill. Clothes-drier.....	380,949	Apr. 10	973	258	43	198
Shannon, Robert T. (See Shannon, William H. and R. T.)						
Shannon, William H. and R. T., Stockton, Cal. Railway-crossing.....	376,756	Jan. 24	1489	393	42	308
Shants, Abram B., Sliters, N. Y. Potato-digger.....	370,771	Apr. 10	706	195	43	150
Sharbonneau, Eli, Toledo, Ohio. Metal wheel.....	388,455	Aug. 28	1945	521	44	967
Sharer, George W., Terre Haute, Ind. Drier.....	385,208	June 26	2051	524, 525	43	1542
Sharer, George W., Terre Haute, Ind. Brick-kiln.....	385,209	June 26	2053	526, 527	43	1542
Sharood, William H., assignor of one-half to J. Hanna, Birmingham, Mich. Self-acting continuous-rail frog.....	386,852	July 31	2266	596	44	472
Sharp, Asa C. (See McMahon, Sharp, and Liles.)						
Sharp, Christopher C., Indianapolis, Ind. Inhaler.....	382,113	May 1	351	92	43	578
Sharp, Christopher C., Indianapolis, Ind. Pessary.....	395,008	Dec. 25	1993	514	45	1483
Sharp, Edward A., Rogers Park, Ill., assignor to W. B. Sterrett, New York, N. Y. Railway-signal.....	385,963	July 10	929	246	44	190
Sharp, Edward A., Rogers Park, Ill., assignor to W. B. Sterrett, New York, N. Y. Electric signal for railways.....	385,964	July 10	929	246	44	190
Sharp, Henry C., et al. (See Martin, J. Albert, assignor.)						
Sharp, James L., New York, N. Y. Gas-stove.....	380,355	Apr. 3	79	25	43	18
Sharp, James L., New York, and J. D. Luther, Brooklyn, N. Y. Sad-iron.....	381,434	Apr. 17	1708	458	43	350
Sharp, John H., Columbus, N. J. Sand-band for vehicle-axes.....	380,528	Apr. 3	334	96	43	68
Sharp, John H., Columbus, N. J. Harrow.....	394,514	Dec. 11	1151	299	45	1299
Sharp, Thomas, Nashville, Tenn. Ore-washer.....	378,626	Feb. 28	1914	506, 507	42	894
Sharpe, George. (See Taylor, Murchison, and Sharpe.)						
Sharpe, John, assignor of one-half to J. A. Banfield, Toronto, Ontario, Canada. Combined latch and lock.....	381,435	Apr. 17	1709	458	43	350
Sharples, Joseph, Jr., Pawtucket, R. I. Joint and nozzle for hose.....	385,009	Dec. 25	1994	514	45	1483
Sharples, Philip M., West Chester, Pa. Driving device.....	388,456	Aug. 28	1946	521	44	967
Sharples, Philip M., West Chester, Pa. Anti-friction step for shafts.....	388,457	Aug. 28	1947	521	44	968
Sharpneck, Eliel L., assignor of one-half to J. C. Blake, Denver, Colo. Clamp for hose.....	393,400	Nov. 27	1786	472	45	966
Sharpneck, William S., Denver, Colo. Car-axle box.....	386,899	July 31	2335	613	44	445
Sharpneck, William S., Denver, Colo. Journal-box.....	392,465	Nov. 6	431	108	45	676
Sharpneck, William S., Chicago, Ill. Gas-engine.....	391,456	Oct. 23	1831	490	45	376
Shartle, Charles W., Middletown, Ohio. Slip-collar for pulleys.....	394,729	Dec. 18	1517	397	45	1384
Shartle, John M., Jackson, Mich. Dampening device for calender-rolls.....	388,921	Sept. 4	170	45	44	1105
Sharts, Theodore, New York, N. Y. Illuminating-tile.....	378,558	Feb. 28	1822	480	42	875
Sharts, Theodore, New York, N. Y. Illuminating-tile.....	378,559	Feb. 28	1823	481	42	875
Shatsick, John F., St. Louis, Mo. Shutter-worker.....	393,401	Nov. 27	1787	472	45	966
Shatto, John, Hebron, Iowa. Neck-yoke.....	395,007	Dec. 25	1992	514	45	1483
Shattuck, David H., Westford, Mass. Adjustable sizer for shafting.....	386,354	July 17	1496	397	44	306
Shattuck, Laforest A., Bloomsburg, Pa. Fountain-pen.....	390,039	Sept. 25	1883	497	44	1456
Shattuck, Laforest A., Bloomsburg, Pa. Cuff-holder.....	392,232	Nov. 6	81	19	45	610
Shaubach, John H., Brooklyn, N. Y. Vehicle-top curtain.....	388,591	Aug. 28	2135	573	44	1004
Shaver Corporation. (See Shaver, George F., assignor.)						
Shaver, George F., assignor to Shaver Corporation, New York, N. Y. Rotary tool-driver.....	377,783	Feb. 14	683	172	42	641
Shaver, George F., assignor to Shaver Corporation, New York, N. Y. Mechanical telephone.....	392,233	Nov. 6	82	20	45	610
Shaver, George F., assignor, by mesne assignments, to Shaver Corporation, New York, N. Y. Mechanical telephone.....	383,324	May 22	2154	569	43	954
Shaver, Sebern R. (See Wright and Shaver.)						
Shaw, Benjamin D., Beverly, Ohio. Road-cart coupling.....	395,296	Dec. 25	2440	627	45	1566
Shaw, Charles, Wolverhampton, county of Stafford, England. Wire fencing.....	386,270	July 17	1390	366	44	285
Shaw, Charles A. (See Chase, William R., assignor.)						
Shaw, Charles A., Boston, Mass., and L. W. Buxton; said Shaw assignor to said Buxton and I. Robbins, Jr., Nashua, N. H. Coffee-filter.....	383,916	June 5	106	31	43	1141
Shaw, Charles D. (See Driefer, Conrad L., assignor.)						
Shaw, Charles H., Brooklyn, N. Y., assignor to Seabury & Johnson, of New York. Sulphur candle.....	390,314	Oct. 2	156	43	45	34
Shaw, Edward J., Walsall, county of Stafford, England. Lamp-extinguisher.....	379,249	Mar. 13	560	156	42	1077
Shaw, Edwin H., Boston, assignor of nine-tenths to W. B. Frink and A. W. Hayes, Revere, Mass. Apparatus for manufacturing gaseous fuel or illuminating-gas.....	378,940	Mar. 6	113	32, 33	42	988
Shaw, Elver H., and J. D. Wixom, Clay Centre, Kans. Door-check.....	389,605	Sept. 18	1229	321	44	1319
Shaw, Frank E. (See Clark, Francis D., assignor.)						
Shaw, Henry, New Orleans, La., assignor to Welsbach Incandescent Gas Light Company, of New Jersey. Incandescent gas-lamp.....	388,727	Aug. 28	2331	627	44	1041
Shaw, Henry, New Orleans, La., and J. A. McCulloch, Glencoe, Md., assignor to Welsbach Incandescent Gas Light Company, of New Jersey. Package comprising fragile articles.....	377,644	Feb. 7	438	112	42	578
Shaw, Henry F., Boston, Mass. Valve-gear.....	388,080	Aug. 21	1349	364	44	848
Shaw, James. (See Campbell and Shaw.)						
Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Bench-plane.....	377,645	Feb. 7	439	112	42	579
Shaw, John H., and W. Gillilan, assignors to Sargent & Company, New Haven, Conn. Door-check.....	378,728	Feb. 28	2059	543	42	921
Shaw, John O., Boston, Mass. Cranberry-gathering machine.....	389,114	Sept. 4	472	121, 122	44	1160

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Shaw Manufacturing Company. (See Campbell, Homer B., assignor.)						
Shaw Manufacturing Company. (See Campbell and Shaw, assignors.)						
Shaw, Nathaniel H., Somerville, Mass., assignor to American Automatic Gas-Lighting Company, Portland, Me. Apparatus for automatically lighting and extinguishing gas-burners.	393,271	Nov. 20	1594	{ 418 419 }	{ 45 45 }	920
Shaw, Nathaniel H., Somerville, Mass., assignor to American Automatic Gas-Lighting Company, Portland, Me. Automatic gas lighting and extinguishing apparatus.	393,525	Nov. 27	1984	519	45	1005
Shaw, Noah, <i>et al.</i> (See Durrin, Warren A., assignor.)	390,040	Sept. 25	1886	498	44	1456
Shaw, Samuel, Newton, Mass. Fire-place and damper	383,917	June 5	107	31	43	1141
Shaw, T. Jackson, Wilmington, Del., and J. M. Spiegle, Philadelphia, Pa., assignors to Boston Tow Boat Company, Boston, Mass. Towing-machine	379,823	Mar. 20	1428	379	42	1253
Shaw, Thomas, Newark, N. J. Water-pitcher	384,792	June 19	1418	372	43	1408
Shaw, Thomas, Philadelphia, Pa. Signaling apparatus	386,661	July 24	1956	517	44	407
Shaw, Thomas, Philadelphia, Pa. Miner's safety-lamp	390,262	Oct. 2	50	26	45	21
Shaw, Thomas, Philadelphia, Pa. Signal-tube for mines	394,214	Dec. 11	702	188	45	1214
Shaw, Thomas, Philadelphia, Pa. Apparatus for testing mine-gases	391,215	Dec. 11	705	188	45	1214
Shaw, Thomas, Philadelphia, Pa. Apparatus for testing mine-gases	389,017	Sept. 4	309	81	44	1131
Shaw, Urbian L., Westfield, Ind. Gate						
Shaw, William A. (See Keach, George D., assignor.)						
Shaw, William E. (See Jones, Louis D., assignor.)						
Shaw, William F., Boston, Mass. Adjustable shutter bower or fastener	393,929	Dec. 4	288	78	45	1127
Shay, James F., Toledo, Ohio. Device for removing water from gas and other pipes	385,378	July 3	57	17	44	13
Shay, James L., assignor of one-half to C. K. Thompson, Bridgeport, Conn. Ticket-clasp	382,274	May 1	580	147	43	620
Shea, Albert, Boston, Mass. Button-piece for boots or shoes	380,731	Apr. 10	645	178	43	138
Shea, Albert, assignor of one-half to F. A. Shea, Boston, Mass. Lemon-squeezer	382,774	May 15	1347	354	43	787
Shea, Francis A. (See Shea, Albert, assignor.)						
Sheahan, Maurice J. (See Ryan, John, assignor.)						
Shealey, George W., Hiawatha, Kans. Steam-boiler	379,336	Mar. 13	685	185	42	1101
Shear, William H., Albany, N. Y. Compensating watch-regulator	395,182	Dec. 25	2270	582	45	1534
Shearer, Arthur. (See Giles and Shearer.)						
Shearer, Brent, West Point, Miss. Sad-iron and plate-holder	384,723	June 19	1323	345	43	1388
Shee, Parke E., Chester, assignor to himself and R. W. Martin, Philadelphia, Pa. Cutter-bar for mowers and reapers	380,058	Mar. 27	1793	479	42	1332
Sheehan, John, and J. O. Kleemann, New York, N. Y. Window-guard	394,020	Dec. 4	414	111	45	1150
Sheehan, William E. (See Covell, Cram, and Sheehan.)						
Sheehy, James J., <i>et al.</i> (See Baldwin, William A., assignor.)						
Sheehy, Robert J., New York, N. Y. Telegraph-exchange system	386,922	Sept. 4	172	46	44	1105
Sheeley, Robert S., Galesburg, Ill. Vaporizer	382,836	May 15	1424	374	43	803
Sheets, Alfred T., Germany, assignor of one-half to Birdsall Manufacturing Company, South Bend, Ind. Clover-huller	381,487	Apr. 17	1788	476	43	364
Sheffer, George M. (See Conner, Sheffer, and Gilbert.)						
Sheffield, George V., assignor to himself and L. Sickler, Schenectady, N. Y. Printing-telegraph	394,302	Dec. 11	845	224	45	1242
Sheffield, Henry N., and J. K. Jamison, Seney, Ga. Car-coupling	391,487	Oct. 23	1833	491	45	376
Sheibley, Henry W. (See Brown, William, assignor.)						
Shield, Frank W., Hampton, assignor of one-half to T. R. Cooke, Norfolk, Va. Gang-plank for vessels	386,355	July 17	1497	397	44	306
Shelbourne, Robinson W., and J. H. Sublett, Blandville, Ky. Plow	377,646	Feb. 7	440	1.3	42	579
Shelby, Christopher C., Paterson, N. J. Bustle	395,183	Dec. 25	2271	582	45	1535
Shelby, William R., <i>et al.</i> (See Tracy, William P., assignor.)						
Sheldon Axle Company. (See Hall, O. Clifford, assignor.)						
Sheldon, C. E. (See Frost, John B., assignor.)						
Sheldon, Philo B., Erie, Pa. Automatic sand-mill toy	379,132	Mar. 6	390	111	42	1039
Sheldon, Richard B., Shortsville, N. Y., assignor to Empire Drill Company, of New York. Grain drill	392,694	Nov. 13	762	193	45	747
Sheldon, Richard B., Shortsville, N. Y., assignor to Empire Drill Company, of New York. Grain-drill	392,695	Nov. 13	763	193	45	747
Sheldon, William D., Providence, R. I. Automatic fluid-pressure regulator	379,824	Mar. 20	1429	379	42	1253
Sheldrick, David J., Columbus, Ohio. Drive-chain	377,121	Jan. 31	2033	532	42	419
Shell, John W., Evening Shade, Ark. Lint collecting and compacting apparatus	382,775	May 15	1348	354	43	787
Shellabarger Live-Stock Car Company. (See Seitz, Nathaniel Z., assignor.)						
Shelley, George E., Butler, Ky. Fence	380,529	Apr. 3	335	96	43	68
Shelly, Latimer S., Sterling, Pa. Latch	386,271	July 17	1392	367	44	285
Shelmutt, Alfred D., assignor of one-third to W. H. Logan, Louisville, Ky. Force-pump	378,338	Feb. 21	1499	392	42	803
Shelton, Albert C. (See Harper, Boyd, and Shelton.)						
Shenfield, Abraham. (See Voorhis, Calvin, assignor.)						
Shenfield, Abraham, <i>et al.</i> (See Voorhis, Calvin, assignor.)						
Shenfield, Harry L., <i>et al.</i> (See Voorhis, Calvin, assignor.)						
Shepard, Amos, Plantsville, assignor to Peck, Stow & Wilcox Company, Southington, Conn. Tinsmith's heading-machine	377,470	Feb. 7	185	43	42	531
Shepard, Charles D. (See Leininger, Frederic, assignor.)						
Shepard, Charles D., New York, N. Y. Centrifugal liquid-separator	379,133	Mar. 6	391	111	42	1039
Shepard, Charles D., New York, N. Y. Centrifugal liquid-separator	379,134	Mar. 6	393	111	42	1040
Shepard, Charles D., New York, N. Y. Submarine torpedo-vessel	379,991	Mar. 27	1689	451	42	1313
Shepard, Charles D., New York, N. Y. Centrifugal liquid-separator	390,711	Oct. 9	714	189	45	150
Shepard, Charles D., Mamareneck, N. Y. Submarine vessel	379,992	Mar. 27	1693	452	42	1314
Shepard, Charles G., <i>et al.</i> (See Condon, Henson C., assignor.)						
Shepard, Charles G., <i>et al.</i> (See Condon, Shepard, and Adams.)						
Shepard, Charles H. (See Craig, William R., assignor.)						
Shepard, George E., Jersey City, N. J. Tennis-net	394,138	Dec. 4	589	158	45	1184
Shepard, Jason H. (See Richardson, George W., assignor.)						
Shepard, Lewis, Mace, Ind. Farm-gate	383,078	May 15	1792	464	43	875
Shepard, Sylvander C., assignor of one-half to E. D. Carr, Akron, Ohio. Friction-clutch	380,140	Mar. 27	1911	510	42	1356
Shepard, Vinton R., Covington, Ky. Passenger-ticket	384,291	June 12	674	180	43	1259
Shepard, Walter J. (See Condon, Shepard, and Adams, assignors.)						
Shepard, Walter J., <i>et al.</i> (See Condon, Henson C., assignor.)						
Shepard, William P., assignor of three-fourths to M. C. Yarwood, P. Borden, and R. G. Buffington, Fall River, Mass. Incubator	387,742	Aug. 14	627	214	44	737
Shepard, William P., assignor of three-fourths to M. C. Yarwood, P. Borden, and R. G. Buffington, Fall River, Mass. Heat-regulator for incubators	394,886	Dec. 18	1788	464	45	1436
Shepard, William T., <i>et al.</i> (See Henry, John, assignor.)						
Shepardson, George D., Granville, Ohio. Switch for electric motors	389,254	Sept. 11	700	178	44	1213
Shepardson, Perry L., Pittsfield, Mass. Folding bed	389,018	Sept. 4	310	81	44	1192
Shephard, John A., Cleveland, Ohio. Wall-covering	376,350	Jan. 10	822		42	178
Shepherd, Augustus, Hennepio, Ill. Fence-gate	384,793	June 19	1420	372	43	1409



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Shepherd, Benjamin F., Pleasantville, Ind. Hoisting apparatus	392,571	Nov. 6	575	145	45	705
Shepherd, Charles H., New York, N. Y. Valve mechanism for sewerage systems	384,396	June 12	834	217	43	1287
Shepherd, Charles H., New York, N. Y. Valve mechanism for sewerage systems	384,397	June 12	835	218	43	1288
Shepherd, George W., Philadelphia, Pa. Cable railway	389,719	Sept. 18	1409	368	44	1353
Shepherd, James W., et al. (See Wallwork, Roughsedge, assignor.)						
Shepherd, Josiah, Jeffersonville, Ohio. Washing-machine	388,728	Aug. 28	2331	628	44	1041
Shepherd, Lewis T., assignor of three-fourths to R. E. Miller, W. M. Taylor, H. L. Young, and W. H. Shepherd, College Corner, Ohio. Door	376,048	Jan. 3	449	119	42	90
Shepherd, Thomas W., Peabody, Mass. Metallic thermometer	362,561	May 8	1038	264	43	718
Shepherd, William H., et al. (See Shepherd, Lewis T., assignor.)						
Shepler, Cassius R., assignor to G. Westinghouse, Jr., Pittsburg, Pa. Conduit for gas or other fluids	394,620	Dec. 18	1338	350	45	1348
Sheppard, Charles W., Milwaukee, Wis. Tag-fastener	385,965	July 10	931	246	44	190
Sheppard, Frank L., Altoona, Pa. Brake-shoe	385,966	July 10	932	246	44	190
Sherburne, Charles K., Minneapolis, Minn. Sewer shoe	376,113	Jan. 10	542	144	42	115
Sherburne, Charles W., and F. A. Taber, Somerville, assignors to Star Brass Manufacturing Company, Boston, Mass. Car-lamp	377,961	Feb. 14	938	245	42	691
Sheridan, James, assignor to Pettce Machine Works, Newton, Mass. Evener for railway-heads	381,284	Apr. 17	1484	399 400	43	305
Sheridan, Thomas F., Springfield, Ill. Stem winding and setting watch	376,015	Jan. 3	401	106	42	80
Sheridon, William, assignor of forty-five one-hundredths to W. Leutz, North Toledo, Ohio. Wheel	379,250	Mar. 13	561	156	42	1077
Sherington, John A., New York, N. Y. Slatted blind	381,640	Apr. 24	2024	531	43	429
Sherman, Andrew T. (See Talbott, Ezra W., assignor.)						
Sherman, Cornelius A., et al. (See Thompson, Elias H., assignor.)						
Sherman, Daniel H., Brooklyn, N. Y. Device for coupling the steam-pipes of railway-trains	391,089	Oct. 16	1284	343	45	263
Sherman, Eugene A., Plover, Wis. Ladder	382,114	May 1	352	92	43	578
Sherman, Gardner M., Springfield, Mass. Vaporizer	384,794	June 19	1422	373	43	1409
Sherman, Henry, assignor of one-half to J. Popen and A. Van Diest, Luctor, Kans. Keeper for the loose ends of straps	391,763	Oct. 23	2202	595	45	453
Sherman, Lewis, Milwaukee, Wis. Triturator	383,020	May 15	1699	442	43	857
Sherman, Wardell B., deceased, Oneida, N. Y.; M. E. and C. G. Foland administrators. Railway-signal	381,086	Apr. 10	1202	322	43	242
Sherman, William P., Wilson's Mills, Ohio. Log-turner	386,853	July 31	2267	507	44	472
Sherman, Willis S., Marinette, Wis. Pneumatic dental plugger	383,152	May 22	1908	499	43	907
Sherman, Willis S., Marinette, Wis. Drilling or chipping device	387,115	July 31	2641	695	44	544
Sheritzer, John W. (See Young and Sheritzer.)						
Sherwin, Edwin C., Brandon, Wis. Holdback	394,730	Dec. 18	1518	397	45	1385
Sherwin Williams Company. (See Hopkins, Coventry, Neymann, and Beardslee, assignors.)						
Sherwood, Alexander B., Chicago, Ill. Paper-file	381,959	May 1	85	21	43	531
Sherwood, Alexander B., Chicago, Ill. Paper-holder	389,606	Sept. 18	1230	322	44	1319
Sherwood, C. A., et al. (See Hart, Thomas J., assignor.)						
Sherwood, Calvin W., Chicago, Ill. Paper-holder	382,623	May 8	1133	292	43	736
Sherwood, James H., Brooklyn, N. Y. Bung	381,436	Apr. 17	1711	458	43	351
Sherwood, James H., Brooklyn, N. Y. Fire-kindler	386,499	July 24	1719	454	44	362
Sherwood, Mary C., Buffalo, N. Y. Stage-scenery	389,414	Sept. 11	937	245	44	1258
Shewmaker, John W., Terre Haute, Ind. Car-door	386,611	July 24	1822	497	44	393
Shibe, B. F., et al. (See Brown, Samuel, assignor.)						
Shibley, William H., and L. Payne, Louisville, Ky. Top-prop for carriages	391,090	Oct. 16	1287	344	45	263
Shickle, Joseph, Broadway, Va. Harvester	382,910	May 15	1526	399	43	824
Shiek, Daniel W., assignor of one-half to J. W. Rubel, Ottumwa, Iowa. Vending apparatus	385,575	July 3	366	95	44	73
Shields, Andrew M., North Tennesseal, Cal. Lead-bath apparatus for working ores	393,454	Nov. 27	1863	491	45	981
Shields, David, et al. (See Harrell, Joseph J., assignor.)						
Shields, Julius C. (See Dettra and Shields.)						
Shill, John, Omaha, Nebr. Washing-machine	377,277	Jan. 31	2250	595	42	461
Shilling, Jacob, Parvin, Pa. Fence	393,081	Nov. 20	1323	345	45	865
Shimer, George S., assignor to S. J. Shimer & Sons, Milton, Pa. Cutter-head	385,325	June 26	2238	573 574	43	1578
Shimer, Samuel J., Milton, Pa. Machine for making washers	392,886	Nov. 13	1043	269 270	45	804
Shimer, Samuel J., assignor to S. J. Shimer & Sons, Milton, Pa. Cutter-head and cutter-head gage	380,530	Apr. 3	336	96	43	68
Shimer, Samuel J., assignor to S. J. Shimer & Sons, Milton, Pa. Tool-holder for cutter-heads	387,924	Aug. 14	1101	292	44	791
Shimer, Samuel J., assignor to S. J. Shimer & Sons, Milton, Pa. Cutter-head	387,925	Aug. 14	1102	292 293	44	792
Shimer & Sons, Samuel J. (See Shimer, George S., assignor.)						
Shimer & Sons, Samuel J. (See Shimer, Samuel J., assignor.)						
Shinn, Thornton A., Coolbaugh's, Pa. Thill-coupling	382,562	May 8	1040	265	43	718
Shipley, Alfred J., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button	382,115	May 1	353	93	43	579
Shipley, Alfred J., H. T. Sperry, and T. R. Hyde, Jr., Waterbury, Conn. Button	379,912	Mar. 20	1577	415	42	1280
Shipley, Daniel F. (See Smith and Shipley.)						
Shipley, John F., assignor of one-half to W. T. Cole, Council Bluffs, Iowa. Wire-stretcher	380,531	Apr. 3	337	96	43	69
Shipley, Lewis C., Detroit, Mich. Vehicle-top	389,767	Sept. 18	1469	385	44	1366
Shipley, Ralph J., Waterbury, Conn., assignor to G. W. McGill, New York, N. Y. Blank-holder for punching-machines	382,911	May 15	1528	400	43	825
Shipley, Ralph J., Waterbury, Conn., assignor to G. W. McGill, New York, N. Y. Machine for making paper-fasteners	390,315	Oct. 2	157	44	45	35
Shipman, Madison D. (See Jones, Henry, assignor.)						
Shipman, Madison D., De Kalb, Ill. Separable button	388,225	Aug. 21	1589	423	44	872
Shipman, Madison D., De Kalb, Ill. Separable button	391,200	Oct. 16	1434	383	45	222
Shippee, Charles W., et al. (See Trowbridge, Augustus S., assignor.)						
Shippee, Charles W., Milford, Mass. Machine for goring uppers	386,500	July 24	1720	455	44	362
Shippee, Charles W., Milford, Mass. Machine for manufacturing Congress boots	390,263	Oct. 2	91	26	45	21
Shippee, Lodowick U. (See Grattan and Shippee.)						
Shive, Samuel, Forks, Pa. Belt shifter and tightener	388,729	Aug. 28	2332	628	44	1041
Shivlar, John. (See Newbanks and Shivlar.)						
Shlaudeman, Frank, Decatur, Ill. Oiling apparatus for gas-compressors	378,941	Mar. 6	114	33	42	989
Shniedewend, Paul, and J. L. Lee, Chicago, Ill. Galley	389,607	Sept. 18	1231	322	44	1319
Shobe, Abraham A., and W. Embley, Jerseyville, Ill. Gripper for cable railways	379,993	Mar. 27	1695	452	42	1314
Shobe, Abraham A., and W. Embley, Jerseyville, Ill. Gripping device for cable railways	379,991	Mar. 27	1696	452 453	42	1314
Shobe, Abraham A., and W. Embley, Jerseyville, Ill. Cable railway	388,081	Aug. 21	1350	364	44	848

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Shebe, Edward, Louisville, Ky. Oil can and pump	389,255	Sept. 11	701	179	44	1213
Shock, Abraham H., assignor of one-half to S. Kaufman, Lancaster, Pa. Cigar-making machine	388,314	Aug. 21	1736	464	44	922
Shoe, William W., Nether Providence, Pa. Combined hat and clothes hook	394,792	Dec. 18	1631	427	45	1407
Shoemaker, Frank A., Buffalo, N. Y. Grinding-machine	384,795	June 19	1422	373	43	1409
Shoemaker, George W., assignor of two-thirds to E. Miles, Dalton, and A. Harvey, Scranton, Pa. Spinning-machine	386,900	July 31	2336	{ 613 614 }	{ 44 }	485
Shoeninger, Adolph. (See Unzicker, Otto, assignor.)						
Shoff, Ralph, Bolivar, N. Y. Device for cleaning oil-wells and promoting the flow of oil	391,431	Oct. 23	1755	470	45	360
Sholder, Louis H., Cleveland, Ohio. Corn-husker	379,825	Mar. 20	1429	379	42	1254
Sholder, Louis H., Cleveland, Ohio. Wire scoop	384,090	June 5	363	103	43	1191
Shonk, Charles W., Chicago, Ill. Sign	376,919	Jan. 24	1739	457	42	353
Shontz, Alpheus J., Bloomville, Ohio. Roller-mill	388,730	Aug. 28	2334	{ 628 629 }	{ 44 }	1041
Shook, Edward, Erie, Ill. Wheel-plow	375,777	Jan. 3	77	23	42	19
Shorey, Samuel W., Boston, Mass. Rivet	388,458	Aug. 28	1948	521	44	968
Shorey, Samuel W., and W. S. Richardson, Boston, assignors to Ball and Socket Fastener Company, Nashua, N. H. Fastening for overshoes	390,405	Oct. 2	295	77	45	62
Shorrock, James L., Accrington, county of Lancaster, England, assignor to T. C. Massey, Chicago, Ill. Drill-brace	376,757	Jan. 24	1491	393	42	309
Short, Jacob, Concordia, Kans. Instrument for measuring vertical and horizontal distances	383,375	May 22	2224	590	43	966
Short, Sidney H., assignor to United States Electric Company, Denver, Colo. Spring-jack for electric railways	379,081	Mar. 6	319	92	42	1026
Short, Sidney H., assignor to United States Electric Company, Denver, Colo. Slot-switch for electrical and cable railways	379,082	Mar. 6	320	93	42	1026
Short, Sidney H., assignor to United States Electric Company, Denver, Colo. Electric motor for railways	381,650	Apr. 24	2025	531	43	430
Short, Sidney H., assignor to United States Electric Company, Denver, Colo. Current-collector for series electric railways	385,379	July 3	58	17	44	13
Short, Sidney H., assignor to United States Electric Company, Denver, Colo. Electric locomotive	391,887	Dec. 18	1789	464	45	1436
Short, Sidney H., assignor of one-half to N. B. Abbott, Columbus, Ohio. Sectional double-line electric railway	394,139	Dec. 4	590	153	45	1184
Short, Willard N. (See Mains, John F., assignor.)						
Shortt, Edward G., Carthage, N. Y. Pumping-engine	389,769	Sept. 18	1471	{ 385 386 387 }	{ 44 }	1367
Shortt, Edward G., Carthage, N. Y. Duplex pumping engine	389,770	Sept. 18	1474	{ 386 387 }	{ 44 }	1367
Shortt, Edward G., Carthage, assignor of one-half to C. G. Emery, Brooklyn, N. Y. Steam-engine	389,768	Sept. 18	1470	385	44	1366
Shetton, John W., and T. H. Barnes, Montreal, Quebec, Canada. Car-brake	392,829	Nov. 13	969	{ 248 249 }	{ 45 }	788
Shotwell, Isaac, Bancroft, Mich. Car-coupling	389,669	Sept. 18	1334	349	44	1338
Shotwell, Walter S., Grand Rapids, Mich. Lathe for turning wooden dishes	389,824	Sept. 18	1547	409	44	1382
Shoup, Daniel F., assignor of one-half to C. Snedley, Ludington, Mich. Packing and bar-reeling machine	394,305	Dec. 11	849	{ 225 226 }	{ 45 }	1243
Showers, Joseph W., Reedsburg, Wis. Bob-sleigh	384,724	June 19	1324	345	43	1388
Showalter, Levi, Bectown, assignor of one-fourth to R. B. Showalter, Lancaster, Wis. Car-coupling	388,792	Aug. 28	2425	654	44	1059
Showalter, Reuben B. (See Showalter, Levi, assignor.)						
Shrader, Adam, Justus, Ohio. Portable fence	385,531	July 3	300	77	44	61
Shrader, Louis L., New Albany, Ind. Boot or shoe	380,408	Apr. 3	147	42	43	31
Shriver, Robert, et al. (See Allfree, James B., assignor.)						
Shubert, Jesse M., Water Valley, Ky. Reversible folding harrow	379,826	Mar. 20	1430	380	42	1254
Shuck, Jacob, Blue Springs, Nebr. Cultivator	377,174	Jan. 31	2097	{ 552 553 }	{ 42 }	433
Shuck, John S., Fullerton, Nebr. Draft-equalizer	393,271	Nov. 20	1599	419	45	921
Shue, Clement S., Shepherds, Mich. Bridle attachment	381,285	Apr. 17	1485	400	43	305
Shuffleton, Samuel L., Eureka, Cal. Rotary water-meter	375,899	Jan. 3	298	62	42	48
Shuler, Andrew F., Arcanum, Ohio. Two-wheeled vehicle	394,515	Dec. 11	1152	{ 299 300 }	{ 45 }	1299
Shull, Samuel, assignor of one-fourth to W. N. Davison, Toston, Mont. Ter. Car-coupling	389,771	Sept. 18	1475	387	44	1367
Shults, John, West Berne, N. Y. Car-coupling	385,731	July 10	596	154	44	123
Shults, Frank J., et al. (See Schad, Barnhard, assignor.)						
Shults, Joseph C., et al. (See Schad, Barnhard, assignor.)						
Shultz, Charles H., St. Joseph, Mo. Vapor-burner for gas-stoves	377,407	Feb. 7	58	16	42	506
Shultz, Charles H., St. Joseph, Mo. Vapor-burner	380,356	Apr. 3	80	25	43	18
Shultzen, Henry, Elizabeth, N. J., assignor to Standard Metal Tie and Construction Company, of New Jersey. Metal railway tie	386,356	July 17	1498	397	44	306
Shultzen, Henry, Elizabeth, N. J., assignor to Standard Metal Tie and Construction Company, of New Jersey. Railway metal tie	386,357	July 17	1500	398	44	306
Shuman, Grant W., Lake Station, Ind. Harvester	377,647	Feb. 7	442	{ 113 114 }	{ 42 }	579
Shumway, Albert W., Northampton, assignor to Florence Machine Company, Florence, Mass. Portable tin oven for oil or gas stoves	383,830	May 29	2933	775	43	1111
Shupe, Clinton M., Amanda, Ohio. Car-coupling	376,213	Jan. 10	695	184	42	143
Shurtleff, Asahel M., Boston, Mass. Atomizer	379,611	Mar. 20	1102	293	42	1188
Shurtleff, Hiram S., Boston, Mass. Shaving-glass	392,466	Nov. 6	432	108	45	676
Shurtleff, Seth H., and L. R. Haag, assignors to Ohio Machine Company, Middleport, Ohio. Nail-plate feeder	379,135	Mar. 6	395	112	42	1040
Shuttleworth, Tom I., Amsterdam, N. Y., assignor of one-half to J. Burt, Philadelphia, Pa. Cut pile fabric	391,652	Oct. 23	2052	555	45	423
Sibley, Albert P., assignor to Sibley & Ware, South Bend, Ind. Pulley	384,871	June 19	1548	402	43	1431
Sibley, Albert P., and G. O. Ware, South Bend, Ind. Bushing for split pulleys	394,407	Dec. 11	1002	{ 262 263 }	{ 45 }	1272
Sibley, Clarence C., New York, N. Y., assignor to New Haven Clock Company, New Haven, Conn. Electrical apparatus	381,856	Apr. 24	2341	607	43	489
Sibley, Clarence C., assignor to Splitdorf Wire Company, New York, N. Y. Insulated conductor	385,576	July 3	367	95	44	73
Sibley, Edwin E., Chelsea, Mass. Knitting-machine	386,272	July 17	1392	367	44	286
Sibley, Edwin E., Chelsea, Mass. Knitting hose-pipe	386,273	July 17	1396	368	44	286
Sibley, Edwin E., and C. Allen, assignors to American Fire Hose Manufacturing Company, Chelsea, Mass. Tool for applying couplings to hose	382,776	May 15	1349	355	43	787

*Alphabetical list of patentees—Continued.*

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Disg.	Vol.	Page.
Sibley & Ware. (See Sibley, Albert P., assignor.)						
Sickler, Hernando O., Buffalo, N. Y. Traction-engine	380,601	Apr. 3	446	136	43	91
Sickler, Lewis. (See Sheffield, George V., assignor.)						
Siddell, George, Sheffield, county of York, England. Appliance for manipulating large forgings	380,950	Apr. 10	976	258 259	43	199
Sidle, John, assignor of one-half to P. S. Sidle, Shreve, Ohio. Bag-holder	391,942	Dec. 18	1884	487	45	1453
Sidle, Philip S. (See Sidle, John, assignor.)						
Sidway, Gilbert D., Jackson, Miss. Banana-carrier	376,555	Jan. 17	1173	308	42	239
Sidway, Henry T., Chicago, Ill. Letter-box	391,201	Oct. 16	1435	384	45	292
Siebel, John E., Chicago, Ill. Generating electricity and purifying water	385,145	June 26	1960	502	43	1523
Siebel, John E., Chicago, Ill. Ice or refrigerating machine	388,592	Aug. 28	2136	573	44	1004
Siebert, Charles A. (See Hunter, James M., assignor.)						
Siebert, Hans. (See Weinberg and Siebert.)						
Siebert, Louis, Chicago, Ill. Apparatus for painting shingles	388,082	Aug. 21	1350	364	44	848
Siebler, George E., Dayton, Ohio. Saw-handle	383,376	May 22	2225	590	43	966
Siefert, Henry O. R., Milwaukee, Wis. Educational appliance	380,532	Apr. 3	338	97	43	69
Siegenthaler, Harvey N., Springfield, Ohio. Embalming-instrument	387,454	Aug. 7	378	98	44	647
Sielaff, Max, Berlin, Germany. Vending apparatus	378,982	Mar. 6	168	48	42	999
Siemens & Co., Gebrüder. (See Siemens, Louis, assignor.)						
Siemens, Frederick, Dresden, Saxony, Germany. Open-hearth furnace	386,935	July 31	2388	623 629	44	495
Siemens & Halske. (See Lauckert, Edward F. H. H., assignor.)						
Siemens & Halske. (See Siemens, Werner, assignor.)						
Siemens & Halske. (See Von Hecker-Ateneck and Hoffmann, assignors.)						
Siemens, Louis, assignor to Gebrüder Siemens & Co., Charlottenburg, Prussia, Germany. Specific-gravity apparatus	380,533	Apr. 3	340	97	43	69
Siemens Lunzen Company. (See Moreau, Eugène, assignor.)						
Siemens, Werner, assignor to Siemens & Halske, Berlin, Germany. Manufacturing insulated conductors						
Siersdorfer, Michael, Louisville, Ky. Siphon for starting the flow of liquids	395,083	Dec. 25	2097		45	1505
Siersdorfer, Michael, Louisville, Ky. Automatic gas-extinguisher	383,153	May 22	1910	499	43	908
Siersdorfer, Michael, Louisville, Ky. Siphon	383,497	May 29	2431	646	43	1011
Siersdorfer, Michael, Louisville, Ky. Siphon	387,455	Aug. 7	379	99	44	647
Silbereisen, William L., Brooklyn, N. Y. Hinged window-sash	385,577	July 3	368	96	44	73
Silkwood, Thomas P., assignor of one-half to L. D. Foreman, Bluff Dale, Ill. Nut-lock	393,725	Nov. 27	2278	598	45	1063
Sigman, Jule J., Holly Springs, Miss. Plow	389,487	Sept. 11	1040	277	44	1277
Sill, Charles T., et al. (See Lore, George W., assignor.)						
Sill, George S., et al. (See Lore, George W., assignor.)						
Sill, Richard V. R. (See Larned and Sill.)						
Silliman, Robert F., Troy, N. Y. Underground electrical conduit	378,021	Feb. 14	1021	267	42	707
Silliman, Robert F., Troy, N. Y. Electrical conductor and insulating conduit	389,943	Sept. 25	1744	402	44	1428
Silsby Manufacturing Company. (See Medden, Edwin, assignor.)						
Silsby, William H., Martin's Ferry, Cal. Paddle-belt for propellers	381,286	Apr. 17	1486	400	43	305
Silvers, Walter B., Indianapolis, Ind. Spring trace-holder	377,915	Feb. 14	869	223	42	677
Silvester, Henry, St. Louis, Mo. Motor	393,862	Dec. 4	189	52	45	1107
Silvis, Jonathan M., Kittanning, Pa. Wrench	387,456	Aug. 7	381	99	44	648
Simcoe, Thomas J. (See Fisk and Phelps, assignors.)						
Simmonds, William, Yonkers, N. Y. Window-blind fastener	383,596	May 29	2565	679	43	1038
Simmonds, William, assignor of two-thirds to L. E. and W. H. Belknap, Yonkers, N. Y. Hat-stretching machine						
Simmons, Calvin H., Munford, Ala. Cotton-chopper	383,254	May 22	2056	540	43	936
Simmons, Charles H., Brooklyn, N. Y. Device for tapping mains	387,262	Aug. 7	92	23	44	590
Simmons, David, Northville, Mich. Carriage-lifting jack	378,116	Feb. 21	1157	361	42	741
Simmons, George O., Brooklyn, N. Y. Elastic buckle-shield	377,784	Feb. 14	684	173	42	641
Simmons, James F., Manistique, Mich. Conveyor	383,244	May 1	535	136	43	612
Simmons, Thornton H., and R. M. Eastman, Boston, Mass. Automatic coat-holder	387,820	Aug. 14	932	241	44	759
Simms, James F. (See Costello, John, assignor.)	380,602	Apr. 3	447	126	43	91
Simon, Dorota. (See Fels and Simon.)						
Simon, Henry. (See Seck, Heinrich, assignor.)						
Simon, Henry, Mount Street, Manchester, county of Lancaster, England. Sieve	390,913	Oct. 9	1000	262	45	202
Simon, Henry, Manchester, county of Lancaster, England. Dust-collector	394,408	Dec. 11	1002	263	45	1272
Simon, Herman J., Peshigo, Wis. Sleigh	393,563	Dec. 4	190	52	45	1108
Simon, Louis, Chicago, Ill. Washing-machine	395,084	Dec. 25	2098	543 544	45	1505
Simon, R. & H. (See Couche, Jules, assignor.)						
Simonds, Alvan A., Dayton, Ohio. Paper-drying machine	378,266	Feb. 21	1392	365	42	783
Simonds, George F., Fitchburg, Mass. Die for making rolled forgings	381,091	June 5	364	103	43	1191
Simonds, George F., Fitchburg, Mass. Die for making rolled forgings	381,092	June 5	365	103	43	1191
Simonds, George F., assignor to Simonds Rolling Machine Company, Fitchburg, Mass. Die for making rolled forgings. (Reissue.)	10,928	May 8	1212	314	43	752
Simonds Rolling Machine Company. (See Simonds, George F., assignor.) (Reissue.)						
Simonds, William E. (See Herrick, Frank J., assignor.)						
Simons, Frank D. (See Simons and Beach.)						
Simons, Thomas A. and F. D., and A. Beach, Columbus, Ohio. Store-service apparatus	382,010	May 1	189	49	43	549
Simpkin, William, Richmond, Va. Apparatus for making ammonium sulphate	376,351	Jan. 10	883	231	42	178
Simpkin, William, Richmond, Va. Steam-trap and boiler-feeder	385,014	June 26	1761	456	43	1483
Simpson, Andrew J., Morrow, Ohio. Grain-measuring apparatus	377,278	Jan. 31	2252	595	42	461
Simpson, Andrew J., Lowell, Mass. Automatic heat-regulator for vulcanizing-baths	392,696	Nov. 13	764	194	45	748
Simpson, Edward, Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Mill for rolling side-flanged guard-rails	394,021	Dec. 4	415	112	45	1151
Simpson, Edward, Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Mill for rolling side-flanged grooved rails	394,022	Dec. 4	416	112	45	1151
Simpson, Edward, Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Mill for rolling side-webbed girder-rails	394,023	Dec. 4	416	112	45	1151
Simpson, Edward, Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Mill for rolling side-flanged center-bearing rails	394,024	Dec. 4	417	112	45	1151
Simpson, Greenleaf W. (See Levasseur, John E., assignor.)						
Simpson, James. (See Parnell and Simpson.)						
Simpson, James H., assignor to Carnegie, Phipps & Co., (limited), Pittsburg, Pa. Die for forging draw-bars	386,724	July 24	2038	536 537 538	44	422
Simpson, James H., assignor to Carnegie, Phipps & Co., (limited), Pittsburg, Pa. Manufacture of couplers	386,725	July 24	2040	537 538	44	422
Simpson, James H., assignor to Carnegie, Phipps & Co., (limited), Pittsburg, Pa. Die for the manufacture of draw-bars	386,726	July 24	2044	538	44	422
Simpson, James T., Washington, D. C. Attachment for pockets	378,729	Feb. 28	2060	543	42	921

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Simpson, James T., Iola, Tex. Insecticide.....	388,315	Aug. 21	1739	.....	44	932
Simpson, Lizzie E., New York, N. Y. Puzzle.....	388,226	Aug. 21	1591	424	44	892
Simpson, Peter L., Minneapolis, Minn. Brick-machine.....	384,872	June 19	1549	402 403	43	1431
Simpson, Thomas J., Worthington, Minn. Heating by compressed hot or superheated air.....	381,589	Apr. 24	1944	512 513	43	413
Simpson, Thomas J., Worthington, Minn. Wind-propelled swing.....	386,358	July 17	1501	398	44	307
Simpson, William L., Philadelphia, Pa. Exhaust-steam head.....	395,184	Dec. 25	2272	582 583	45	1535
Simpson, William L., Philadelphia, Pa. Separator.....	395,185	Dec. 25	2273	583	45	1535
Sims, Joseph W., Cincinnati, Ohio. Car-brake.....	388,731	Aug. 28	2335	629	44	1042
Sinclair, Harry W., assignor of one-half to G. H. Chadeayne, Buffalo, N. Y. Burglar-alarm.....	386,359	July 17	1503	398	44	307
Sinclair, J. D., et al. (See Richards, John, assignor.)						
Sinclair, Robert C., London, and J. Hodson, Burton-on-Trent, county of Stafford, England. Apparatus for effecting the turning of malt or grain.....	379,136	Mar. 6	397	112	42	1040
Singer, Christian G., assignor to himself, B. Boyer, and A. C. Seaman, Lebanon, Pa. Metallic railway tie and chair.....	379,612	Mar. 20	1104	293	42	1189
Singer, George, and R. H. Lea, Coventry, county of Warwick, England. Velocipede.....	382,837	May 15	1425	374	43	803
Singer, George S., Cardington, Ohio. Poultry-brooder.....	381,960	May 1	87	21	43	531
Singer, Joseph, Chicago, Ill. Fringe.....	380,141	Mar. 27	1912	510	42	1356
Singer Manufacturing Company of New Jersey. (See Coombs, A. Lincoln, assignor.)						
Singer Manufacturing Company of New Jersey. (See Diehl, Philip, assignor.)						
Singer Manufacturing Company of New Jersey. (See Greene, James G., assignor.)						
Singer Manufacturing Company of New Jersey. (See Griest, John M., assignor.)						
Singer Manufacturing Company of New Jersey. (See Knight, William A., assignor.)						
Singer Manufacturing Company of New Jersey. (See Mallett, Francis W., assignor.)						
Singer Manufacturing Company of New Jersey. (See Miller, Lebbcus B., assignor.)						
Singer Manufacturing Company of New Jersey. (See Parsons, Emory S., assignor.)						
Singer Manufacturing Company of New Jersey. (See Suttler and Kuehn.)						
Singer, William H., Allegheny, Pa. Manufacture of saw-plates.....	390,809	Oct. 9	849	226	45	174
Singer, William H., Allegheny, Pa. Apparatus for forming compressed steel ingots.....	390,810	Oct. 9	852	227	45	175
Singier, Léonce A. (See Rouillé and Singier.)						
Singleton, Benjamin R., and C. D. Hoffman, St. Louis, Mo. Cable-grip for railways.....	391,202	Oct. 16	1436	384	45	292
Sinkler, James F., Troy, Tenn. Self-propelling carriage.....	385,881	July 10	825	218 219	44	168
Sinn, Carl F., Montreal, Quebec, Canada. Dial-calendar with day-indicator.....	379,293	Mar. 13	627	171	42	1090
Sinning, Charles, and J. T. Avery, St. Louis, Mo. Lasting-machine.....	387,926	Aug. 14	1105	293 294 295 296	44	792
Sinning, Emile, St. Louis, Mo. Coffin-fastener.....	377,648	Feb. 7	451	114	42	580
Sincock, William P., Newark, N. J. Finger-ring.....	385,073	June 26	1862	475	43	1503
Sinsabaugh, Edwin L., et al. (See Whalen, Michael H., assignor.)						
Sintz, Clark, Springfield, Ohio. Gas-engine.....	383,775	May 29	2844	748 749	43	1093
Sipe, Henry, Cleburne, Tex. Swinging gate.....	380,772	Apr. 10	707	195	43	150
Siriex, Léon, San Francisco, Cal., assignor to Siriex Mariners Compass Company, of California. Correcting device for ships' compasses.....	378,528	Feb. 28	1775	469	42	867
Siriex Mariners Compass Company. (See Siriex, Léon, assignor.)						
Sisco, Charles K. (See Gardner and Sisco.)						
Sisco, Norman D., North Topeka, Kans. Oven for gasolene or other vapor stoves.....	394,216	Dec. 11	707	188 189	45	1214
Sisum, William H. H. (See Monroe and Sisum.)						
Sisum, William H. H., Brooklyn, N. Y. Machine for cutting match-sticks.....	382,442	May 8	850	217	43	680
Sithen, Charles K., et al. (See Yarbrough, Charles F., assignor.)						
Sitterly, Henry. (See Benedict, Irving W., assignor.)						
Sittig, Herman C., Normal Park, Ill. Steel.....	382,777	May 15	1351	355	43	788
Sittig, Herman C., Normal Park, Ill. Steel.....	390,406	Oct. 2	296	77	45	63
Sixbey, Herman. (See Green, George A., assignor.)						
Sjöström, Johannes, Gefle, Sweden. Fence.....	387,116	July 31	2643	695 696	44	545
Sjöström, Jonas, New York, N. Y. Sash-balance.....	387,662	Aug. 14	705	181	44	715
Skaar, Olav R., et al. (See Brown, Theodore H., assignor.)						
Skeffington, James, St. Paul, Minn. Plasterer's jacket.....	375,958	Jan. 3	314	84	42	65
Skelton, Francis, et al. (See Skelton, William M., assignor.)						
Skelton, William M., assignor of two-thirds to E. E. Dooley and F. Skelton, Greencastle, Ind. Sham pillow.....	387,603	Aug. 7	623	162	44	692
Skiles, Robert I., Denver, Colo., assignor to M. Wyrick and E. H. Bowman, Jr., Rock Island, Ill. Draft device for wagons.....	391,091	Oct. 16	1288	344	45	264
Skiles, Robert I., assignor to T. J. Medill, Jr., Rock Island, and W. G. Whitehead, Rock Island County, Ill. Spring-starter for vehicles, &c.....	395,297	Dec. 25	2441	627	45	1566
Skinner, Albert L., Yonkers, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Needle-loom.....	383,079	May 15	1793	464 465	43	875
Skinner, Allen L., et al. (See Larned, William M., assignor.)						
Skinner, Halcyon, Yonkers, N. Y. Motor-truck for cars.....	377,122	Jan. 31	2034	532	42	419
Skinner, Halcyon, Yonkers, N. Y. Gas-engine.....	389,608	Sept. 18	1233	322	44	1319
Skinner, Henry J., Buffalo, assignor to Troy Laundry Machinery Company, (limited,) Troy, N. Y. Mangle or ironing-machine.....	389,256	Sept. 11	702	179	44	1213
Skinner, James N., New Britain, Conn. Drill-chuck.....	381,857	Apr. 24	2343	607	43	489
Skinner, John, assignor of one-half to O. Stone, Flint, Mich. Car-coupling.....	386,854	July 31	2368	597	44	472
Skinner, John, and B. W. Jackson, Newnan, Ill. Railway water-tank.....	392,371	Nov. 6	287	73	45	640
Skinner, John B. (See Babbitt, Seward S., assignor.)						
Skinner, Richard K., Elkland, Pa. Divided car-axle.....	391,203	Oct. 16	1437	385	45	293
Skinner, Thomas, Chicago, Ill., assignor of one-half to A. R. Rumsey, Cleveland, Ohio. Steering vessels.....	382,563	May 8	1041	265	43	718
Skinner, William, Wyman, Iowa. Tile-ditching machine.....	376,352	Jan. 10	885	332	42	179
Skrivan, Ottokar, and F. Drorak, Vinohrady, Prague, Bohemia, Austria-Hungary. Watchman's electric controlling apparatus.....	376,920	Jan. 24	1740	457 458	42	355
Slack, Clarence M. (See Snyder and Rohrt, assignors.)						
Slack, Fred, Sngar Branch, Ind. Fence.....	376,556	Jan. 17	1173	309	42	239
Slaght, Charles P., Iowa City, assignor of one-third to L. E. Chamberlin, Tiffin, Iowa. Hay rake and leader.....	378,466	Feb. 28	1690	443 444	42	848
Slagle, Oliver, assignor of one-half to E. P. Clark and M. S. Baldwin, Monmouth, Ill. Buggy-top.....	379,546	Mar. 13	994	267	42	1161

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page
Slane, McGuire, La Cinto, N. Mex. Ter. Shingling-gage.....	383,597	May 29	2565	679	43	1038
Slappey, William A., Fort Valley, Ga., assignor of one-half to F. C. Houser. Pea sheller and separator.....	386,612	July 24	1853	497 498	41	393
Slappey, William H., Atlanta, Ga. Planter.....	390,712	Oct. 9	716	189	45	151
Slater, Henry B., assignor to Detroit Motor Company, Detroit, Mich. Dynamo.....	380,702	Apr. 10	598	161	43	120
Slater, John, Parthenia, Pa. Circular-saw holder.....	381,651	Apr. 24	2026	531	43	430
Slater, Warren G., Fremont, assignor to Peninsular Novelty Company, Grand Rapids, Mich. Machine for making staples.....	394,217	Dec. 11	708	189	45	1215
Slattery, Marmaduke M. M., Woburn, Mass. System and apparatus for electrical distribution.....	391,923	Oct. 30	2449	662	45	511
Slattery, Marmaduke M. M., assignor of one-half to Fort Wayne Electric Light Company, Fort Wayne, Ind. System of electrical distribution.....	386,936	July 31	2387	629	44	496
Slaughter, David, assignor of one-half to S. M. Fridy, Mountville, Pa. Cigar-mold press.....	384,177	Apr. 17	1334	356	43	276
Slaughter, Joel C., assignor of one-half to L. Helou, St. Louis, Mo. Extractor for coffee-pots.....	383,831	May 29	2935	776	43	1111
Slaymaker, Jasper. (See Williamson, Daniel, assignor.)						
Slaymaker, Samuel R. (See Troast, William F., assignor.)						
Sleeper, Charles W. (See Sleeper, Wright and C. W.)						
Sleeper, Charles W., Island Pond, Vt. Device for feeding sheets of tin.....	393,082	Nov. 20	1324	345	45	865
Sleeper, F. S. (See Getchell, John M., assignor.)						
Sleeper, Francis H., Coaticook, Quebec, Canada. Lifting-jack.....	379,294	Mar. 13	627	171	42	1091
Sleeper, Wright, Coaticook, Quebec, Canada, and C. W. Sleeper, Island Pond, Vt. Punching and shearing machine.....	393,036	Nov. 20	1270	338	45	855
Sleeth, Robert, Pittsburg, Pa. Mold.....	384,595	June 12	1127	297	43	1342
Sleicher, William, Jr., Troy, N. Y. Wheelbarrow.....	381,093	June 5	366	103 104	43	1191
Sleicher, William, Jr., Troy, N. Y. Nut-lock.....	388,508	Aug. 28	2015	541	44	981
Sleigh, Charles F., Fort Wayne, Ind. Rotary engine.....	389,328	Sept. 11	806	205 206	44	1233
Slentz, Alburice O., assignor to Peerless Reaper Company, Canton, Ohio. Grain-binding harvester.....	385,285	June 26	2176	556	43	1567
Slentz, Alburice O., assignor to Peerless Reaper Company, Canton, Ohio. Grain-binding harvester.....	388,793	Aug. 28	2426	655	44	1050
Slevin, James J., New York, N. Y. Horseshoe-pad.....	391,692	Oct. 16	1290	314	45	264
Sliger, William T., Coloma, Md. Device for setting saws.....	382,116	May 1	353	93	43	570
Sligh, David G., assignor of one-half to J. Bersch, Kingston, Pa. Bolt-cutter.....	389,766	Sept. 18	1467	384	44	1366
Sloan, George B. (See Hall and Sloan.)						
Sloan, John J., assignor of one-third to F. Saunders, Chicago, Ill. Photograph-exhibitor.....	392,292	Nov. 6	166	43	45	625
Sloan, Lina, Wausan, Wis. Vessel for transporting breakable goods.....	388,733	Aug. 28	2358	630	44	1042
Sloan, Lina, Wausan, Wis. Dish-washer.....	393,671	Nov. 27	2208	518 519	45	1050
Sloan, William D., Brooklyn, N. Y. Hand-rest for book-keepers.....	383,776	May 29	2847	749	43	1094
Sloane, George H., Boston, Mass. Galvanic battery.....	382,758	May 15	1300	341	43	778
Sloat, Edward A., La Fargeville, N. Y. Machine for grinding harrow-disks.....	388,732	Aug. 28	2357	629	44	1042
Sloat, George B., Philadelphia, Pa. Seat for bath-tubs.....	390,407	Oct. 2	297	78	45	63
Sloat, Isaac B., Delhi, N. Y. Clamping attachment for miter-boxes.....	391,093	Oct. 16	1290	344	45	264
Slocum, Eason L., Lincoln, R. I. Auxiliary fire-alarm box.....	392,641	Nov. 13	685	171	45	732
Slutz, Marion, Canton, Ohio. Tricycle.....	381,590	Apr. 24	1946	513	43	414
Small, Chester C., Malden, assignor to F. F. Raymond, 2d, Newton, Mass. Attaching heels to boots or shoes.....	376,049	Jan. 3	450	120	42	90
Smalley, Clarence C., Manitowoc, Wis. Attachment for endless-carrier slats.....	391,280	Oct. 16	1550	410	45	313
Smart, Walter, Jersey City, N. J. Ball-joint for chandeliers.....	393,126	Nov. 20	1384	361	45	877
Smead, Isaac D., Toledo, Ohio. Dry closet.....	387,263	Aug. 7	93	23	44	590
Smeatton, William M., Camden Town, county of Middlesex, England. Apparatus for casting traps.....	389,019	Sept. 4	311	82	44	1132
Smedley, Carter. (See Shoup, Daniel F., assignor.)						
Smiley, Henry, Boston, Mass. Bit-holder for bit-stocks.....	376,557	Jan. 17	1174	309	42	239
Smith, Aaron F., Lynn, Mass., assignor to Woodbury Heel Company, Nashua, N. H. Inner sole, stiffener, &c.....	376,419	Jan. 10	980	256	42	195
Smith, Aaron F., Lynn, Mass., assignor to Boot and Shoe Sole Laying Company, Portland, Me. Pad for sole-laying machines.....	388,377	Aug. 21	1843	490	44	939
Smith, Addison, New York, N. Y. Construction of buildings.....	378,627	Feb. 28	1916	507	42	894
Smith, Addison P. (See Smith, Frank R. and A. P.)						
Smith, A. O., Northfield, Vt. Wagon-spring.....	393,489	Nov. 27	1930	505	45	992
Smith, Albert B. (See Harris and Smith.)						
Smith, Albert D. (See Smith, Dwight L. and A. D.)						
Smith, Albert H., Memphis, Tenn. Scale-beam.....	381,057	Apr. 10	1205	323	43	242
Smith, Albert M., Westerly, R. I. Feed bucket.....	387,821	Aug. 14	934	242	44	759
Smith, Alfred C., New York, N. Y. Display-stand for non-magnetic watches.....	378,339	Feb. 21	1500	392	42	803
Smith, Alfred C., New York, N. Y. Device for exhibiting magnetic and non-magnetic watch-movements.....	393,402	Nov. 27	1789	473	45	966
Smith, Alfred E., Bronxville, N. Y. Air-heating furnace.....	376,682	Jan. 17	1378	363	42	277
Smith, Almira A., Hadley, Mass. Canopy attachment for chairs, &c.....	382,493	May 8	931	236	43	695
Smith, Alson A., assignor of one-half to F. W. Cole, Newton, Mass. Fire-alarm signal-box.....	378,983	Mar. 6	172	49	42	1000
Smith American Organ and Piano Company. (See Delano, Alphonso F., assignor.)						
Smith, Amroy B., Augusta, Ark. Boat-propelling mechanism.....	377,123	Jan. 31	2035	533	42	419
Smith, Amy I. (See Robinson and Smith.)						
Smith, Andrew C., E. E. Weir, F. R. Carson, and F. H. Weir, assignors to Lindgren Extinguisher Company, Kingman, Kans. Car-heater and lamp-extinguishing apparatus.....	379,995	Mar. 27	1697	453	42	1314
Smith, Andrew J., and L. W. Nuebling, assignors of one-half to M. H. Spades, Indianapolis, Ind. Fire-extinguisher.....	392,168	Oct. 30	2829	767	45	582
Smith & Anthony Stove Company. (See Allbee, Alexander C., assignor.)						
Smith, Archibald F., Philadelphia, Pa. Show-stand.....	381,437	Apr. 17	1712	458 459	43	351
Smith, Arthur G., Richwoods, Ill. Rowing apparatus.....	387,743	Aug. 14	828	214	44	737
Smith, Augustus. (See Myers and Smith.)						
Smith, Beggs & Ranken Machine Company. (See Beggs, John S., assignor.)						
Smith, Benjamin C. (See Crowley, Thomas A., assignor.)						
Smith, Benjamin C. (See Swift, Benjamin, assignor.)						
Smith, Benjamin C., Brooklyn, assignor to F. Ades & Co., New York, N. Y. Needle-bath.....	382,011	May 1	191	49	43	549
Smith, Benjamin F., Somerville, Mass. Sand-trap.....	382,117	May 1	355	93	43	579
Smith, Benjamin F., Somerville, Mass. Tap or die stock.....	391,655	Oct. 23	2056	556	45	424
Smith, Benjamin J. (See Anderson and Smith.)						
Smith, Benjamin J. (See Smith, William A. and B. J.)						
Smith, Byron C., Auburn, N. Y. Trace-buckle.....	385,146	June 26	1962	502	43	1523



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Smith, C. Stoddard. (See Reed, John H., assignor.)						
Smith & Caldwell. (See Smith, George A., assignor.)						
Smith, Carl C., assignor of one-half to C. F. Bobenmayer, Hamilton, Ohio. Harness shaft-loop	386,093	July 10	1121	299	44	227
Smith, Charles, Rogers, Ark. Lantern-supporter	385,015	June 26	1763	456	43	1481
Smith, Charles F., Hutchinson, Kans. Corn harvester and husker	377,649	Feb. 7	451	115 116	42	580
Smith, Charles F., New Britain, Conn. Faucet	387,014	July 31	2502	657	41	518
Smith, Charles G., assignor of one-half to J. Selinger, Washington, D. C. Adjustable button	391,656	Oct. 23	2057	557	45	424
Smith, Charles H., et al. (See Pommy, Richard, assignor.)						
Smith, Charles M., Boston, Mass., assignor, by mesne assignments, to Steel Car Company, Denver, Colo. Railway-car. (Reissue)	10,955	Aug. 28	2448	660 661	44	1063
Smith, Charles S., Pocahontas, Idaho Ter. Locomotive-boiler	393,790	Dec. 4	80	22	45	1088
Smith, Christian N., Dayton, Ohio. Dust-collector	390,100	Sept. 25	1981	526	44	1476
Smith, Christian N., Dayton, Ohio. Flour-bolt	391,281	Oct. 16	1551	411	45	313
Smith & Co., S. A. (See Holman, Strange A., assignor.)						
Smith Cycle Manufacturing Company. (See Smith, William E., assignor.)						
Smith, Daniel W., assignor of one-half to J. C. Addington, St. Louis, Mo. Feed-water heater	387,320	Aug. 7	185	48	44	606
Smith, Daniel W., assignor of one-half to J. C. Addington, St. Louis, Mo. Regulator or cut-off for generators	393,590	Nov. 27	2073	542	45	1024
Smith, David. (See Wilson, Malcolm, assignor.)						
Smith, David W., Wabash, Ind. Thill-coupling	386,222	July 17	1321	349	44	272
Smith, Deunison B., Jr. (See Barrows, Frederick B., assignor.)						
Smith, De Wane B., Utica, N. Y. Harrow attachment	393,344	Nov. 20	1700	449	45	941
Smith, De Wane B., Utica, N. Y. Wagon-bolster spring	393,345	Nov. 20	1701	449	45	941
Smith, Dwight L. (See Smith, Earl A., assignor.)						
Smith, Dwight L. (See Smith, Earl A. and D. L.)						
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Buckle	378,730	Feb. 28	2061	544	42	921
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Buckle	378,731	Feb. 28	2062	544	42	921
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Buckle	378,732	Feb. 28	2063	544	42	921
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Buckle	378,733	Feb. 28	2064	544	42	922
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Buckle	378,734	Feb. 28	2065	545	42	922
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Loop for suspender-buckles	382,494	May 8	933	236	43	696
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Snap-hook	382,495	May 8	933	237	43	696
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Buckle	378,731	May 29	2432	646	43	1011
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Buckle	385,578	July 3	369	96	44	74
Smith, Dwight L., assignor of one-half to E. A. Smith, Waterbury, Conn. Snap-hook	389,329	Sept. 11	808	206	44	1234
Smith, Dwight L. and A. D., Waterbury, Conn. Garment-clasp	380,951	Apr. 10	977	259	43	199
Smith, Earl A. (See Smith, Dwight L., assignor.)						
Smith, Earl A., Waterbury, Conn. Buckle	376,267	Jan. 10	768	204	42	157
Smith, Earl A., Waterbury, Conn. Buckle	376,921	Jan. 24	1742	458	42	355
Smith, Earl A., assignor of one-half to D. L. Smith, Waterbury, Conn. Buckle	384,936	June 19	1631	423	43	1447
Smith, Earl A. and D. L., Waterbury, Conn. Snap-hook	385,579	July 3	371	96	44	74
Smith, Edgar, Boston, Mass. Surface-gage	391,488	Oct. 23	1834	491	45	376
Smith, Edward, Battle Creek, Mich. Picket-fence machine	392,887	Nov. 13	1045	270	45	805
Smith, Edward and F., London, England. Glass ornamentation	392,935	Nov. 13	1110	287 288	45	816
Smith, Edward C., Brooklyn, N. Y. Rail-sawing machine	375,959	Jan. 3	315	84	42	65
Smith, Edward F., Corry, Pa. Rotary pump	395,085	Dec. 25	2099	544	45	1505
Smith, Edward L., administrator. (See Smith, Luther L.)						
Smith, Edwin D., Pittsburg, assignor of one-half to G. B. Bryan, Philadelphia, Pa. Combined scarf tip and fastener	391,657	Oct. 23	2058	557	45	424
Smith, Edwin F., Brooklyn, assignor to H. S. Smith Manufacturing Company, (limited), Geneva, N. Y. Cushioning device for steam-pistons	377,840	Feb. 14	765	195	42	655
Smith, Edwin T., Fremont, Neb. Folding bedstead	386,662	July 24	1958	517	44	407
Smith & Egge Manufacturing Company. (See Egge, Frederick, assignor.)						
Smith, Eli E., Steubenville, Ohio. Water-gate	377,089	Jan. 31	1987	520	42	410
Smith, Elias, assignor of one-half to F. Kimble, Peoria, Ill. Anatomical apparatus	388,593	Aug. 28	2137	574	44	1005
Smith, Elias D. (See Wimmer, Louis, assignor.)						
Smith, Elijah J. (See Malaier and Smith.)						
Smith, Elmer S., assignor of one-half to R. V. Pierce, Buffalo, N. Y. Steam-engine	380,825	Apr. 10	781	213 214	43	164
Smith, Elmer Z. (See Dimmick and Smith.)						
Smith, Elwood H., assignor to J. Smith & Sons, New Haven, Conn. Apparatus for removing star-fish from oyster-beds	379,422	Mar. 13	811	218	42	1126
Smith, Ernest E., et al. (See Hughes, Tyre C., assignor.)						
Smith, Eugene C., assignor of one-fifth to C. F. Frothingham, New York, N. Y. Lock for freight-cars	387,371	Aug. 7	264	67	44	623
Smith, Eugene C., assignor of one-fifth to C. F. Frothingham, New York, N. Y. Lock	387,372	Aug. 7	266	67	44	623
Smith, Eugene G., et al. (See Snyder, Elmer E., assignor.)						
Smith, Ezra B., Cincinnati, assignor of one-half to H. D. Emerson, College Hill, Ohio. Vegetable-spring	389,609	Sept. 18	1234	322 323	44	1319
Smith, Ezra W. (See Fasoldt, Ernest C., assignor.)						
Smith, Francis. (See Cumming, George, assignor.)						
Smith, Frank B., assignor of one-fourth to E. B. Loveland, North Springfield, Mo. Match-box	391,489	Oct. 23	1836	491	45	377
Smith, Frank E., Toledo, Iowa. Office-tickler	377,335	Jan. 31	2239	678	42	476
Smith, Frank G., et al., trustees. (See Cole, William R., assignor.)						
Smith, Frank L., assignor of one-half to W. S. Clark, Holton, Mich. Valve for steam-engines	382,564	May 8	1042	265	43	719
Smith, Frank R. and A. P., Houlton, Me. Lantern	394,025	Dec. 4	418	113	45	1151
Smith, Franklin A., Jr., Providence, R. I. Combined needle and cord	380,773	Apr. 10	708	196	43	150
Smith, Franklin M., Leaper, Ohio. Buoyant propeller	394,731	Dec. 18	1519	397 398	45	1385
Smith, Franklin M., Leaper, Ohio. Chain-propeller for vessels	394,732	Dec. 18	1520	398	45	1385
Smith, Fred D. (See Tippy and Smith.)						
Smith, Fred H., et al. (See Connett, Matthew F., assignor.)						
Smith, Frederick. (See Smith, Edward and F.)						
Smith, Frederick E. (See Dolan, Robert P., assignor.)						
Smith, Frederick E., South Boston, Mass. Feed-water regulator	387,457	Aug. 7	352	99	44	648
Smith, Frederick H., Baltimore, Md. Apparatus for upsetting eye-bars	387,822	Aug. 14	935	242	44	759
Smith, Frederick H., Baltimore, Md. Machine for upsetting eye-bars	387,823	Aug. 14	927	242 243	44	760
Smith, Frederick H., Baltimore, Md. Upsetting bridge-bars	387,821	Aug. 14	938	243	44	760

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & C.	Vol.	Page.
Smith, Frederick H., Baltimore, Md. Die for upsetting bridge-bars .....	389,115	Sept. 4	475	122	44	1161
Smith, Freeborn G., Brooklyn, N. Y. Piano .....	385,360	July 3	59	17	44	14
Smith, Friend W., Jr., Bridgeport, Conn., assignor to Columbia Rubber Company, of Massachusetts. Former for seamless dress-shields .....	392,642	Nov. 13	687	172	45	732
Smith, Friend W., Jr., and S. S. Williamson, assignors to Canfield Rubber Company, Bridgeport, Conn. Dress-shield former .....	385,645	July 3	471	122	44	92
Smith, Furmon S., and T. Kelly, Diamond Lake, Mich. Band-saw mill .....	381,726	April 24	2140	560	43	452
Smith, George, Brooklyn, N. Y. Fish-hook .....	387,015	July 31	2504	657	44	519
Smith, George, assignor of one-half to M. Brickner and A. Stettheimer, Rochester, N. Y. System and apparatus for heating and lighting cars .....	385,882	July 10	827	219	44	168
Smith, George A., Norristown, assignor to Smith & Caldwell, Philadelphia, Pa. Pill or lozenge machine .....	385,326	June 26	2239	574	43	1578
Smith, George A., Norristown, assignor to J. S. Thorn, Philadelphia, Pa. Machine for bending and stamping metal .....	390,264	Oct. 2	92	27	45	22
Smith, George B. (See Crane, Andrew J., assignor.) .....						
Smith, George C., New York, N. Y. Watch-case .....	387,321	Aug. 7	185	48	44	607
Smith, George F. (See Hotchkiss and Smith.) .....						
Smith, George F., and W. H. Warren, Covington, Ky. Vehicle-coupling .....	392,467	Nov. 6	433	109	45	676
Smith, George G., St. Albans, Vt. Pipe-wrench .....	382,391	May 8	775	197	43	606
Smith, George G., St. Albans, Vt. Fusible coupling for electric fire-alarm circuits .....	383,377	May 22	2926	591	43	966
Smith, George G., St. Albans, Vt. Lock .....	386,501	July 24	1721	455	44	362
Smith, George G., St. Albans, Vt. Seal for locks, &c. .....	386,663	July 24	1759	517	44	307
Smith, George W., et al. (See Woolverton, John E., assignor.) .....						
Smith, H. A. (See Sawyer, Charles H., assignor.) .....						
Smith, Henry. (See Church, Walter C., assignor.) .....						
Smith, Henry, Buffalo, N. Y. Key-hole guard for fire-alarm signal-boxes .....	380,357	Apr. 3	81	25	43	19
Smith, Henry A. (See Tuck and Smith.) .....						
Smith, Henry C., Brooklyn, N. Y. Device for increasing the speed of vessels .....	389,330	Sept. 11	869	206	44	1234
Smith, Henry C., Lawrence, Kans. Ladder .....	392,075	Oct. 30	2674	727	45	555
Smith, Henry C., Lawrence, Kans. Carpenter's trestle .....	394,026	Dec. 4	419	113	45	1151
Smith, Henry D., and F. M. Walker, Newark, Ohio. Traction-engine .....	379,996	Mar. 27	1699	453	42	1315
Smith, Henry H., Kalamazoo, assignor of one-half to M. M. Kruse, Portage, Mich. Two-wheeled vehicle .....	376,992	Jan. 21	1835	493	42	375
Smith, Henry L., Jericho Centre, Vt. Vehicle-wheel .....	384,398	June 12	831	218	43	1288
Smith, Henry M., Canton, Ohio. Plow-chisel .....	37-733	Aug. 7	268	68	44	623
Smith, Henry W., St. Louis, Mo. Signaling apparatus for cable street-railways .....	388,459	Aug. 28	1949	522	44	968
Smith, Herbert S., New York, N. Y. Sunshade for baby-carriages .....	379,734	Mar. 20	1281	342	42	1225
Smith, Herbert S., New York, N. Y. Carriage-spring .....	386,937	July 31	2293	639	44	496
Smith, Herschel M. (See Smith, Russell G., assignor.) .....						
Smith, Hill & Co. (See Hill, Thomas, assignor.) .....						
Smith, Hiram B., assignor of one-half to E. Holland, Atlanta, Ga. Head and back rest for railway-cars .....	380,460	Apr. 3	227	62	43	46
Smith, Hiram B., and G. B. Human, assignors of one-third to E. Holland, Atlanta, Ga. Self-closing vise .....	380,461	Apr. 3	228	62	43	47
Smith, Herace S., et al. (See Treat, Francis H., assignor.) .....						
Smith, Howard, Boston, Mass. Atomizer .....	394,888	Dec. 18	1790	464	45	1436
Smith Iron Company, G. W. & F. (See Holt, Thomas P., assignor.) .....						
Smith, Isaac. (See Gibbs, George, assignor.) .....						
Smith, Isaac, assignor of one-half to F. S. Beck, Brooklyn, N. Y. Button .....	381,438	Apr. 17	1713	459	43	351
Smith, Isaac, assignor of one-half to J. W. Atwood, Brooklyn, N. Y. Composition-faced button .....	375,186	Dec. 25	2275	584	45	1535
Smith, Israel C. (See Herrinton, Edward E., assignor.) .....						
Smith, Israel C., and E. E. Herrinton, Grand Rapids, Mich. Folding bed .....	380,223	Mar. 27	2021	540	42	1278
Smith, J. Clement, et al. (See Baldwin, William A., assignor.) .....						
Smith, J. Merritt, Greenwich, Conn. Lifting-jack .....	393,930	Dec. 4	299	78	45	1127
Smith, J. Newton, Metuchen, N. J. Device to aid in teaching arithmetic .....	389,415	Sept. 11	937	245	41	1258
Smith, Jacob L., Rochester, Pa. Button-hole attachment for sewing-machines .....	388,316	Aug. 21	1740	461	44	922
Smith, James, Cleveland, Ohio. Fire-proof material .....	381,439	Apr. 17	1711	459	43	351
Smith, James, and H. J. Boyd, London, Ontario, Canada. Gas-stove .....	381,732	Apr. 10	616	179	43	138
Smith, James E., assignor of one-half to W. I. Averill, New York, N. Y. Letter-box .....	384,596	June 12	1128	298	43	1312
Smith, James E., assignor of two-thirds to A. Moonelis and B. Lichtenstein, New York, N. Y. Cigar-hunching machine .....	392,076	Oct. 30	2675	728	45	555
Smith, James E., assignor of two-thirds to A. Moonelis and B. Lichtenstein, New York, N. Y. Making cigar-hunches .....	393,726	Nov. 27	2278	598	45	1043
Smith, James E., assignor of two-thirds to A. Moonelis and B. Lichtenstein, New York, N. Y. Blank for cigar-fillers .....	393,727	Nov. 27	2280	598	45	1064
Smith, James G. (See Spencer and Smith.) .....						
Smith, James H. (See Randall and Smith.) .....						
Smith, James H., Sulphur Bluff, Tex. Spark-arrester .....	391,658	Oct. 23	2059	557	45	424
Smith, James M. (See Smith, William S. and J. M.) .....						
Smith, James R., assignor to Standard Natural Gas Burner Company, Chicago, Ill. Gas-burning torch .....	383,154	May 22	1911	499	43	908
Smith, James T., New York, N. Y. Fastener for umbrellas or other articles .....	392,888	Nov. 13	1046	270	45	805
Smith, Jesse M. (See Mason and Smith.) .....						
Smith, John. (See Reynolds and Smith.) .....						
Smith, John A., York, Pa. Reed-organ .....	394,218	Dec. 11	710	189	45	111
Smith, John C., and L. B. Barker, Bellefontaine, Ohio. Steam-cooker .....	382,286	May 1	603	113	43	674
Smith, John D., et al. (See Jones, Edward C., assignor.) .....						
Smith, John G. S., assignor of one-half to J. A. Tignor, Rome, Ga. Banquet-holder .....	394,889	Dec. 18	1791	464	45	1137
Smith, John H., Paterson, N. J. Car wheel and axle .....	390,811	Oct. 9	854	227	45	175
Smith, John M., Spottsylvania, Va. Harness-buckle .....	379,613	Mar. 29	1103	293	42	1189
Smith, John P., Exeter, N. H. Drop-curtain .....	379,614	Mar. 29	1105	294	42	1189
Smith, John P., and W. C. Evans, Exeter, N. H. Nailing-machine .....	376,114	Jan. 19	543	145	42	115
Smith, John S., Jackson, Mich. Dust-collector .....	390,524	Oct. 2	460	119	45	92
Smith, John S., and S. Glasgow, county of Lanark, Scotland. Jacquard machine for looms .....	380,462	Apr. 3	229	63	43	47
Smith, John T., Rockfall, Conn. Revolver .....	376,922	Jan. 24	1713	458	42	355
Smith, John T., Rockfall, Conn. Revolver .....	394,027	Dec. 4	421	113	45	1172
Smith, John T., Bellevue, Mich. Wax-end needle .....	386,723	July 21	2037	536	44	422
Smith, John W. (See Cole, Albion P., assignor.) .....						
Smith, John Y., Doylestown, Pa. Exhaust apparatus for locomotives .....	378,340	Feb. 21	1501	392	42	804

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Smith, John Y., Doylestown, Pa. Blast or exhaust apparatus.....	386,502	July 24	1723	456	44	363
Smith, Jonas R., Newton, Kans. Salve.....	385,210	June 26	2054	.....	43	1543
Smith, Jonathan, Langley House, and P. W. Nicolle, Portland Place, Island of Jersey, Eng- land. Bleaching fiber.....	389,944	Sept. 25	1745	.....	41	1428
Smith, Joseph D., Rising City, Nebr. Combined square and protractor.....	388,734	Aug. 28	2339	630	44	1042
Smith, Joseph E. (See Holmes, William H., assignor.)						
Smith, Joseph E. C., <i>et al.</i> (See Smith, Peter J., assignor.)						
Smith, Joseph W., Mount Carmel, Pa. Railway-tie.....	376,214	Jan. 10	696	185	42	142
Smith, Joseph W., Newton, Mass. Suspenders.....	390,265	Oct. 2	95	27	45	22
Smith, Joshua T., Coffee County, Ga. Antidote.....	379,183	Mar. 6	450	.....	42	1052
Smith, Jud, assignor of one-half to E. E. Warren, Chemung, N. Y. Wagon-brake.....	382,912	May 15	1529	400	43	825
Smith, Lena, New York, N. Y. Bustle.....	382,059	May 1	274	72	43	564
Smith, Lenious D., and W. A. Olds, Helix, Oreg. Friction fire-escape.....	376,787	Jan. 24	1552	408	42	320
Smith, Leroy H., Lisle, N. Y. Breech-loading gun.....	381,088	Apr. 10	1905	333	43	242
Smith, Leroy H., Lisle, assignor to Ithaca Gun Co., Ithaca, N. Y. Breech-loading gun.....	383,325	May 22	2154	569	43	954
Smith, Levi, Paxton, Mass. Ice-cutting machine.....	389,416	Sept. 11	939	246	44	1250
Smith, Lewis A. (See Kruse and Smith.)						
Smith, Loring M., <i>et al.</i> (See Hill, Nelson H., assignor.)						
Smith, Louis E., <i>et al.</i> (See Schad, Barnhard, assignor.)						
Smith, Luther L., deceased; E. L. Smith, Ansonia, Conn., administrator. Electric deposit- ing-cell.....	393,526	Nov. 27	1986	519	45	1006
Smith, Lyman E., Milneague, Mass. Stuff-regulator for paper-machines.....	394,306	Dec. 11	852	296	45	1243
Smith, M. Holroyd, Halifax, county of York, England. Magnetic separator.....	384,645	June 19	1902	318	43	1366
Smith, M. Otto, Creighton, Mo. Wall-paper exhibitor.....	381,726	June 19	1326	346	43	1369
Smith Manufacturing Company, H. S. (See Smith, Edwin F., assignor.)						
Smith, Marion, Durlam, Kans. Machine for laying railway-tracks.....	383,613	July 24	1884	498	44	394
Smith, Mark A. (See Ridgely, Charles T., assignor.)						
Smith, Melvin L., Batavia, N. Y. Spoke-socket.....	388,735	Aug. 28	2340	630	44	1043
Smith, Michael H., Halifax, county of York, England. Magnetic separator.....	381,918	June 5	109	32	43	1141
Smith, Michael H., Halifax, county of York, England. Electric tramway.....	394,021	Dec. 18	1340	350 351	45	1348
Smith Middlings Purifier Company, George T. (See Eldred, Zenas C., assignor.)						
Smith, Minard M., New York, N. Y. Die-holder and straightening device for wire-nail machines.....	379,735	Mar. 20	1282	342	42	1225
Smith, Myers & Schmier. (See Schmier and Smith, assignors.)						
Smith, Myers & Schmier. (See Smith, Samuel R., assignor.)						
Smith, N. C., <i>et al.</i> (See Runnals, Nathaniel B., assignor.)						
Smith, Nathan J. (See Wintle, John E., assignor.)						
Smith National Cycle Manufacturing Company. (See Smith, William E., assignor.)						
Smith, Nelson, Kearney, Nebr. Chair.....	389,331	Sept. 11	810	206	44	1234
Smith, Orren M., assignor to W. Grange, Philadelphia, Pa. Ferrule for umbrellas, canes, &c.....	383,378	May 22	9227	591	43	966
Smith, Peter, New York, N. Y. Fire-proof partition.....	377,175	Jan. 31	2098	533	42	433
Smith, Peter, New York, N. Y. Combined stop and regulating valve.....	393,180	Nov. 20	1457	380	45	892
Smith, Peter J., assignor to himself, J. E. C. Smith, Philadelphia, Pa., and W. B. Smith, Washington, D. C. Tool for packing stuffing-boxes.....	387,458	Aug. 7	383	100	44	618
Smith, Philester, Rochester, N. Y. Combined step-ladder and ironing-board.....	393,591	Nov. 27	2074	543	45	1025
Smith, Philip M., Parkersburg, W. Va. Steam-engine.....	393,037	Nov. 20	1271	329	45	855
Smith, Prince, Jr., and S. Ambler, Keighley, county of York, England. Stop-motion for twisting-frames, &c.....	388,509	Aug. 28	2016	542	44	981
Smith, Ralph J., Sunderland, county of Durham, England. Chain-wheel.....	388,317	Aug. 21	1741	464	44	922
Smith, Reuben F., Pleasant Hill, Ala. Gas-engine.....	377,962	Feb. 14	940	245	42	691
Smith, Richard, Boston, Mass. Mechanism for actuating guide-rolls.....	395,253	Dec. 25	2382	600 610	45	1555
Smith, Robert, and T. N. Nicholson, Embarrass, Wis. Stove for heating oil for setting wagon-tires.....	388,923	Sept. 4	174	46	44	1106
Smith, Robert C., Newbern, Tenn. Bee-hive.....	385,685	July 3	525	137	44	103
Smith, Robert D. O. (See Dodge and Smith.)						
Smith, Robert T., and D. F. Shipley, Westminster, Md. Portable fence.....	392,830	Nov. 13	970	249	45	788
Smith, Robert W. (See Arnold, Horace L., assignor.)						
Smith, Robert W., Toledo, Ohio. Apparatus for burning crude petroleum-oil.....	384,873	June 19	1552	404	43	1432
Smith, Robert W., Toledo, Ohio. Oil-cup for burning crude petroleum-oil.....	387,927	Aug. 14	1113	296	44	793
Smith, Roger H., Muir, Ky. Combined scaffold and elevator.....	388,924	Sept. 4	175	46	44	1106
Smith, Roswell T., Nashua, N. H. Automatic stitch-adjusting mechanism for embroider- ing-machines.....	377,410	Feb. 7	89	20	42	511
Smith, Roswell T., Nashua, N. H. Embroidering-machine.....	377,411	Feb. 7	97	20, 21	42	513
Smith, Roswell T., Nashua, N. H. Embroidering-machine.....	377,412	Feb. 7	102	21	42	514
Smith, Roswell T., assignor to himself, N. W. Goddard, Nashua, N. H., and G. H. Dun- ham, New York, N. Y. Embroidering-machine.....	377,413	Feb. 7	105	21	42	514
Smith, Roswell T., assignor to himself, N. W. Goddard, Nashua, N. H., and G. H. Dun- ham, New York, N. Y. Embroidering-machine.....	377,408	Feb. 7	60	16 17 18	42	507
Smith, Roswell T., assignor to himself, N. W. Goddard, Nashua, N. H., and G. H. Dun- ham, New York, N. Y. Embroidering-machine.....	377,409	Feb. 7	81	18, 19	42	509
Smith, Rufus, and H. H. Mansfield, Oakland, Cal. Fire-truck and extension-ladder.....	375,779	Jan. 3	80	24	42	20
Smith, Russell G., Watertown, Dak. Ter., assignor of one-half to H. M. Smith, Minneapolis, Minn. Store-pipe or flue cleaner.....	388,794	Aug. 28	2429	656	44	1059
Smith, S. Frederick. (See Bickford, John H., assignor.)						
Smith, S. Morgan, York, Pa. Turbine water-wheel.....	383,777	May 29	2848	750	43	1094
Smith, S. W., <i>et al.</i> (See Egan, Charles E., assignor.)						
Smith, Samuel. (See Gill, Butler, and Smith.)						
Smith, Samuel. (See Smith, John S. and S.)						
Smith, Samuel B., Salt Lake City, Utah Ter. Combined harrow, planter, and roller attach- ment for plows.....	391,204	Oct. 16	1439	385	45	293
Smith, Samuel C., Lowell, Mass. Nail-setting machine.....	392,372	Nov. 6	288	73, 74	45	649
Smith, Samuel J., Truckee, Cal. Washing-machine.....	393,931	Dec. 4	299	78	45	1127
Smith, Samuel R. (See Schmier and Smith.)						
Smith, Samuel R., assignor to Smith, Myers & Schmier, Cincinnati, Ohio. Saw-mill carriage.....	376,050	Jan. 3	451	120	42	90
Smith, Sanford C. (See Tag and Smith.)						
Smith, Sanford G., Providence, R. I. Slow-closing tank-valve.....	391,659	Oct. 23	2060	558	45	425
Smith, Shea. (See White, Samuel K., assignor.)						
Smith, Sidney, Cambridge, Mass. Check-valve.....	377,963	Feb. 14	942	246	42	691
Smith, Sidney, Cambridge, Mass. Oven.....	384,177	June 5	498	136	43	1217

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Smith, Sidney, Pine Bluff, Ark. Bicycle.....	202,913	May 15	1530	{ 400 401 }	43	825
Smith, Silas T. (See Thomas and Smith.)						
Smith, Sommers N., Philadelphia, Pa. Thrust-block.....	388,227	Aug. 21	1591	424	44	892
Smith & Sons, J. (See Smith, Elwood H., assignor.)						
Smith, Stephen N., Providence, R. I. Machine for setting lacing-hooks.....	392,831	Nov. 13	971	{ 249 250 }	45	789
Smith, Thomas H. (See Charboneau, Pascal B., assignor.)						
Smith, Thomas J. (See Snowden, Clarence, assignor.)						
Smith, Thomas J., assignor of one-half to G. Merrill, Jackson, Mich. Fence-machine.....	378,378	Feb. 21	1530	405	42	814
Smith, Thomas J., Omega, assignor of one-half to E. Herrick, Kimmund, Ill. Churn.....	382,739	May 15	1301	342	43	778
Smith, Thomas S., Waterford, N. Y. Machine for knitting knit fabrics.....	389,533	Sept. 11	1100	{ 291 292 }	44	1289
Smith, Thomas S., Waterford, N. Y. Alarm-signal for machines for sewing looped fabrics.....	389,534	Sept. 11	1102	292	44	1289
Smith, Thomas S., Washington, D. C., assignor to H. B. Ives and F. F. Andrews, New Haven, Conn. Sash-fastener. (Reissue.).....	10,950	July 31	2780	727	44	566
Smith, W. H., et al. (See Connett, Matthew F., assignor.)						
Smith, W. R., et al. (See Cragin, George P., assignor.)						
Smith, Walter F., Philadelphia, Pa. Underground conduit for electric wires.....	382,778	May 15	1351	{ 355 356 }	43	788
Smith, Walter J., Philadelphia, Pa. Wood-molding machine.....	376,268	Jan. 10	769	204	42	157
Smith, Walter J., Philadelphia, Pa. Wood-molding machine.....	376,269	Jan. 10	770	205	42	158
Smith, Warren G., Brooklyn, N. Y. Gem-setting.....	384,399	June 12	838	218	43	1288
Smith, Warren S., St. Johnsbury, Vt. Saw-setting machine.....	384,094	June 5	367	104	43	1191
Smith, Welding E., Monroeville, Ohio. Plowshare.....	389,257	Sept. 11	704	179	44	1214
Smith, William A., and I. A. Weston, Syracuse; said Smith assignor to said I. A. Weston, and H. D. Weston, Jamestown, N. Y. Wheel.....	380,358	Apr. 3	82	26	43	19
Smith, William. (See Irvine, Albert C., assignor.)						
Smith, William, assignor to J. Wilson, trustee, Toronto, Ontario, Canada. Door-mat.....	387,928	Aug. 14	1113	{ 296 297 }	44	794
Smith, William A., Pottawatomie, and B. J. Smith, Melvern, Kans. Rotary harrow.....	392,697	Nov. 13	766	194	45	748
Smith, William B., et al. (See Smith, Peter J., assignor.)						
Smith, William B., Lawtey, Fla. Marine distress messenger-ball.....	395,187	Dec. 25	2276	584	45	1536
Smith, William B., Lawtey, Fla. Flexible marine messenger-ball.....	395,188	Dec. 25	2278	584	45	1536
Smith, William B., assignor of one-half to M. Spalding, Chicago, Ill. Hydrocarbon-furnace.....	378,852	Feb. 28	2260	601	42	959
Smith, William C. (See Brice and Smith.)						
Smith, William D., Marion, Ill. Wagon-step.....	389,332	Sept. 11	811	207	44	1234
Smith, William E., Washington, D. C., assignor to Smith National Cycle Manufacturing Company, of Colorado. Pedal for bicycles.....	385,074	June 26	1862	476	43	1503
Smith, William E., Washington, D. C., assignor to Smith Cycle Manufacturing Company, of Colorado. Tandem bicycle.....	391,490	Oct. 23	1837	{ 491 492 }	45	377
Smith, William E., Washington, D. C., assignor to Smith National Cycle Manufacturing Company, of Colorado. Bicycle.....	392,973	Nov. 13	1168	{ 303 304 }	45	828
Smith, William E., assignor to B. Goodman Manufacturing Company, Bridgeport, Conn. Suspender-buckle.....	392,293	Nov. 6	167	44	45	625
Smith, William F. (See Culver and Smith.)						
Smith, William F. (See Werrek and Smith.)						
Smith, William H. (See Penrose, Nutting, and Smith.)						
Smith, William H., Tama City, Iowa. Signal-lantern.....	380,142	Mar. 27	1913	510	42	1356
Smith, William H., Chicago, Ill. Clutch for band-pulleys.....	380,952	Apr. 10	979	259	43	199
Smith, William H., Danbury, Conn. Lifter for cuspidors and the like.....	388,083	Aug. 21	1351	364	44	848
Smith, William H., Richwoods, Ill. Fabric-turfing implement.....	389,333	Sept. 11	812	207	44	1235
Smith, William R., Bandera, Tex., and A. L. Washburn, New York, N. Y.; said Washburn assignor to said Smith. Coin-controlled electrical weighing-scale.....	392,698	Nov. 13	767	194	45	748
Smith, William S. and J. M., Galt, Ontario, Canada. Reciprocating brick-machine.....	389,354	Sept. 11	813	{ 207 208 }	44	1235
Smith, William T., Birmingham, Ala. Fire-escape.....	384,292	June 12	675	180	43	1250
Smith, William T., Birmingham, Ala. Shell for high explosives.....	384,646	June 19	1203	318	43	1306
Smith, William T., Birmingham, Ala. Breach-loading ordnance.....	389,983	Sept. 25	1800	{ 477 478 }	44	1438
Smith, William T., Birmingham, Ala. Log-carriage for saw-mills.....	390,525	Oct. 2	461	119	45	73
Smith, William T., Philadelphia, Pa. Two-faced embossed chenille plush fabric.....	392,699	Nov. 13	769	195	45	749
Smith, William T., G. A. Ely, and T. A. Bryan, Baltimore, Md. Gaseous-fuel burner.....	389,350	Apr. 3	83	26	43	19
Smith, William W., Hartley, Pa. Tobacco-granulating machine.....	382,565	May 8	1044	266	43	719
Smith, William W., La Porte, Ind. Metallic wheel.....	392,234	Nov. 6	84	20	45	610
Smith, Winfield. (See Strout, Edward E., assignor.)						
Smith Woolen Machinery Company, James. (See Houser and Clarkson, assignors.)						
Smithisler, John A., Danville, Kans. Brake-shoe.....	390,914	Oct. 9	1002	262	45	262
Soreka, William J., Chicago, Ill. Chimney-top.....	395,010	Dec. 25	1995	514	45	1463
Smysor, Henry E., Philadelphia, Pa. Weighing apparatus for granular and powdered substances.....	376,683	Jan. 17	1379	363	42	277
Smyth, David M., assignor to Smyth Manufacturing Company, Hartford, Conn. Book-sewing machine.....	378,467	Feb. 28	1695	445	42	848
Smyth, David M., assignor to Smyth Manufacturing Company, Hartford, Conn. Book-sewing machine.....	378,984	Mar. 6	175	49	42	1000
Smyth, David M., assignor to Smyth Manufacturing Company, Hartford, Conn. Book-sewing machine.....	378,985	Mar. 6	177	50	42	1000
Smyth, David M., Northwood, N. H., and J. R. Reynolds, assignors to Smyth Manufacturing Company, Hartford, Conn. Needle for book-sewing machines.....	387,744	Aug. 11	829	214	44	737
Smyth Manufacturing Company. (See Reynolds, John R., assignor.)						
Smyth Manufacturing Company. (See Smyth, David M., assignor.)						
Smyth Manufacturing Company. (See Smyth and Reynolds, assignors.)						
Smyth, Samuel, Pittston, Pa. Farm-gate.....	380,143	Mar. 27	1914	511	42	1356
Smyth, Samuel, Pittston, Pa. Package for butter or similar material.....	385,075	June 26	1864	476	43	1503
Smyth, William H., Berkeley, assignor to King Morse Canning Company, San Francisco, Cal. Can-testing machine.....	394,664	Dec. 18	1413	368	45	1361
Smyth, William L., Van Wie's, N. Y. Ice-harvesting machine.....	391,205	Oct. 16	1440	{ 385 386 }	45	293
Snapp, James W., assignor of one-half to A. L. and W. D. Spears, Jasper, Tenn. Machine for taking and recording topographical measurements.....	385,827	July 10	735	{ 192 193 }	44	151
Snively, B. Frank. (See Snively, George H. and B. F.)						
Snively, George H., Wrightsville, and B. F. Snively, Harrisburg, Pa. Air-mattress.....	379,827	Mar. 20	1432	380	42	1254
Snedden, Cora S. Braddock, Pa. Tidy-fastener.....	384,293	June 12	676	181	43	1259

## Alphabetical list of patentees—Continued.

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Snedden, William T., Wyandotte, Kans. Operating mechanism for station-indicators .....	391,653	Oct. 23	2073	{ 555 556 }	{ 45 }	423
Snedeker, Edgar W., Jamesburg, N. J. Combined mortising, tenoning, and planing machine, and turning-lathe .....	380,953	Apr. 10	980	260	43	200
Snedeker, Edgar W., Jamesburg, N. J. Wood-working machine .....	382,330	May 8	675	171	43	647
Snediger, Edward B., Maynard, Iowa. Ink-bottle .....	378,022	Feb. 14	1023	267	42	707
Snediker, David L., <i>et al.</i> (See McCollum, Franklin D., assignor.) .....						
Snediker, David L., Emporia, Kans. Fumigator .....	392,235	Nov. 6	85	20	45	610
Snediker, David L., J. R. Graham, Emporia, F. D. McCollum, Florence, Kans., and I. F. Snediker, Independence, Mo. Head-rest .....	391,206	Oct. 16	1142	386	45	294
Snediker, Isaiah F. (See Snediker, Graham, McCollum, and Snediker.) .....						
Snediker, Isaiah F., <i>et al.</i> (See McCollum, Franklin D., assignor.) .....						
Snediker, James F. (See Love and Snediker.) .....						
Snee, William, Pittsburg, Pa. Metal-punch .....	378,341	Feb. 21	1504	393	42	804
Sneed, James A., Marysville, Cal. Two-wheeled vehicle .....	387,322	Aug. 7	187	49	44	607
Snelgrove, William, North Dulwich, county of Surrey, assignor to J. Hinks & Son, (limited.), Birmingham, England. Extinguisher mechanism for lamps .....	386,038	July 10	1033	{ 274 275 }	{ 44 }	211
Snell, Adolphus G. (See Gates and Snell.) .....						
Snell, Adolphus G., New Haven, Conn. Carriage-entain fastener .....	393,592	Nov. 27	2075	543	45	1025
Suellling, John H., Pern, N. J. Steering apparatus for vessels .....	382,838	May 15	1426	374	43	304
Snevely, James E., Chetopa, Kans. Rotary engine .....	381,287	Apr. 17	1487	401	43	305
Snider, J. M. (See Snider, Wilson, assignor.) .....						
Snider, Wilson, assignor of one-half to J. M. Snider, Marble Hill, Mo. Adding-machine .....	394,219	Dec. 11	714	190	45	1216
Snidow, John M., Big Stony Creek, Va., assignor of one-third to J. W. Brown, Mercer County, W. Va. Drying attachment for tobacco-barns .....	383,778	May 29	2850	750	43	1094
Snitjer, Drikus, and M. Kuehn, St. Louis, Mo., assignors to Singer Manufacturing Company of New Jersey. Sewing-machine shuttle .....	377,052	Jan. 31	1924	506	42	398
Snitzel, Philip, Harmony, Pa. Rivet-extractor .....	380,703	Apr. 10	599	165	43	129
Snoddy, James T. (See Spaet, Berry, and Snoddy.) .....						
Snodgrass, Albert K., Ellensburg, Oreg. Side-hill plow .....	383,997	June 5	232	68	43	1166
Snodgrass, James. (See Craig, Neilson, and Snodgrass.) .....						
Snow, Arthur, Chambersburg, assignor of one-half to J. S. Mayer, White Hill, N. J. Pottery-kilu .....	394,022	Dec. 18	1343	351	45	1348
Snow, Fred W. (See Redding, William A., assignor.) .....						
Snow, Fred W., Ramapo, N. Y. Switch-stand .....	375,900	Jan. 3	229	62	42	48
Snow, George B., Buffalo, N. Y. Regulating valve for gas-burners .....	382,566	May 8	1046	266	43	719
Snow, George B., Buffalo, N. Y. Steam bell-ringer .....	384,095	June 5	369	104	43	1192
Snow, George B., Buffalo, N. Y. Steam bell-ringer .....	385,580	July 3	372	96	44	74
Snow, George B., Buffalo, N. Y. Steam bell-ringer .....	388,736	Aug. 28	2340	631	44	1043
Snow, Gilbert B. and J. T., Sugar Grove, Ill. Corn-barvester .....	385,286	June 23	2177	{ 557 558 }	{ 43 }	1567
Snow, James, assignor to W. H. H. Peck and S. E. Snow, Cleveland, Ohio. Belt-fastener .....	394,412	Dec. 11	1006	264	45	1273
Snow, James T. (See Snow, Gilbert B. and J. T.) .....						
Snow, John R. (See Crawford, William H., assignor.) .....						
Snow, Levi B., and J. Howard; said Howard assignor to W. Rardon, Wichita, Kans. Composition of matter for tanning hides .....	383,379	May 22	2228	.....	43	967
Snow, Levi T., New Haven, Conn. Breech-loading ordnance .....	387,016	July 31	2505	658	44	519
Snow, Sarah E., <i>et al.</i> (See Snow, James, assignor.) .....						
Snow, William, Waverly, Ill. Shaft-lug .....	392,373	Nov. 6	295	74	45	651
Snowden, Clarence, Cincinnati, assignor of one-half to T. J. Smith, Covington, Ohio. Umbrella attachment for bicycles .....	380,059	Mar. 27	1794	479	42	1332
Snyder, Abraham B., Louisville, Ohio. Automatic railway-signal .....	389,258	Sept. 11	704	179	44	1214
Snyder, Benson S. (See Fuller, William F., assignor.) .....						
Snyder, Charles L., assignor of one-half to I. M. Ridge, Kansas City, Mo. Gripper actuated by hydraulic pressure for cable-railway cars .....	380,224	Mar. 27	2022	511	42	1378
Snyder, Charles L., assignor of one-half to I. M. Ridge, Kansas City, Mo. Gripper for cable-railway cars .....	393,181	Nov. 20	1457	381	45	892
Snyder, Chastain M., Mount Pleasant, Iowa. Ventilating-grate for open air kilns .....	385,581	July 3	373	97	44	74
Snyder, Daniel B. (See Reed, John J., assignor.) .....						
Snyder, Elmer E., assignor of part to B. J. McGraun, C. V. Rote, and E. G. Smith, Lancaster, Pa. Brake .....	390,316	Oct. 2	159	44	45	35
Snyder, Frederick, Lancaster, Pa. Checkrein-holder .....	382,392	May 8	776	197	43	666
Snyder, Frederick, Lancaster, Pa. Elevating plumbing-base .....	393,403	Nov. 27	1791	473	45	966
Snyder, George K., and C. P. Fisher, Clay Centre, Kans. Sash-holder .....	386,938	July 31	2395	629	44	497
Snyder, Henry, Frankfort, N. Y. Street-sweeping machine .....	380,534	Apr. 3	341	97, 98	43	70
Snyder, Lambert, Midland Park, N. J. Churn .....	391,924	Oct. 30	2451	662	45	512
Snyder, Lewis P., and G. Waigle, Linden, Mich. Tea-kettle .....	377,124	Jan. 31	2037	533	42	420
Snyder, Martin, and A. Roht, assignors to themselves and C. M. Slack, New Brunswick, N. J. Method of and apparatus for cutting rubber soles .....	378,405	Feb. 21	1593	418	42	822
Snyder, Peter A., Jersey City, assignor of one-half to R. S. T. Cissel, Elizabeth, N. J. Ice-velocipede .....	394,409	Dec. 11	1003	263	45	1272
Snyder, Riley D., Avon, Ind. Garden-plow .....	381,654	Oct. 23	2055	556	45	424
Snyder, William A., Chicago, Ill. Putty for making ornamental moldings .....	387,017	July 31	2506	.....	44	519
Soar, William. (See Barber, Wiggins, and Soar.) .....						
Sobey, William, assignor to J. I. Case Plow Works, Racine, Wis. Wheel-cultivator .....	389,859	Sept. 18	1619	{ 427 428 }	{ 44 }	1395
Sobey, William, assignor to J. I. Case Plow Works, Racine, Wis. Cultivator .....	389,860	Sept. 18	1621	428	44	1395
Sobinski, Charles O. (See Peper and Sobinski.) .....						
Société Anonyme Compagnie Continentale Edison. (See Jehl, Francis, assignor.) .....						
Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis. (See Poirier and Rosenstiel, assignors.) .....						
Société Harmel Frères. (See Harmel, Albert, assignor.) .....						
Société Michel et Compagnie. (See Frager and Michel, assignors.) .....						
Söhner, Andreas, Berlin, Germany. Frame for carrying knapsacks, &c .....	385,429	July 3	143	38	44	29
Sohns, Albert, Clay Centre, Kans. Door-check .....	389,610	Sept. 18	1235	323	44	1320
Solano, Renaldo, Brooklyn, assignor to Howard & Morse, New York, and D. R. Morse, Brooklyn, N. Y. Automatic air-brake .....	376,970	Jan. 24	1805	475	42	367
Solano, Renaldo, Brooklyn, assignor to Howard & Morse, New York, and D. R. Morse, Brooklyn, N. Y. Automatic air-brake .....	378,628	Feb. 28	1916	{ 507 508 }	{ 42 }	895
Solano, Renaldo, assignor of two-thirds to J. W. Howard and D. R. Morse, Brooklyn, N. Y. Automatic air-brake .....	382,667	May 8	1200	311	43	749
Solano, Renaldo, assignor of two-thirds to J. W. Howard and D. R. Morse, Brooklyn, N. Y. Automatic air-brake .....	387,018	July 31	2506	{ 658 659 }	{ 44 }	519
Solatiuow, Joseph, Paterson, N. J. Extension-step for railway-cars .....	387,374	Aug. 7	268	68	44	624



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. 55	Vol.	Page.
Soler, Francisco, Brooklyn, N. Y. Cigar-bunching machine .....	393,083	Nov. 20	1325	346	45	866
Soley, Frank, <i>et al.</i> (See Soley, William H., assignor.)						
Soley, William H., assignor of two-thirds to F. Soley and J. Wolstencroft, Philadelphia, Pa. Thermotic circuit-closer .....	394,413	Dec. 11	1008	264	45	1273
Soli, Marcus J. S., Brookings County, Dak. Ter. Windmill .....	389,670	Sept. 18	1336	350	44	1338
Solid Ingot Company. (See Boulton, James B. D., assignor.)						
Solid Link Chain Manufacturing Company. (See Kinder, Julius, assignor.)						
Solliday, Edward R., Lambertville, N. J. Copying-book .....	390,526	Oct. 2	463	120	45	94
Sollmann, Anton. (See Klinik, Pinkowski, and Sollmann.)						
Solmans, Alden. (See Wells, Henry W., assignor.)						
Solon, Louis H., and J. McMahon, Mendota, Ill. Machine for weighing grain .....	385,532	July 3	301	77	44	61
Solter, John, Baltimore, Md. Can-heading machine .....	382,567	May 8	1047	266 267	43	719
Solter, John, assignor of one-half to G. L. Krebs, Baltimore, Md. Can-soldering machine .....	386,759	July 24	2088	549	44	430
Solter, John, assignor of one-half to G. L. Krebs, Baltimore, Md. Can-heading machine .....	386,760	July 24	2090	549	44	431
Solvay, Ernest, Brussels, Belgium. Apparatus for obtaining chlorine .....	393,672	Nov. 27	2209	579	45	1051
Solvay, Ernest, Brussels, Belgium, assignor to Solvay Process Company, Syracuse, N. Y. Apparatus for roasting sodium bicarbonates .....	386,664	July 24	1960	517	44	408
Solvay, Ernest, Brussels, Belgium, assignor to Solvay Process Company, Syracuse, N. Y. Limekiln .....	389,665	July 24	1962	518	44	408
Solvay Process Company. (See Solvay, Ernest, assignor.)						
Solverson, Henry M. (See Kellermann and Solverson.)						
Somers, D. M., <i>et al.</i> (See Atkinson, William H., assignor.)						
Somers, E. E., <i>et al.</i> (See Atkinson, William H., assignor.)						
Somers, G. A., <i>et al.</i> (See Atkinson, William H., assignor.)						
Somers, J. L., <i>et al.</i> (See Atkinson, William H., assignor.)						
Somes, Frank S., Lawrence, assignor to D. M. Holman, Boston, Mass. Bearing-lubricator .....	386,274	July 17	1398	368	44	286
Somes, James F. (See Beach, George A., assignor.)						
Sommer, Adolph, Berkeley, Cal. Making neutral compounds of chloride of sulphur .....	389,020	Sept. 4	312		44	1132
Sommer, Adolph, Berkeley, Cal. Compound of tallow and chloride of sulphur .....	389,021	Sept. 4	313		44	1132
Sommerfeld, Heinrich, Canton, assignor of one-half to A. Brown, McPherson, Kans. Car-coupling .....	387,323	Aug. 7	188	49	44	607
Sonnenschein, Adolf, assignor to himself and M. Schulhof, New York, N. Y. Fan attachment for children's carriages .....	376,684	Jan. 17	1380	363	42	278
Soot, Halidon R., <i>et al.</i> (See Bentley, Solomon P., assignor.)						
Sooy, Ephraim C., Kansas City, Mo. Baling-press .....	384,294	June 12	677	181	43	1259
Sooy, Ephraim C., Kansas City, Mo. Baling-press .....	386,360	July 17	1504	399	44	307
Sooy, Ephraim C., Kansas City, Mo. Baling-press .....	394,623	Dec. 18	1344	351 352	45	1349
Soper, Philo O., New York, assignor of one-half to J. Steel, Jr., Brooklyn, N. Y. Mouth-piece for bags .....	392,236	Nov. 6	86	21	45	611
Sørensen, Hans J., Chicago, Ill. Tobacco-pipe .....	388,084	Aug. 21	1352	365	44	848
Sorensen, Nels, Chicago, Ill. Tank .....	383,194	May 22	1062	514	43	918
Sorge, Adolph, Jr. (See Corkhill, Henry R., Sr., assignor.)						
Sorrels, Richard P., Hartford, Ky. Cane-stripper .....	378,735	Feb. 28	2066	545	42	922
Souders, Hiram B., East Vincent, Pa. Butter-mold .....	394,028	Dec. 4	423	114	45	1152
Soule, William S., Cambridge, Mass. Dust-guard for car-axles .....	381,591	Apr. 24	1947	513	43	414
Soulen, Henry, assignor to W. Luitink & Sons Manufacturing Company, Milwaukee, Wis. Sliding-door track and banger .....	380,299	Mar. 27	2117	566 567	42	1397
South Boston Iron Works. (See Spiller, George E., assignor.)						
South, Philip T. (See Kienardt, John A., assignor.)						
Southard, Charles E., St. Louis, Mo. Steam-boiler furnace .....	386,275	July 17	1399	363	44	287
Southard, Wilber F., Charleston, Ark. Cotton-press attachment .....	379,828	Mar. 20	1433	370	42	1254
Souther, George, Boston, Mass. Hoop for barrels, pails, or tubs .....	379,997	Mar. 27	1700	454	42	1315
Southern Automate Electric Shock Machine Company. (See Durieux, Charles, assignor.)						
Southgate, Frederick, Paris, France. Machine for forming seamless rubber goods .....	375,778	Jan. 3	79	23, 24	42	19
Southwick Foundry and Machine Company. (See Good, William E., assignor.)						
Southwick, Charles A., Peabody, Mass. Water-feeder .....	384,874	June 19	1354	404	43	1432
Sovereign, Frederick J., assignor to Rockford Can Company, Rockford, Ill. Jacketed can .....	386,439	July 17	1630	429	44	337
Soward, John B. (See Freeman and Soward.)						
Spades, Michael H. (See Smith and Nuebling, assignors.)						
Spaet, Joseph F. A., W. F. Berry, and J. T. Snoddy, Mount Pleasant, Iowa. Folding chair .....	383,255	May 22	2057	540	43	936
Spafford, Mark A., Rock Falls, assignor to Keystone Manufacturing Company, Sterling, Ill. Corn-planter .....	380,298	Mar. 27	2115	566	42	1397
Spahn, Herman, <i>et al.</i> (See Tachon, Claude, assignor.)						
Spalding & Brothers, A. G. (See Barnard, George, assignor.)						
Spalding, Charles D., Rice Lake, Wis. Wheelbarrow .....	385,381	July 3	60	17	44	14
Spalding, John L., Aitkin, Minn. Blacking-brush .....	391,491	Oct. 23	1841	492	45	378
Spalding, Merrill. (See Smith, William B., assignor.)						
Spangle, Jacob D. (See Heverly, James M., assignor.)						
Spannuth, Franz, Berlin, Germany. Runner for umbrellas or parasols .....	379,736	Mar. 20	1283	342	42	1225
Sparger, William A., Bristol, Tenn. Reducing or drawing out steel ingots .....	392,468	Nov. 6	434		45	676
Sparks, William A., assignor to Stein Manufacturing Company, Rochester, N. Y. Fastener for coffins .....	380,704	Apr. 10	600	165	43	129
Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Master-key lock .....	390,527	Oct. 2	464	120 121 122	45	94
Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Lock .....	390,915	Oct. 9	1003	263	45	203
Sparrow, Benjamin F., Boston, Mass. Screw-propeller .....	394,414	Dec. 11	1009	264	45	1273
Sparrow, Frank M., Mattapoisett, Mass. Electric valve-operating device .....	394,220	Dec. 11	716	191	45	1216
Sparrow, Frank M., Mattapoisett, Mass. Thermo-electric valve-controller .....	394,307	Dec. 11	853	226	45	1244
Sparrow, Joseph, Atchison County, Kans. Vehicle-wheel scraper .....	388,378	Aug. 21	1814	490	41	940
Spaulding, Albert M., Flowerfield, Mich., and H. L. Case, Bristol Centre, N. Y. Wrench .....	390,408	Oct. 2	297	78	45	63
Spaulding, Charles, Malden, Mass. Dividing mechanism for gear-cutting machines .....	376,833	Jan. 24	1623	424	42	332
Spaulding, Elijah F., Oil City, assignor of one-third to J. K. Fallock, Erie, Pa. Valve and valve-gear .....	385,533	July 3	302	77	44	61
Spaulding, Frank M., Kalamazoo, Mich. Photographic shutter .....	385,433	July 3	227	58	44	45
Spaulding, George H., Chicago, Ill. Mowing-machine .....	389,023	Sept. 4	319	84	44	1133
Spaulding, George H., assignor to W. Deering, Chicago, Ill. Self-binding harvester .....	389,022	Sept. 4	314	82 83 84	44	1132
Spaulding, Mont, Orleans, Mich. Corn-shock binder .....	386,361	July 17	1507	399	44	308
Spaulding, William H. H., Peru, Ind. Adjustable-grate for stoves .....	376,758	Jan. 24	1492	393	42	309

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr't	Vol.	Page.
Spears, Phillip M. (See Anderson, Lee, assignor.)						
Spears, Milton J. (See Corsbie, J. H., assignor.)						
Speelman, M. R. (See Campbell, Robert, assignor.)						
Spear, Edwin H., <i>et al.</i> (See Teipel, Benjamin, assignor.)						
Spear, John G., West Winsted, Conn. Rod-joint	389,335	Sept. 11	816	208	44	1235
Spears, A. Lawrence, <i>et al.</i> (See Snapp, James W., assignor.)						
Spears, Emanuel, Lafayette, Ind. Spike-extractor	377,865	Feb. 14	795	203	42	661
Spears, John E., Holyoke, Mass. Sample-book	394,516	Dec. 11	1154	300	45	1299
Spears, William D., <i>et al.</i> (See Snapp, James W., assignor.)						
Speed, Francis M., assignor to Telpherage Electric Railway Company, San Francisco, Cal. Electric railway	380,060	Mar. 27	1795	480	42	1333
Speer, Henry, Chelsea, Mass. Window-screen	383,155	May 22	1912	500	43	908
Speer, James R., Pittsburg, Pa. Truss	390,143	Sept. 25	2036	542	44	1488
Speiz, George, Dutch Kills, N. Y. Preserving wood	387,375	Aug. 7	270		44	624
Spelman, William C., New York, N. Y. Metal-bar mat	377,580	Feb. 7	341	89	42	561
Spence, Archibald, Montreal, Quebec, Canada, assignor to National Hot Water Heater Company, Boston, Mass. Furnace for water-heaters	380,297	Mar. 27	2114	566	42	1397
Spence, Joseph, assignor to L. A. Spence, near New Lisbon, Ohio. Corn-husker	382,568	May 8	1050	268	43	720
Spence, Lydia A. (See Spence, Joseph, assignor.)						
Spence, William, Pemba Cottage, Adelaide Road, Sarbiton, and A. Pullan, 306 New Cross Road, county of Surrey, England. Registering attachment for type-writers	392,643	Nov. 13	688	173	45	733
Spencer, Charles C. (See Ribble and Spencer.)						
Spencer, Charles C., Cortland, N. Y. Two-wheeled vehicle	382,839	May 15	1427	375	43	804
Spencer, Charles F., assignor of one-half to H. F. Atkinson, Rochester, N. Y. Switch for street railways	382,275	May 1	581	147	43	620
Spencer, Charles P., Salem, Mass. Machine for bending haues, pipes, or rods	385,778	July 10	668	174	44	138
Spencer, Christopher M., Windsor, Conn. Safety-lock for magazine-guns	386,614	July 24	1888	499	44	394
Spencer, Hedges L. (See Brown, Joseph H., assignor.)						
Spencer, Hiram A., Valley Mills, Tex. Gate	381,592	Apr. 21	1948	513 511	43	414
Spencer, Horace. (See Spencer, Wilber W. and H.)						
Spencer, J. K., <i>et al.</i> (See Marshall, Eugene E., assignor.)						
Spencer, James C., Rochester, and J. G. Smith, Jamestown, N. Y. Combined rule, square, bevel, calipers, dividers, &c	380,360	Apr. 3	86	27	43	19
Spencer, James S., <i>et al.</i> (See Lore, George W., assignor.)						
Spencer, Joseph E., and J. C. Sanders, Level, Md. Combination-padlock	378,736	Feb. 28	2067	545	42	922
Spencer, Lewis W., Hoosick Falls, and F. P. Jaquith, Hoosick, N. Y. Electric-arc lamp	378,738	Feb. 28	2140	574	44	1005
Spencer, Robert, Chicago, Ill. Check-punching device	382,085	Aug. 21	1352	365	44	848
Spencer, Thomas, Westbrook, Conn. System of electric distribution	378,737	Feb. 28	2069	545 546	42	922
Spencer, Thomas, Westbrook, Conn. System of electric distribution	378,738	Feb. 28	2071	546	42	923
Spencer, Wilber W. and H., Piqua, Ohio. Bicycle	386,168	July 17	1296	398	44	255
Spencer, William D., Middletown, Conn. Depth-gage	379,423	Mar. 13	812	218	42	1126
Spengel, Carl. (See Schmidt and Spengel.)						
Spengler, Franz, Berlin, Germany. Latch-bolt	390,409	Oct. 2	298	78	45	63
Spennelberg, George J., assignor of one-half to E. W. Burge and Z. T. Webster, Worthville, Ky. Shaft-holder	379,547	Mar. 13	996	267	42	1162
Spenny, Adam A. (See Livingston and Spenny.)						
Spierbeck, James O., assignor of one-half to E. H. Crandall, Oswego Falls, N. Y. Tire-heater	383,195	May 22	1963	514	43	918
Sperry, Henry T. (See Shipley, Sperry, and Hyde.)						
Sperry, Henry T., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button	377,581	Feb. 7	342	88	42	561
Sperry, Simon W., <i>et al.</i> (See Jewell, William M., assignor.) (Reissue.)						
Spicer, Andrew J., Portland, Oreg. Store-pipe and collar holder	389,984	Sept. 25	1806	478	44	1440
Spicer, Andrew J., assignor to himself, W. J. Matchett, and E. A. King, Portland, Oreg. Thill-coupling	386,276	July 17	1400	369	44	287
Spicer, Andrew J., assignor to himself and J. E. Haseltine, Portland, Oreg. Wheel-fastening device for car-axes	387,439	Aug. 7	385	100	44	649
Spicer, Vibe, Pittsburg, Pa. Latch	394,140	Dec. 4	531	159	45	1184
Spicer, William M., assignor of one-half to W. Bruce, Wellsville, N. Y. Thill-coupling	387,460	Aug. 7	346	100	44	649
Spicher, Daniel L., Wabash, Ind. Feed-trough	378,942	Mar. 6	115	33	42	989
Spiegel, William G., assignor of one-half to S. H. Carney, New York, N. Y. Marine signal	385,016	June 26	1761	456	43	1484
Spiegle, John M. (See Shaw and Spiegle.)						
Spiel, Adolf, Berlin, Germany. Petroleum-engine	377,866	Feb. 14	795	203 204 361 362	42	661
Spiel, Adolf, Berlin, Germany. Petroleum-engine	393,127	Nov. 20	1325		45	878
Spielberger, Charles J. (See Marble, William S., assignor.)						
Spielman, William, assignor to S. J. Nannburg, Newark, N. J. Railway-switch	391,986	Oct. 30	2543	688	45	530
Spith, Benjamin, Doniphan, Neb. Hoppie	388,737	Aug. 28	2342	631	44	1043
Spiller, George E., assignor to South Boston Iron Works, Boston, Mass. Means for indicating the pressure in a gun when discharged	391,392	Oct. 16	1701	450	45	341
Spiller, Samuel B. (See Yates, William H., assignor.)						
Spink, John, and C. Gauzentes, Bradford, county of York, England. Incandescent-lamp socket	384,478	June 12	942	244	43	1308
Spinner, Andrew J., San Francisco, Cal., assignor, by mesne assignments, to Carbolic Smoke Ball Company, Chicago, Ill. Carbolic smoke-ball holder	394,029	Dec. 4	425	114	45	1152
Spiro, Charles, New York, N. Y. Type-writing machine	381,652	Apr. 24	2028	532	43	430
Spiro, Naphtali, Burdett Road, county of Middlesex, assignor of one-half to C. Ackland, London, England. Ventilated water-proof garment	386,727	July 24	2043	538	44	423
Spitler, Amos, Moscow, Idaho Ter. Fumigator	387,541	Aug. 7	525	136	44	673
Spitler, Cass W., and D. G. Pingle, Van Buren, Ohio. Harrow and pulverizer	389,985	Sept. 25	1807	479	44	1440
Spitzer, Sigmund, New York, N. Y., assignor to Vienna Wheat Starch Company of West Virginia. Plant for the manufacture of starch from grain	386,363	July 17	1509	400	44	308
Spivey, Thomas S., assignor to Victor Safe and Lock Company, Cincinnati, Ohio. Permutation-lock	390,528	Oct. 2	467	122	45	94
Splittdorf, Henry, assignor to Splittdorf Wire Company, New York, N. Y. Insulated wire	383,919	June 5	110	32	43	1142
Splittdorf Wire Company. (See Sibley, Clarence C., assignor.)						
Splittdorf Wire Company. (See Splittdorf, Henry, assignor.)						
Spoehr, Friedrich, Philadelphia, Pa. Springbed-bottom	382,496	May 8	935	237	43	696
Spofford, Charles, New York, N. Y. Machine for making chip dishes	289,417	Sept. 11	940	247	44	1259
Spolders, John W., and F. X. Vien, Brooklyn, N. Y. Safety-valve	392,469	Nov. 6	435	109	45	676
Sponsel, Charles W., Hartford, Conn., assignor to Overman Wheel Company, Boston, Mass. Bicycle	392,889	Nov. 13	1047	270	45	805

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Spooner, Clapp. (See Knipfer, Otto, assignor.)						
Spoore, Ransom R., Clifton Springs, N. Y. Fence-post	388,086	Aug. 21	1356	365	44	849
Spornhauer, Charles, Cold Water, Ohio. Ice-cream freezer	388,925	Sept. 4	176	47	44	1106
Spradlin, William H. H., South Fork, Mo. Churn	385,828	July 10	739	193	44	151
Spradlin, William H. H., South Fork, Mo. Plow and cultivator	389,259	Sept. 11	705	180	44	1214
Spradlin, William H. H., South Fork, Mo. Sorghum-furnace	390,713	Oct. 9	717	189	45	151
Sprague, Charles H., and W. J. Wiley, Danbury, Conn. Hat-sizing roll	383,988	June 5	233	68	43	1166
Sprague, Edwin L., Boston, and G. R. Peare, Lynn, Mass.; said Peare assignor to said Sprague. Work-holding horn for shoe-sewing machines	383,546	May 29	2509	662	43	1025
Sprague Electric Railway and Motor Company. (See Sprague, Frank J., assignor.)						
Sprague, Frank J., New York, N. Y. Electrical pumping apparatus	385,211	June 26	2054	527	43	1543
Sprague, Frank J., New York, N. Y. Gearing	387,745	Aug. 14	830	214	44	737
Sprague, Frank J., assignor to Sprague Electric Railway and Motor Company, New York, N. Y. Dynamo-electric machinery	380,144	Mar. 27	1915	511	42	1357
Sprague, Henry W., assignor of five-eighths to E. C. Dunning and R. F. Pettigrew, Sioux Falls, Dak. Ter. Car-coupling	393,084	Nov. 20	1329	347	45	866
Sprague, William H., Jamestown, N. Y. Revolver	380,361	Apr. 3	87	27	43	20
Spranger, Bruno F. (See Anshar and Spranger.)						
Spratt, Frank D. (See Kincaid, Henry L., assignor.)						
Spriggs, Thomas, Mitchell, Kans. Lock-binge	395,086	Dec. 25	2100	544	45	1506
Spring, Charles A., et al. (See Steel, Robert, assignor.)						
Spring, Henry T., et al. (See Steel, Robert, assignor.)						
Spring, Joseph, New Haven, Conn. Lasting-tool	379,035	Mar. 6	256	72	42	1014
Springer, Alfred, Cincinnati, Ohio, and W. Kent, Passaic, N. J. Weight and price indicating balance	383,499	May 29	2434	646	43	1011
Springer, Alfred, Cincinnati, Ohio, and W. Kent, Passaic, N. J. Automatic grain-meter	384,665	Dec. 18	1415	369	45	1362
Springer, Job, Augusta, Me. Lettering-block	377,090	Jan. 31	1988	520	42	410
Springer, John, Clinton, assignor of one-half to M. C. Moore, Prairie du Sac, Wis. Hot-air register	380,145	Mar. 27	1916	511	42	1357
Springfield Bicycle Manufacturing Company. (See Jackson, Josiah, assignor.)						
Springfield Engine and Thresher Company. (See Cadwgan, Thomas C., assignor.)						
Springfield Glue and Emery Wheel Company. (See Hyde, Elwin R., assignor.)						
Springfield Glue and Emery Wheel Company. (See Hyde and Valentine, assignors.)						
Springfield Manufacturing Company. (See Dixon, Robert W., assignor.)						
Springfield Wood Working Company. (See Kelley, William J., assignor.)						
Springman, John T., Jr. (See Burrows, John J., assignor.)						
Springmühl, Ferdinand, London, England, assignor to American Concentrated Must Company, San Francisco, Cal. Preserving grape must and skins	380,463	Apr. 3	231	-----	43	47
Springsteen, Nelson E., Royal Oak, Mich. Store-service apparatus	386,362	July 17	1508	399	44	308
Sprout, Robert. (See Hare and Sprout.)						
Sprout, Robert, Pittsburg, Pa. Shaft attachment for vehicles	393,791	Dec. 4	81	23	45	1088
Sprout, Robert, Pittsburg, Pa. Shaft attachment for vehicles	394,141	Dec. 4	592	159	45	1185
Sprout, Robert, Pittsburg, Pa. Shaft attachment for vehicles	394,142	Dec. 4	593	159	45	1185
Sprout Vehicle Manufacturing Company. (See Hare and Sprout, assignors.)						
Sproles, Christian B. (See Houseman and Sproles.)						
Spruce, James, and A. M. Comstock, Waterbury, Conn. Line-guide for fishing-rods	387,545	Aug. 7	526	136	44	674
Spurgin, John H., Carthage, Mo. Band-cutter and feeder for thrashing-machines	388,595	Aug. 28	2142	{ 574 575 576 }	44	1005
Square Hole Auger Company. (See Hughes and Lake, assignors.)						
Squier, George L., assignor to G. L. Squier Manufacturing Company, Evans, N. Y. Grain-scourer	379,337	Mar. 13	685	186	42	1101
Squier Manufacturing Company, George L. (See Squier, George L., assignor.)						
Squire, Frank E., Cleveland, Ohio. Fire-extinguisher for railway-cars	388,738	Aug. 28	2342	631	44	1043
Squire, George W., et al. (See Goettel, John, assignor.)						
Squires, Arthur C., New York, N. Y. Dress-shield former	391,432	Oct. 23	1756	470	45	360
St. Armand, Edmond. (See Drude and St. Armand.)						
St. Cyr, William B., and F. R. McDonald, Minneapolis, Minn. Safety-switch	381,034	Apr. 10	1110	297	43	224
St. James, Henry L., Marshall, Tex. Piston-packing	377,442	Feb. 7	144	32	42	522
St. John, Enos F., Highland Station, Mich. Spirit-level and inclinometer	377,870	Feb. 14	801	205	42	662
St. John, King O., Toledo, Ohio. Roll-paper-service machine	384,877	June 19	1558	405	43	1433
St. John, Roswell H., Cleveland, Ohio. Railway-crossing	388,929	Sept. 4	185	49	44	1108
St. John, William W., Brooklyn, N. Y. Cut-off valve	376,365	July 17	1511	400	44	309
St. Lawrence, Henry, Northampton, Mass. Power-hammer	379,340	Mar. 13	690	187	42	1102
St. Lawrence Manufacturing Company. (See Hartley, Sylvester F., assignor.)						
St. Lawrence Manufacturing Company. (See Norton, Fred. H., assignor.)						
St. Louis, John B., Minneapolis, Minn. Steam-feed for saw-mill carriages	376,169	Jan. 10	636	170	42	133
St. Louis, John B., Minneapolis, Minn. Automatic gang-trimmer	387,604	Aug. 7	624	162	44	692
St. Louis, John B., Minneapolis, Minn. Sprocket-belt	389,173	Sept. 4	570	144	44	1177
St. Mary, Joseph, assignor of one-half to P. St. Mary, San Francisco, Cal. Damper-regulator	377,785	Feb. 14	685	173	42	641
St. Mary, Peter. (See St. Mary, Joseph, assignor.)						
Staats, Abram S., and J. Illingworth, Newark, N. J. Curb-stop	394,733	Dec. 18	1520	398	45	1386
Stacks, Clarence E. (See Beauregard and Bidwell, assignors.)						
Stadler, Nicholas, Manitowoc, Wis. Scaffold and staging	382,245	May 1	536	137	43	612
Staebler, Gustav, Mügeln, near Oschatz, Saxony, Germany. Velocipede	394,890	Dec. 18	1792	465	45	1437
Stafford, George W., and S. D. Barrett, assignors to G. W. Stafford Manufacturing Company, Providence, R. I. Shedding mechanism for looms	388,318	Aug. 21	1741	{ 465 466 }	44	922
Stafford, George W., and S. D. Barrett, assignors to G. W. Stafford Manufacturing Company, Providence, R. I. Harness-depressing device for looms	388,319	Aug. 21	1744	466	44	923
Stafford, Henry B. (See Gilmore and Stafford.)						
Stafford Manufacturing Company, George W. (See Stafford and Barrett, assignors.)						
Stafford, Norman, assignor to Patten, Stafford & Myer, Canastota, N. Y. Cleaver-arm for the teeth of horse hay-rakes	381,593	Apr. 24	1950	514	43	415
Stafford, Thomas H., Concord, N. H. Lead-pencil sharpener	378,117	Feb. 21	1158	301	42	741
Stafford, Thomas H., Concord, N. H. Pencil-sharpener	390,410	Oct. 2	299	78	45	64
Stafford, William A., Providence, R. I. Door-plate	389,260	Sept. 11	706	180	44	1214
Stafrick, Rolf, Chicago, Ill. Combined door-plate and letter-box door	388,596	Aug. 28	2146	576	44	1006
Stagg, John L., Chicago, Ill., assignor to United States Rolling Stock Company. Gondola-car	375,780	Jan. 3	81	25	42	20
Stagg, Thomas H. (See Jacobs and Stagg.)						
Stagner, Lytle R., Marshall, Mo. Combined rake and fork	381,594	Apr. 24	1952	514	43	415
Stahl, Edward, Prescott, Ariz. Ter. Method of and device for fitting garments	376,558	Jan. 17	1176	309	42	240
Stair, Edmund, Harrisonville, Mo. Brick-kiln	375,838	Jan. 3	153	43	42	34

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Stake, Job, Halifax, county of York, England. Device for lowering the fallers in gill-boxes, &c.	388,739	Aug. 28	2344	631	44	1044
Staley, Frank C. (See Phillips and Staley.)						
Stalker, Ezra, Westfield, Ind. Weather-strip	389,418	Sept. 11	941	247	44	1259
Stalnecke, Alfred, New York, N. Y. Machine for making pendants for watches	383,326	May 22	2156	569	43	954
Stambaugh, David F., assignor of one-half to J. T. Birch, St. Louis, Mo. Wire-coiling machine	376,685	Jan. 17	1381	{ 363 364 }	{ 42 42 }	278
Stamp, Elmer E. (See Kline, Samuel L., assignor.)						
Stanbery, George A., Zanesville, Ohio. Tile-press	388,926	Sept. 4	178	47, 48	44	1106
Stanbon, Charles P., Lynn, Mass. Rounding-out and channel-flap-turning machine	375,960	Jan. 3	316	84, 85	42	65
Stanbridge, Samuel, Stamford Hill, county of Middlesex, England. Apparatus for delivering goods	392,139	Oct. 30	2727	{ 756 757 }	{ 45 45 }	577
Stanchfield, Abner J. (See Baker, Theodore J., assignor.)						
Standard Button Fastening Company. (See Mathison, Joseph, assignor.)						
Standard Car Axle Lubricator Company. (See Faas, Rudolph, assignor.)						
Standard Electric Company of Vermont. (See Higgins and James, assignors.)						
Standard Electric Company of Vermont. (See Whitney, Edwin R., assignor.)						
Standard Electric Time Company. (See Warner, Charles D., assignor.)						
Standard Electric Time Company. (See Warner and Bennett, assignors.)						
Standard Gas Machine and Portable Gas Lamp Company. (See Bennett, Orson W., assignor.)						
Standard Metal Tie and Construction Company. (See Shultzen, Henry, assignor.)						
Standard Natural Gas Burner Company. (See Smith, James R., assignor.)						
Standard Ventilator Manufacturing Company. (See Ekstrom, John P., assignor.)						
Standish, Fred. C. (See Anderson, Oliver, assignor.)						
Stanford, Arthur L., Waukegan, Ill. Lifting-jack	389,861	Sept. 18	1622	{ 428 429 }	{ 44 44 }	1396
Stanger, Jonathan P., et al. (See Mullica, John and B. F., assignors.)						
Stanley, Frank F., et al., trustees. (See Goddu, Louis, assignor.)						
Stanley, Frank P., Spencer, Iowa. Post-hole auger	386,901	July 31	2338	614	44	485
Stanley, James, assignor to E. N. F., and J. Crane, Newark, N. J. Bridle-bit die and making bridle-bits	382,276	May 1	583	{ 147 148 }	{ 43 43 }	621
Stanley, James Z., Springdale, Mich. Fence	381,858	Apr. 24	2344	608	43	489
Stanley, James Z., Springdale, Mich. Gate	381,859	Apr. 24	2346	{ 608 609 }	{ 43 43 }	490
Stanley, Madison G., and W. F. Jones, Kenton, Tenn. Weather-board holder and gage	390,041	Sept. 25	1888	498	44	1457
Stanley Manufacturing Company. (See Allen, Edward B., assignor.)						
Stanley Rule and Level Company. (See Clark, Henry M., assignor.)						
Stanley Rule and Level Company. (See Hall and Trout, assignors.)						
Stanley Rule and Level Company. (See Lycett, Frederick W., assignor.)						
Stanley Rule and Level Company. (See Mead, Charles L., assignor.)						
Stanley Rule and Level Company. (See Traut, Justus A., assignor.)						
Stanley, Thomas E., and C. D. Gulley, Fort Worth, Tex. Device for transplanting trees	388,154	Aug. 21	1495	398	44	873
Stanley, William. (See Kendall, A. Leslie, assignor.)						
Stanley, William, Jr., Great Barrington, Mass. Current-collector for electric machines	383,832	May 29	2936	776	43	1111
Stanley, William, Jr., Great Barrington, Mass., assignor to Westinghouse Electric Company, Pittsburg, Pa. Apparatus for electrical conversion and distribution	387,117	July 31	2644	696	44	545
Stanley, William, Jr., Great Barrington, Mass., assignor to Westinghouse Electric Company, Pittsburg, Pa. Operating alternate-current motors	392,470	Nov. 6	436	109	45	677
Stanley, William, Jr., Great Barrington, Mass., assignor to Westinghouse Electric Company, Pittsburg, Pa. Alternate-current electric motor	392,471	Nov. 6	438	110	45	677
Stanley, William, Jr., Great Barrington, Mass., assignor to Westinghouse Electric Company, Pittsburg, Pa. Regulation of electric motors	392,890	Nov. 13	1048	271	45	806
Stanley Works. (See Hart, William H., assignor.)						
Stanley Works. (See Hart and Corseaden, assignors.)						
Stanton, Walter, New York, N. Y. Mechanical bird	395,189	Dec. 25	2280	585	45	1536
Stanwood, Frank H., Chicago, Ill. Step or platform	382,331	May 8	678	172	43	648
Stanwood, Frank H., Chicago, Ill. Car-step	385,017	June 26	1765	456	43	1484
Stanwood, Frank H., Chicago, Ill. Platform or step	392,891	Nov. 13	1051	271	45	806
Stanwood, James B., and P. P. Lane, Cincinnati, Ohio. Saw-mill set-works	379,998	Mar. 27	1701	454	42	1315
Stanyoung, Harry, Brooklyn, N. Y. Safe-lock	376,215	Jan. 10	697	{ 185 186 }	{ 42 42 }	143
Staples, Elisha S. (See Arnold and Staples.)						
Staples, Elizabeth D., West New Brighton, and H. E. Ashcraft, Goshen, N. Y., assignors to E. D. Staples. Hospital transfer-bed	378,220	Feb. 21	1313	348	42	770
Stapleton, Patrick W., and M. L. Carmody, Chicago, Ill. Safety lock-bearing	389,116	Sept. 4	475	122	44	1161
Star Brass Manufacturing Company. (See Downs, Benjamin J., assignor.)						
Star Brass Manufacturing Company. (See Sherburne and Taber, assignors.)						
Star Drill Company. (See Norris, Albert, assignor.)						
Star Fence Machine Company. (See Connatt, Matthew F., Jr., assignor.)						
Star Manufacturing Company. (See Bridwell, James W., assignor.)						
Star Metallic Thread Company. (See Bean, Edwin E., assignor.)						
Starbuck, Herbert A. (See Thomson and Johnson, assignors.)						
Starbuck, Theodore. (See Brooks and Beal, assignors.)						
Stare, Elias A., J. H. Diers, and J. L. Bicket, Sibley, Ill. Hay-rack for stock-cars	392,644	Nov. 13	692	174	45	733
Stark, Andrew, Chicago, Ill. Harvesting-machine	385,779	July 10	669	175	44	138
Stark, Andrew, Chicago, Ill. Grain-harvester	387,569	Aug. 7	569	149	44	682
Stark, David, San Francisco, Cal. Feed-water heater	381,937	June 19	1632	424	43	1447
Stark, Franklin S., Beulah, Mo. Broom	394,410	Dec. 11	1004	263	45	1273
Stark, John. (See Almorth, Gustaf, assignor.)						
Stark, John, Waltham, Mass. Anti-friction adjustable bearing for lathe-spindles	388,927	Sept. 4	183	48	44	1108
Stark, Jonathan F., Leota, Ind. Combined harrow and pulverizer	385,382	July 3	60	18	44	14
Stark, Michael J., assignor to A. Heinz and G. J. Munschauer, Buffalo, N. Y. Sheet-metal folder	387,746	Aug. 14	832	215	44	738
Starke, Fred. C., Milwaukee, Wis. Sea-cock	376,270	Jan. 10	771	205	42	158
Starkenber, Felix, assignor of one-half to H. J. Delaney, Milwaukee, Wis. Wave-power motor	385,327	June 26	2242	{ 574 575 }	{ 43 43 }	1579
Starkey, David W., Appleton, Wis. Vise	381,178	Apr. 17	1334	356	43	276
Starks, Herbert L., Preston, Conn. Flower-stand	387,825	Aug. 14	940	243	44	760
Starks, Nils O., assignor to Fuller & Johnson Manufacturing Company, Madison, Wis. Check-row corn-planter	390,529	Oct. 2	469	{ 122 123 }	{ 45 45 }	95
Starley, William, Coventry, county of Warwick, England, assignor to A. H. Overman, Newton, Mass. Button	383,156	May 22	1913	500	43	908
Starnes, Winfield S., Chicago, Ill. Nut-lock	394,143	Dec. 4	594	160	45	1185
Starr, Charles H., Logansport, Ind. Draw-gear for railway-cars	382,840	May 15	1428	375	43	804

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Starr, Charles P. (See Billings, Richard M., assignor.)						
Starr, E. Eugene, assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Galvanic battery.....	385,147	June 26	1964	{ 502 503 131 132 }	{ 43 42 42 42 }	1524 592 592 592
Starr, Eben T., assignor to eight-fifteenths to M. Stone, New York, N. Y. Anchor.....	377,691	Feb. 7	513	{ 132 132 }	{ 42 42 }	592 592
Starr, Eben T., assignor to eight-fifteenths to M. Stone, New York, N. Y. Anchor.....	377,692	Feb. 7	515	{ 132 132 }	{ 42 42 }	592 592
Starr, Edward M. (See Morse, Frederick H., assignor.)						
Starr, Eli T., Philadelphia, Pa. Envelope for protecting grapes while maturing.....	383,327	May 22	2157	569	43	951
Starr, Eli T., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Hot-air syringe.....	382,012	May 1	1992	59	43	549
Starr, Frank A., Monticello, N. Y. Station-indicator.....	386,562	July 24	1824	481	44	380
Starr, Frederick W., Brooklyn, N. Y. Wagon-stake.....	388,928	Sept. 4	184	48	44	1108
Starr, George W., and R. M. Kinley, Grass Valley, Cal. Concentrator.....	391,341	Oct. 16	1625	430	45	327
Starr, William N., Ashland, Ohio. Pump.....	392,077	Oct. 30	2677	729	45	555
Stasch, Bertha, <i>et al.</i> (See Stasch, Emil R., assignor.)						
Stasch, Emil R., assignor to V. Haischer and B. Stasch, Corning, N. Y. Machine for bending sheet metal.....	377,336	Jan. 31	2340	678	42	477
Stasch, Emil R., assignor to V. Haischer and B. Stasch, Corning, N. Y. Machine for corrugating and edging sheet metal.....	382,277	May 1	585	{ 148 149 }	{ 43 43 }	621 621
Stanton, Gray. (See Bain, Robert E. M., assignor.)						
Staub, Alexander, Port Wayne, Ind. Stove-pipe thimble.....	385,212	June 26	2056	527	43	1543
Staub, Emil, Leipsic, Saxony, Germany, assignor to G. Thomas, Manchester, England. Balance apparatus for ascertaining counts or numbers of yarn.....	380,826	Apr. 10	783	214	43	164
Stauffer, Henri O., Ponts Martel, Nonfchâtel, Switzerland. Repeating-watch.....	383,256	May 22	2059	{ 540 541 }	{ 43 43 }	937 937
Steam Gauge and Lantern Company. (See Glazier, Elias C., assignor.)						
Steam Gauge and Lantern Company <i>et al.</i> (See Betts, Lewis F., assignor.)						
Steam Gauge and Lantern Company <i>et al.</i> (See Colony, Charles W., assignor.) (Reissne.)						
Steam Gauge and Lantern Company <i>et al.</i> (See Dietz, Frederick, assignor.)						
Stearns & Co., I. J. (See Hobson, Arthur E., assignor.)						
Stearns & Co., I. J. (See Hobson, Arthur E., assignor.) (Reissne.)						
Stearns, A. M. (See Parmenter, Pheba, assignor.)						
Stearns, Charles G., New York, N. Y. Dust-guard for journal-boxes.....	395,087	Dec. 25	2101	544	45	1506
Stearns, John F., Dexter, Me. Stove-polish.....	389,986	Sept. 25	1808	44	44	1440
Stearns, John N., New York, N. Y. Needle-loom.....	377,535	Feb. 7	280	71, 72	42	549
Stearns, John N., New York, N. Y. Needle-loom.....	377,536	Feb. 7	284	72	42	549
Stearns, Kent K. (See Bouton and Stearns.)						
Stearns, William M. (See Hewett, Charles E., assignor.)						
Stearns, William T., Gettysburg, assignor of one-third to R. H. Wood, Lebanon, Dak. Ter. Home.....	386,615	July 24	1889	499	44	395
Stearns, Emily A., Brooklyn, N. Y. Trap.....	381,288	Apr. 17	1488	401	43	306
Stebbins, Albert C., assignor to Pond Machine Tool Company, Worcester, Mass. Feeding appliance for radial drills.....	392,169	Oct. 30	2831	767	45	585
Stebbins, Albert C., assignor to Pond Machine Tool Company, Worcester, Mass. Boring-mill.....	392,170	Oct. 30	2833	768	45	585
Stebbins, Charles H., New York, N. Y. Distributing oil during storms at sea.....	387,324	Aug. 7	190	49	44	607
Stebbins, Lorenzo. (See Newhall, Cyrus, assignor.)						
Stecher, Max, assignor of one-half to C. Wiegmann, Philadelphia, Pa. Secondary battery.....	378,029	Feb. 28	1918	508	42	895
Stecher, Randolph, <i>et al.</i> (See Trebau, Frank, assignor.)						
Steck, Ernst F., Chicago, Ill. Fire-ladder truck.....	379,421	Mar. 13	813	219	42	1127
Steck, Ernst F., Chicago, Ill. Ladder-truck.....	379,495	Mar. 13	921	{ 248 249 }	{ 42 42 }	1147 1147
Steck, Ernst F., Chicago, Ill. Ladder for city fire-department service.....	380,733	Apr. 10	647	179	43	138
Stedman, Oscar F., Cuyahoga Falls, Ohio. Stem winding and setting watch.....	380,925	Mar. 27	2024	541	42	1379
Stedman, William H., Norwich, Conn. Surface and scratch gage.....	375,901	Jan. 3	230	63	42	49
Steel Car Company. (See Smith, Charles M., assignor.)						
Steel, James, Paterson, N. J. Conduit.....	381,653	Apr. 24	2033	{ 532 533 }	{ 43 43 }	431 431
Steel, James, Jr. (See Soper, Philo O., assignor.)						
Steel Key Chain Company. (See McKernan, Dennis D., assignor.)						
Steel, Robert, assignor of three-fourths to H. T. Spring, A. B. Swartz, and C. A. Spring, Philadelphia, Pa. Velocipede.....	376,051	Jan. 3	452	120	42	90
Steele, Albert H. (See Fifield, Levi W., assignor.)						
Steele, Elbert L., assignor to himself and W. H. Campbell, Nashua, N. H. Register for paper-box machines, &c.....	375,781	Jan. 3	82	25	42	20
Steele, Everard. (See Ongerth, Michael, assignor.)						
Steele, Frederick M., administrator. (See Wilkinson, Lewis.)						
Steele, George W., Syracuse, N. Y. Spoke-socket.....	390,144	Sept. 25	2036	542	44	1488
Steele, James, Guelph, Ontario, Canada. Spring-gear for vehicles.....	379,999	Mar. 27	1702	455	42	1316
Steele, James C., Statesville, N. C. Brick-truck.....	380,603	Apr. 3	448	126	43	91
Steele, James W., Topeka, Kans., assignor of one-half to A. McNally, Chicago, Ill. Danger-signal for railway-bridges.....	387,747	Aug. 14	834	215	44	738
Steele, James W., Topeka, Kans., assignor of one-half to A. McNally, Chicago, Ill. Railway-bridge danger-signal.....	387,748	Aug. 14	835	215	44	738
Steele, John A., Minneapolis, Minn. Tent.....	386,563	July 24	1826	482	44	380
Steele, John C., Vaughan, assignor of one-half to A. H. Dixon, Eglinton, Ontario, Canada. Road-planer.....	379,829	Mar. 20	1431	381	42	1254
Steele, Michael H., Kalamazoo, Mich. Smoke-consuming furnace.....	383,182	Nov. 20	1460	380	45	893
Steele, O. B. (See Reagan, Beverly, assignor.)						
Steele, Patterson, Fayette County, Ky. Gate.....	383,920	June 5	111	32, 33	43	1142
Steele, Ransom, assignor of one-half to A. M. Hyde, New Britain, Conn. Shutter-fastener.....	391,207	Oct. 16	1443	376	45	294
Steele, Wilbur F., Minneapolis, Minn. Car-heating apparatus.....	384,461	June 12	841	219	43	1289
Steele, Wilbur F., Steele, Dak. Ter. Hydrocarbon vaporizer and burner.....	387,929	Aug. 14	1114	297	44	794
Steen, C. H., and M. McDonald, Streator, Ill. Piston for engines.....	382,078	Oct. 30	2679	729	45	556
Steen, James, Simpson County, Miss. Ferry-boat.....	392,079	Oct. 30	2681	730	45	556
Steffa, James F., Rockvale, Ill. Velocipede.....	375,961	Jan. 3	319	85, 86	42	66
Steffens, Mathew J., Chicago, Ill. Photographic apparatus.....	394,221	Dec. 11	720	191	45	1217
Steiger, Andrew W. (See Hurdle and Steiger.)						
Steiger, Andrew W., assignor to Yost Writing Machine Company, New York, N. Y. Folding table.....	389,535	Sept. 11	1103	292	44	1290
Steiger, John J., Peoria, Ill. Traction-wheel.....	386,169	July 17	1227	328	44	256
Steigleder, Charles H., Northampton, Mass. Fork-guard.....	382,060	May 1	275	72	43	564
Stein, Emanuel, Philadelphia, Pa. Regenerative gas-lamp.....	385,383	July 3	62	18	44	14
Stein, Lewis, New York, N. Y. Stocking-supporter.....	395,011	Dec. 25	1996	515	45	1484



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.'s	Vol.	Page.
Stein Manufacturing Company. (See Corbett, James R., assignor.)						
Stein Manufacturing Company. (See Sparks, William A., assignor.)						
Stein, Nathan. (See Freedman, Hayman, assignor.)						
Stein, William, Camden, N. J. Shell-cutter.	389,024	Sept. 4	320	84	44	1133
Steinan, Charles. (See Steinau, Richard and C.)						
Steinan, Richard and C., Brunswick, Germany. Brick, &c.	379,338	Mar. 13	687	186	42	1102
Steinbarger, John A., <i>et al.</i> (See Mitcheamore, Charles H., assignor.)						
Steiner, Albert, Chicago, Ill. Glove-fastener.	380,604	Apr. 3	449	126	43	91
Steiner, Henry W., assignor of one-half to H. W. Merrill, Easton, Pa. Shutter-blower.	385,732	July 10	597	155	44	124
Steiner, Moses, Bluffton, Ohio. Windmill.	377,964	Feb. 14	944	246	42	692
Steiner, William R., Frederick, Md. Harvester.	377,091	Jan. 31	1989	520 521	42	411
Steingoetter, Philip. (See Poh, Benjamin W., assignor.)						
Steinle, Otto. (See Jürgens, Eduard, assignor.)						
Stellwagen, Edward J., Washington, D. C. Elevator.	382,841	May 15	1429	375 376	43	804
Stengel, Charles, Hamilton, Ohio. Caster.	388,460	Aug. 28	1951	523	44	968
Stenz, Henry. (See Rogers and Stenz.)						
Stephan, George W., Springfield, Ohio. Straw-stacker.	394,666	Dec. 18	1417	369 370	45	1362
Stephens, Daniel and W., Port Carbon, Pa. Shutter worker and fastener.	392,472	Nov. 6	440	110	45	677
Stephens, Edward, assignor to E. C. Stephens, Arlington, N. J. Tubular iron railing.	381,289	Apr. 17	1489	401	43	306
Stephens, Edward C. (See Stephens, Edward, assignor.)						
Stephens, Franklin, Vineland, N. J. Saw.	394,222	Dec. 11	732	192	45	1217
Stephens, James G., Sheridan, Ark. Motor for fans.	387,325	Aug. 7	191	49	44	608
Stephens, John H., <i>et al.</i> (See Earnest, Jacob T., assignor.)						
Stephens, John O. (See Bell, George W., assignor.)						
Stephens, John O. (See Thompson and Stephens.)						
Stephens, John R., Portland, Oreg. Button-hole opener.	383,021	May 15	1700	442	43	857
Stephens, Lawrence, assignor of two-thirds to A. L. Ryland, St. Louis, and C. D. Moody, Webster Groves, Mo. Shoe-nail.	377,503	Feb. 7	241	58	42	541
Stephens, R. B. (See Gladney, Robert D., assignor.)						
Stephens, William. (See Stephens, Daniel and W.)						
Stephenson, Edwin N., Waco, Tex. Mattress-stuffing machine.	376,399	Jan. 10	941	247	42	189
Stephenson, George, Windsor, Ontario, Canada. Stove-drum.	376,115	Jan. 10	546	146	42	116
Stephenson, John, New York, N. Y. Tram-car lamp-house.	378,469	Feb. 28	1698	446	42	849
Stephenson, John, New York, N. Y. Tram-car roof.	378,470	Feb. 28	1639	446	42	850
Stephenson, John, New York, N. Y. Tram-car sash-rail.	378,471	Feb. 28	1701	447	42	850
Stephenson, John, New York, N. Y. Tram-car-door hanging.	378,472	Feb. 28	1702	447	42	850
Stephenson, John, New York, N. Y. Tram-car window.	378,473	Feb. 28	1702	447 448	42	851
Stephenson, John, New York, N. Y. Tram-car-door hanger.	378,474	Feb. 28	1703	448	42	851
Stephenson, John, New York, N. Y. Tram-car-door operator.	378,475	Feb. 28	1704	448 449	42	851
Stephenson, John, New York, N. Y. Tram-car dash-cap.	378,476	Feb. 28	1705	449	42	852
Stephenson, John, New York, N. Y. Car-axle box.	378,477	Feb. 28	1706	449	42	852
Stephenson, John, New York, N. Y. Draw-head hook for tram-cars.	378,478	Feb. 28	1707	450	42	852
Stephenson, John, New York, N. Y. Draw-bar for tram-cars.	378,479	Feb. 28	1708	450	42	853
Stephenson, John, New York, N. Y. Aisle-car.	378,480	Feb. 28	1708	450 451	42	853
Stephenson, John, New York, N. Y. Horse-guard for tram-cars.	379,496	Mar. 13	927	249	42	1148
Stephenson, William, Morris, Manitoba, Canada. Stove.	376,454	Jan. 17	1037	271 272	42	213
Stepp, John P., Brooklyn, assignor to Haff & Walbridge, New York, N.Y. Cork-extractor.	378,907	Mar. 6	66	20	42	979
Sterling, Clarence. (See Blake and Sterling.)						
Sterling Company. (See Hubbell, Charles H., assignor.)						
Sterling, Mary C., Detroit, Mich. Toilet-rack.	386,939	July 31	2395	630	44	497
Stern, Aaron. (See Jeffery and Stern.)						
Stern, David. (See Gilles and Stern.)						
Stern, Henry, Shelbyville, Ky. Show-case.	381,961	May 1	87	22	43	531
Stern, Moses L. (See Cuff, Joseph E., assignor.)						
Stern, Wilhelm, Berlin, Germany. Regenerative gas-burner.	391,866	Oct. 30	2368	643	45	495
Sternbergh, James H. and P. H., Reading, Pa. Die for making nuts.	393,792	Dec. 4	82	23	45	10-9
Sternbergh, Philip H. (See Sternbergh, James H. and P. H.)						
Sterne, Louis, London, England. Pin and attachment for jewelry.	378,908	Mar. 6	66	20	42	979
Sterrett, Jacob S., Philadelphia, Pa. Car-brake.	382,013	May 1	193	50	43	549
Sterrett, William B. (See Sharp, Edward A., assignor.)						
Sterzinger, Erich. (See Von Stepski and Sterzinger.)						
Stetson, Clara T., administratrix. (See Bickford and Stetson.)						
Stetson, Hiram W., Black Brook, N. Y. Bedclothes-holder.	387,376	Aug. 7	270	68	44	624
Stetson, John A. (See McIntyre, James, assignor.)						
Stetson, Joseph B., Lincoln, Me. Tubular lantern.	384,546	June 12	1057	276	43	1329
Stetson, Warren I. (See Bickford and Stetson.)						
Stettheimer, Abraham, <i>et al.</i> (See Smith, George, assignor.)						
Stettiner Chamotte Fabrik Act'en-Gesellschaft, formerly Didier. (See Lentz, August, assignor.)						
Stevens, Abbott B. (See Stevens, Edward G. and A. B.)						
Stevens Arms and Tool Company, J. (See Stevens, Joshua, assignor.)						
Stevens, Arthur D., assignor of one-half to E. B. Dillingham, Minneapolis, Minn. Lighting cars by electricity.	376,116	Jan. 10	547	146	42	116
Stevens, Asher B., Brooklyn, N. Y. Umbrella support.	382,118	May 1	355	93	43	579
Stevens, Asher B., New Bridge, N. J., assignor, by mesne assignments, to Rocker Spring Company, Chicago, Ill. Spring attachment for rocking-chairs.	384,647	June 19	1205	318	43	1367
Stevens, Benjamin A., Toledo, Ohio. Sectional meat-block.	381,654	Apr. 24	2035	533	43	431
Stevens, Benjamin D., Burlington, Vt., assignor of one-half to B. H. Cheever, Lowell, Mass. Loom-temple.	390,714	Oct. 9	719	189	45	151
Stevens, Edward G. and A. B., Clinton, Mass., assignors to Ridgway Furnace and Stove Company, Nashua, N. H. Automatic regulator for furnaces and stoves.	388,087	Aug. 21	1357	366 367	44	819
Stevens, Edwin F., and J. Packard, Greene, Iowa. Draft-equalizer.	376,559	Jan. 17	1177	310	42	240
Stevens, Frederick M., Brooklyn, N. Y. Pattern for casting.	380,827	Apr. 10	785	214 215	43	164
Stevens, Frederick M., Brooklyn, N. Y. Hot-air and ventilating register.	386,223	July 17	1322	350	44	273
Stevens, George M., Cambridge, Mass. Fire-alarm signal-box.	379,339	Mar. 13	688	186 187	42	1102

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Stevens, George M., Cambridge, Mass. Electric fire-alarm apparatus .....	384,875	June 19	1556	404	43	1432
Stevens, George T., Auckland, New Zealand. Shoe-fastening .....	395,088	Dec. 25	2102	545	45	1506
Stevens, Henry A., Lako City, Minn. Ventilated boot or shoe .....	381,962	May 1	88	22	43	532
Stevens, Henry K. (See Stevens, William H., assignor.)						
Stevens, James S., and G. Camter, Cleveland, Ohio. Dish-washer .....	378,152	Feb. 21	1217	317	42	750
Stevens, John, Neenah, Wis. Pump .....	384,648	June 19	1206	318	43	1367
Stevens, John H. (See Lefferts and Stevens.)						
Stevens, John W., St. Paul, Minn. Steam-generator .....	393,864	Dec. 4	192	53	45	1108
Stevens, Joseph, San Francisco, Cal. Feeder for can-body-making machines .....	380,774	Apr. 10	709	196	43	150
Stevens, Joshua, assignor to J. Stevens Arms and Tool Company, Chicopee Falls, Mass. Draftsman's compasses .....	377,867	Feb. 14	798	204	42	602
Stevens, Joshua, assignor to J. Stevens Arms and Tool Company, Chicopee Falls, Mass. Callipers or dividers .....	377,868	Feb. 14	799	204	42	602
Stevens, Levi, Boston, Mass. Hydrocarbon-burner .....	394,517	Dec. 11	1154	300	45	1299
Stevens, Lewis, assignor of one-half to B. F. Winfield, Binghamton, N. Y. Apparatus for manufacturing baskets, &c. ....	382,378	May 1	588	149	43	622
Stevens, Lewis, assignor of one-half to B. F. Winfield, Binghamton, N. Y. Package for butter, &c. ....	386,277	July 17	1400	309	44	287
Stevens, Louis F., New York, N. Y. Hose-thimble for the walls of buildings .....	389,025	Sept. 4	321	84, 85	44	1133
Stevens, Robert L., and W. I. Horsey, Baltimore, Md. Moth-proof paper bag .....	395,190	Dec. 25	2281	585	45	1536
Stevens, Samuel, <i>et al.</i> (See Ballew, Richard J., assignor.)						
Stevens, Samuel S. (See Glasgow and Stevens.)						
Stevens, Sidney F. (See Hesseltine, Herbert E., assignor.)						
Stevens, Thomas G., Rectory Cottage, Swanscombe, county of Kent, England. Apparatus for controlling ships' rudders .....	381,035	Apr. 10	1113	{ 297 298 }	{ 43 43 }	{ 225 225 }
Stevens, Walter J., Whitesville, N. Y. Oliver .....	394,223	Dec. 11	723	192	45	1218
Stevens, Wellington D., Springfield, Mass. Dandy-roll .....	387,118	July 31	2646	696	44	545
Stevens, William, Philadelphia, Pa. Hatch-door .....	380,410	Apr. 3	152	43	43	32
Stevens, William F., San Francisco, Cal. Bicycle .....	390,916	Oct. 9	1005	263	45	203
Stevens, William H., Abbott, Miss. Door-check .....	376,117	Jan. 10	551	146	42	117
Stevens, William H., Abbott, Miss. Attachment for corn-planters .....	381,036	Apr. 10	1115	{ 298 299 }	{ 43 43 }	{ 225 225 }
Stevens, William H., Leicester, county of Leicester, England. Boot or shoe .....	387,119	July 31	2648	697	44	546
Stevens, William H., Leicester, county of Leicester, England. Boot or shoe .....	387,120	July 31	2648	697	44	546
Stevens, William H., assignor of one-half to H. K. Stevens, Buffalo, N. Y. Stem winding and setting watch .....	383,673	May 29	2677	708	43	1062
Stevens, William L., Boston, Mass. Driving-gear for electro-magnetically-propelled vehicles .....	394,734	Dec. 18	1521	{ 398 399 400 }	{ 45 45 45 }	{ 1386 1386 1386 }
Stevens, William L., Boston, Mass. Electro-magnetically-propelled vehicle .....	394,735	Dec. 18	1526	{ 401 401 401 }	{ 45 45 45 }	{ 1386 1386 1386 }
Stevens, William P., Deering, Me. Machine for forming pulp-cylinders .....	375,839	Jan. 3	154	43	42	35
Stevens, William X., Washington, D. C. Making combined wire-and-picket fences .....	383,022	May 15	1701	442	43	857
Stevenson, George, Northfield, Ind. Broadcast seed-sower .....	394,084	Dec. 4	506	136	45	1168
Stevenson, George W. (See Scroggs, James A., assignor.)						
Stevenson, John A., Atwood, Ill. Gate .....	394,736	Dec. 18	1533	401	45	1387
Stevenson, Martha J., Ocheltrieb, Kans. Sham pillow .....	389,987	Sept. 25	1809	479	44	1440
Stevenson, Thomas F., Brooklyn, N. Y. Hollow vessel and making the same .....	383,023	May 15	1703	442	43	858
Stevenson, William, Douglas Flat, assignor of one-half to J. Monteverde, Stockton, Cal. Bench-plane .....	394,411	Dec. 11	1005	264	45	1273
Stevenson, William A. (See Kelsey and Stevenson.)						
Stevenson, William P. (See Barafini and Stevenson.)						
Stever, James J., Owosso, Mich. Car-axle lubricator .....	385,213	June 26	2057	528	43	1543
Steward, George H. (See Steward, John F. and G. H.)						
Steward, George H., Plano, and J. F. Steward, Chicago, Ill. Grain-adjusting mechanism for harvesters .....	391,094	Oct. 16	1292	345	45	264
Steward, John F. (See Pitkin and Steward.)						
Steward, John F. (See Steward, George H. and J. F.)						
Steward, John F., Chicago, Ill. Grain-binder .....	382,842	May 15	1431	{ 376 377 }	{ 43 43 }	{ 805 805 }
Steward, John F., Chicago, Ill. Harvester-reel .....	390,530	Oct. 2	471	123	45	95
Steward, John F., Chicago, Ill. Harvesting-machine .....	390,531	Oct. 2	473	{ 123 124 }	{ 45 45 }	{ 95 95 }
Steward, John F., Chicago, Ill. Harvester-reel-driving mechanism .....	391,095	Oct. 16	1294	{ 345 346 431 }	{ 45 45 45 }	{ 265 265 327 }
Steward, John F., Chicago, Ill. Grain-adjusting device for self-binders .....	391,342	Oct. 16	1627	{ 430 431 283 }	{ 45 45 42 }	{ 327 327 222 }
Steward, John F., Chicago, and G. H. Steward, Plano, Ill. Low-level grain-binder .....	376,488	Jan. 17	1079	284	42	222
Stewart, Adoniram J., Chillicothe, Mo. Breast-strap .....	391,722	Oct. 23	2147	580	45	441
Stewart, Adoniram J., Chillicothe, Mo. Buckle .....	391,704	Oct. 23	2203	595	45	453
Stewart, Alexander W., assignor to R. Mitchell Furniture Company, Cincinnati, Ohio. Chair .....	391,822	Oct. 30	2306	625	45	482
Stewart, Amos N. (See Lybarger, John P., assignor.)						
Stewart, Anna M. E. (See Stewart, Theron S. and A. M. E.)						
Stewart, Benjamin F., New Philadelphia, Ohio. Harvester-frame .....	385,733	July 10	598	155	44	124
Stewart, Charles, Philadelphia, Pa. Reel-oven .....	377,965	Feb. 14	945	246	42	692
Stewart, Charles, Denver, Colo. Register for tilt-back chairs .....	392,294	Nov. 6	168	44	45	625
Stewart, Childs F., <i>et al.</i> (See Castilo, William M., assignor.)						
Stewart, Duncan, Glasgow, county of Lanark, Scotland. Machine for beetling cloth .....	387,749	Aug. 14	836	216	44	739
Stewart, Edgar J., Sheboygan, Wis. Packing for bottles .....	381,290	Apr. 17	1490	401	43	306
Stewart, George W., New York, N. Y. Gas-engine .....	381,488	Apr. 17	1790	{ 476 477 }	{ 43 43 }	{ 365 365 }
Stewart, George W., assignor to B. F. Mosher, New York, N. Y. Steam-engine .....	376,271	Jan. 10	772	205	42	158
Stewart, Henry, and W. B. Wiswall, Longmont, Colo. Spring-hammer for blacksmiths .....	385,018	June 26	1766	457	43	1484
Stewart, Henry L., Norwich, N. Y. Railway-ticket .....	393,793	Dec. 4	83	23	45	1069
Stewart, James S., Philadelphia, Pa., and F. Stone, Brooklyn, N. Y. Pipe-coupling .....	385,148	June 26	1967	505	43	1524
Stewart, John. (See Garnier, Martin J., assignor.)						
Stewart, John, Newark, N. J. Fan for ventilating purposes .....	382,119	May 1	357	94	43	579
Stewart, John, Newark, N. J. Button-making device .....	384,547	June 12	1058	276	43	1329
Stewart, John, New York, and G. W. Weiss, Brooklyn, N. Y. Sewing-machine .....	378,630	Feb. 28	1919	508	42	895
Stewart, John K., West Mansfield, Ohio. Toll-register .....	384,938	June 19	1633	424	43	1448
Stewart, Josephine, St. Louis, Mo. Dusting-brush .....	377,582	Feb. 7	343	88	42	561

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Stewart, Lee D., <i>et al.</i> (See Castlio, William M., assignor.)						
Stewart, Robert W., Mount Victory, Ohio. Barrel-hoop.....	392,473	Nov. 6	441	111	45	678
Stewart, Samuel, Newark, N. J. Fire-escape, fireman's ladder, and hose-elevator.....	393,038	Nov. 20	1272	320	45	855
Stewart, Samuel F., Paris, Tex. Combined pen or pencil holder and pin.....	387,187	July 31	2762	723	44	563
Stewart, Theron S. and A. M. E., Toledo, Ohio. Churn-dasher.....	380,226	Mar. 27	2025	541	42	1379
Stewart, Walter G. (See Johnson and Stewart.)						
Stewart, Walter H., Franklin, N. H. Knitting-machine.....	381,963	May 1	89	22, 23	43	532
Stewart, William A., assignor of one-half to J. F. Loxeman, Crisfield, Md. Oyster-dredge.....	382,624	May 8	1134	292	43	736
Stewart, William H., Brooklyn, N. Y. Combined pants-protector and pull-strap for shoes.....	383,500	May 29	2436	646	43	1012
Stewart, William H., assignor of three-fourths to R. M. Godfrey, Kansas City, Mo. Brick-machine.....	376,759	Jan. 24	1493	394	42	309
Stewart, William W., Brooklyn, N. Y. Fountain-pen.....	376,760	Jan. 24	1495	{ 394 } 395	42	309
Stewart, William W., Brooklyn, N. Y. Fountain-pen.....	378,986	Mar. 6	180	51	42	1001
Stewart, William W., Brooklyn, N. Y. Fountain-pen.....	378,987	Mar. 6	183	51	42	1001
Stewart, William W., Brooklyn, N. Y. Pen-holder.....	381,179	Apr. 17	1336	357	43	276
Stewart, William W., Brooklyn, N. Y. Perfumery-bottle.....	390,317	Oct. 2	160	45	45	35
Steyler, J. J., trustee. (See Cuffen, Elisha B., assignor.)						
Stickley, William H., Terre Haute, Ind. Fifth-wheel.....	391,343	Oct. 16	1628	431	45	328
Stickler, William C., Belle Plaine, Kans. Clamp.....	377,693	Feb. 7	516	132	42	592
Stickney, Henry C., Portland, Oreg. Truss.....	381,727	Apr. 24	2111	561	43	433
Stickney, Henry R. (See Conant and Stickney.)						
Stickney, John H., Boston, Mass. Lumberman's boot.....	388,597	Aug. 28	2147	576	44	1006
Stickney, Paul, Madeira, assignor of one-half to J. N. Gamble, Hamilton, Ohio. Apparatus for distilling fatty acids.....	384,725	June 19	1325	{ 345 } 346	43	1389
Stickney, William A., St. Louis, Mo. Blind-stop.....	376,686	Jan. 17	1385	365	42	278
Stidham, John, Rochester, Pa. Oven-thermometer.....	384,876	June 19	1557	{ 404 } 405	43	1432
Stiebritz, Moritz, and A. Miller, Schentzen Park, N. Y. Utensil-head for canes, &c.....	383,598	May 29	2566	679	43	1038
Stiegler, Xavier, Jr., and J. Cargamel, Bar le Duc, Menne, France. Making corsets.....	378,023	Feb. 14	1023	267	42	707
Stier, Josephus, assignor of one-half to B. L. Henderson, Baltimore, Md. Dust-guard for car-axle boxes.....	390,991	Oct. 9	1124	297	45	225
Stifter, William J., Bridgeton, assignor of one-half to S. M. Manifold, York, Pa. Metallic railway-tie.....	391,492	Oct. 23	1842	492	45	378
Stiggleman, James H., Lincolnville, Ind. Automatic school-desk and seat.....	392,692	Nov. 13	1051	{ 271 } 272	45	806
Stiggleman, James H., assignor to A. W. Straughn, Lincolnville, Ind. Automatic corn-dropper.....	378,808	Feb. 28	2182	581	42	944
Stigler, Augusto, Milan, Italy. Safety appliance for elevators.....	377,537	Feb. 7	286	72	42	550
Stiles, Edward R., Litchfield, Ill. Weather-strip for car-doors.....	381,037	Apr. 10	1117	299	43	225
Stiles, Edward R., Litchfield, Ill. Combined metal tie and fastening for railways.....	381,860	Apr. 24	2347	609	43	490
Stiles, Elmer A., St. Cloud, Minn. Device for suspending animals.....	379,251	Mar. 13	562	156	42	1078
Stiles, Frederic. (See Cooke, David B., assignor.)						
Stiles, George W., Smith's Mills, Pa. Motor for churns.....	393,314	Nov. 20	1657	{ 437 } 438	45	932
Stiles, Luther R., Chicago, Ill. Stock-car.....	382,843	May 15	1433	377	43	805
Stiles, Norman C., Middletown, Conn. Copying letters and documents.....	377,583	Feb. 7	344	89	42	561
Stille & Duhlmeier. (See Haddock, Worcester, assignor.)						
Stille, Oscar Q. (See Stille, Theodore J. and O. Q.)						
Stille, Theodore J. and O. Q., assignors of one-fifth to J. A. Menche, St. Louis, Mo. Folding coop or crate.....	383,833	May 29	2936	776	43	1111
Stillman, Charles F., New York, N. Y. Velocipede.....	377,869	Feb. 14	800	204	42	602
Stillman, Charles F., New York, N. Y. Velocipede.....	381,038	Apr. 10	1118	299	43	226
Stillman, George F., Syracuse, N. Y. Turn-buckle.....	390,992	Oct. 9	1125	297	45	225
Stillman, Ira B., Wellsville, N. Y. Folding fire-escape.....	376,216	Jan. 10	700	186	42	144
Stillman, Thomas B., Hoboken, N. J., assignor of three-fourths to C. B. Harris, New York, N. Y. Apparatus for the manufacture of gas.....	377,694	Feb. 7	517	132	42	592
Stillman, Thomas B., Hoboken, N. J., assignor of three-fourths to C. B. Harris, New York, N. Y. Manufacture of water-gas.....	377,695	Feb. 7	518	133	42	593
Stillman, Willett D., Madison, Wis. Trunk.....	386,902	July 31	2340	615	44	486
Stilson, Abel G., Cobleskill, N. Y. Cover for pots.....	392,762	Nov. 13	865	231	45	768
Stilson, Clarence H., New Haven, Conn. Elevator.....	392,700	Nov. 13	770	195	45	749
Stilson, George W., Brooklyn, N. Y. Chamber-pail.....	381,180	Apr. 17	1338	357	43	276
Stilwell & Bierce Manufacturing Company. (See Rice, Alva C., assignor.)						
Stilwell, Charles, Trenton, N. J. Apparatus for the manufacture of vaporous and gaseous fuel.....	386,364	July 17	1510	400	44	309
Stilwell, Emeline C., <i>et al.</i> (See Stilwell, Rickason, assignor.)						
Stilwell, Rickason, assignor to B. Willard and E. C. Stilwell, New York, N. Y. Screw.....	383,834	May 29	2937	776	43	1111
Stilwell, William T. (See Benson and Stilwell.)						
Stimpson, Edward S., assignor to Dutcher Temple Company, Hopedale, Mass. Manufacturing rings for loom-templates.....	388,155	Aug. 21	1496	398	44	873
Stimpson, Edwin B., Brooklyn, N. Y. Machine for ornamenting leather and other materials.....	376,613	Jan. 17	1266	{ 331 } 332	42	257
Stimpson, Edwin B., Jr., Brooklyn, N. Y. Machine for setting eyelets.....	391,208	Oct. 16	1445	387	45	294
Stimpson, Edwin B., Jr., Brooklyn, N. Y. Eyeletting-machine.....	391,925	Oct. 30	2452	{ 662 } 663	45	512
Stimson, Ashbel A., Montpelier, Vt. Spring-tooth harrow.....	390,812	Oct. 9	855	237	45	175
Stine, William H., Marietta, Ind. Tension for self-binders.....	379,083	Mar. 6	321	93	42	1026
Stine, William H., Marietta, Ind. Tension device for grain-binders.....	384,391	Dec. 18	1793	465	45	1437
Stiner, Frank, and E. R. Darling, North Monson, assignors of one-third to C. Atwater, Pittsfield, Mass. Cartridge-shell.....	377,816	Feb. 14	733	185	42	619
Stinerick, William A. (See McNeal and Stinerick.)						
Stirling, Allan, Yonkers, N. Y. Boiler and furnace.....	381,595	Apr. 24	1953	515	43	415
Stirling, Clarence C., assignor to C. E. Dustin, Hartford, Conn. Switch for electric circuits.....	382,332	May 8	679	172	43	618
Stirling, Clarence C., assignor to C. E. Dustin, Hartford, Conn. Switch for electric circuits.....	382,333	May 8	681	172	43	648
Stites, George, assignor to W. Cramp & Sons Ship and Engine Building Company, Philadelphia, Pa. Index-machine.....	391,345	Oct. 16	1632	432	45	328
Stites, Wellington. (See McCracken, George B., assignor.)						
Stitzel, Frederick, assignor to American Semaphore Company, Louisville, Ky. Automatic electrical switch.....	382,625	May 8	1135	292	43	736
Stitzel, Frederick, and C. Weimedel, Louisville, Ky. Semaphore signal apparatus.....	380,409	Apr. 3	148	43, 43	43	31
Stitzel, Frederick, and C. Weimedel, assignors to American Semaphore Company, Louisville, Ky. Telegraph-relay.....	385,214	June 26	2058	528	43	1543
Stitzel, Frederick, and C. Weimedel, assignors to American Semaphore Company, Louisville, Ky. Electrical connector.....	385,215	June 26	2059	528	43	1544

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.'g.	Vol.	Page.
Stitzel, Frederick, and C. Weinedel, assignors to American Semaphore Company, Louisville, Ky. Device for securing wire to railway-rails.	385,484	July 3	228	50	44	45
Stitzel, Frederick, and C. Weinedel, assignors to American Semaphore Company, Louisville, Ky. Telegraph-relay.	389,337	Sept. 11	818	209	44	1236
Stitzel, Frederick, and C. Weinedel, assignors to American Semaphore Company, Louisville, Ky. Semaphore-signal.	393,865	Dec. 4	193	53, 54	45	1108
Stivers, Rufus M. (See Tilton, Joseph, assignor.)						
Stixrud, Martinus, Seattle, Wash. Ter. Instrument for plotting contours of ground.	385,780	July 10	673	176	44	139
Stobaeus, John B., Newark, N. J. Apparatus for regulating fluid-pressure.	379,667	Mar. 20	1183	313	42	1205
Stockdale, Alexander, Wolcott, Iowa. Pinch-bar.	388,461	Aug. 28	1953	523	44	969
Stockdale, Richard, Halton, and T. Stockdale, Darwen, county of Lancaster, England. Churn.	388,740	Aug. 28	2345	632	44	1014
Stockdale, Thomas. (See Stockdale, Richard and T.)						
Stocker, William F., assignor to W. H. Byers, Eureka, Kans. Electric circuit closer.	377,538	Feb. 7	287	73	42	570
Stocker, William F., assignor to W. H. Byers, Eureka, Kans. Electric bell.	377,539	Feb. 7	288	73	42	550
Stocker, William F., assignor of one-half to W. O. Van Arsdale, Burrton, Kans. Time-switch for secondary batteries.	393,183	Nov. 20	1461	381	45	893
Stocker, William F., assignor of one-half to W. O. Van Arsdale, Burrton, Kans. Electric meter.	393,315	Nov. 20	1658	438	45	932
Stockheim, Heinrich, Mannheim, Baden, Germany, assignor to S. and F. Uhlmann, New York, N. Y. Filtering process for beer.	378,379	Feb. 21	1551	406	42	814
Stocking, Milton D., Lindenwood, Ill. Air or steam coupling for railway-cars.	395,089	Dec. 25	2103	545	45	1507
Stocks, John T., <i>et al.</i> (See Atkinson, Andrew J., assignor.)						
Stockstrom, Charles A., assignor of one-half to L. Stockstrom, St. Louis, Mo. Vapor-stove attachment.	390,024	Oct. 2	583	156	45	118
Stockstrom, Louis. (See Stockstrom, Charles A., assignor.)						
Stockton Combined Harvester and Agricultural Works. (See Minges, John, assignor.)						
Stockton, James I., Hartsells, Ala. Reclining attachment for chairs.	375,840	Jan. 3	155	44	42	35
Stockton, Robert N., assignor of one-half to W. F. Cramer, Philadelphia, Pa. Toy marble-shooter.	379,913	Mar. 20	1578	415	42	1220
Stockwell, George E., assignor of one-half to W. M. Copeland, Fitchburg, Mass. Lamp-shade holder and shade.	383,415	May 22	2293	609	43	977
Stockwell, John W., Portland, Me. Manufacture of articles from hydraulic cement.	384,295	June 12	682	182	43	1206
Stockwell, Mathew H., Altoona, Wis. Coal stove or heater.	393,932	Dec. 4	291	79	45	1128
Stoddard, E. Fowler, and A. P. Brown, assignors to Stoddard Manufacturing Company, Dayton, Ohio. Mowing-machine.	388,741	Aug. 28	2346	632 633	44	1014
Stoddard Manufacturing Company. (See Davis, Reese O., assignor.)						
Stoddard Manufacturing Company. (See Little, Peter E., assignor.)						
Stoddard Manufacturing Company. (See Stoddard and Brown, assignors.)						
Stoddard, Charles H., New York, N. Y. Wash-boiler.	387,605	Aug. 7	626	163	44	693
Stoecklin, Ernest, New York, N. Y. Vise.	394,793	Dec. 18	1631	427 428	45	1407
Stofer, William A., Foxburg, Pa. Car-brake.	395,012	Dec. 25	1996	515	45	1454
Stohmann, Frederick A., Brooklyn, assignor to G. Tiemann & Co., New York, N. Y. Clamping device for forceps, &c.	385,076	June 26	1865	476	43	1503
Stokes, George R., W. Loney, Hanley, and T. M. Favell, Etruria, county of Stafford, Eng. land. Recorder for cash-tills.	384,337	June 12	750	197	43	1271
Stokes, George W. (See Stokes, James and G. W.)						
Stokes, James and G. W., Atlanta, Ga. Rasp-cutting machine.	376,400	Jan. 10	943	247 248	42	189
Stokes, Philip S., Tennent, N. J. Rasp.	383,999	June 5	234	68	43	1166
Stokes, Samuel E., Philadelphia, Pa. Elevator.	384,096	June 5	371	104 105	43	1192
Stollwerck, Gebr. (See Jungmans, Arthur, assignor.)						
Stollwerck, Heinrich, Cologne, Prussia, Germany, assignor to Schilling, Stollwerck & Co., New York, N. Y. Apparatus for the delivery of a given quantity of liquid in exchange for a coin.	389,909	Sept. 25	1696	448 449	44	1418
Stollwerck, Ludwig, Cologne-on-the-Rhine, Prussia, Germany, assignor to J. H. Volkmann, New York, N. Y. Vending apparatus.	384,030	June 19	1634	424 425	43	1446
Stone, Frank, Worcester, Mass., assignor to Aeolian Organ and Music Company, of Connecticut. Mechanical musical instrument.	394,794	Dec. 18	1634	428	45	1407
Stone, Frederic M., Union Hill, N. J. Bill-book file.	382,497	May 8	935	237	43	695
Stone, Frederick. (See Stewart and Stone.)						
Stone, George A., Richmond, Mo. Wagon-box unloader.	391,723	Oct. 23	2148	581	45	441
Stone, Harley A. (See Bancroft and Stone.)						
Stone, Harley A., Worcester, Mass. Die for cutting and pointing wire nails.	377,722	Feb. 7	554	142	42	599
Stone, Heman W., Jr., Morris, Minn. Middlings-purifier.	375,782	Jan. 3	83	25	42	20
Stone, Henrie D. (See Weeks and Stone.)						
Stone, Henry, Irvington, assignor of one-half to A. Vincent, Newark, N. J. Device for preventing the escape of gas from waste-pipes of sinks.	392,645	Nov. 13	693	174	45	733
Stone, Henry, and W. H. Pitt, Brooklyn, assignors to United States Weighing Machine Company, New York, N. Y. Coin-controlled weighing-machine.	393,593	Nov. 27	2077	543 544	45	1025
Stone, Hosca. (See Webb, Edward E., assignor.)						
Stone, Isaac B., Seffner, Fla. Advertising-cabinet.	377,414	Feb. 7	107	22	42	515
Stone, James. (See Gardner, Marshall, assignor.)						
Stone, James, <i>et al.</i> (See Gardner, Marshall, assignor.)						
Stone, James, and M. Gardner, Aurora, Ill. Apparatus for shaping corsets.	383,416	May 22	2294	609	43	978
Stone, John A., Vail, Iowa. Corn-harvesting machine.	380,117	Sept. 4	476	122 123	41	1161
Stone, John A., Chicago, Ill. Drive-chain.	393,491	Nov. 27	1932	505	45	993
Stone, John A., assignor to W. Decring & Company, Chicago, Ill. Drive-chain.	393,490	Nov. 27	1931	505	45	992
Stone, John H., Hamilton, Ontario, Canada. Tubular lantern.	382,626	May 8	1137	293	43	737
Stone, Joseph H., Andover, assignor to Davis & Furber Machine Company, North Andover, Mass. Warping-reel.	389,862	Sept. 18	1624	429	44	1296
Stone, Joseph M., assignor to Davis & Furber Machine Company, North Andover, Mass. Spooling-machine.	376,834	Jan. 24	1625	425	42	332
Stone, Madge. (See Starr, Eben T., assignor.)						
Stone, Marvin C., Washington, D. C. Artificial straw.	375,962	Jan. 3	324	86	42	67
Stone, Myron, Texas, N. Y. Beer-pitcher.	381,291	Apr. 17	1491	402	43	306
Stone, Oren. (See Skinner, John, assignor.)						
Stone, R. Arthur. (See Rix, Benjamin F., assignor.)						
Stone, Samuel, North Manchester, Conn., assignor to Neverslip Horse Shoe Company, Boston, Mass. Horseshoe-calk.	380,362	Apr. 3	88	27	43	20
Stone, Thomas D., assignor to H. L. Judd & Company, New York, N. Y. Extension lamp-support.	394,224	Dec. 11	725	192	45	1218

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Stone, William. (See Taylor, Arthur, assignor.)						
Stonemetz, John H., Erie, Pa., assignor to Stonemetz Printer's Machinery Company, Millbury, Mass. Combined paper cutting and folding machine.	376,052	Jan. 3	453	120 121 122	42	91
Stonemetz, John H., Erie, Pa., assignor to Stonemetz Printer's Machinery Company, Millbury, Mass. Web-printing machine.	376,053	Jan. 3	456	122 123	42	91
Stonemetz, John H., assignor to Stonemetz Printer's Machinery Company, Millbury, Mass. Point mechanism for book-folding machines.	379,737	Mar. 20	1284	342 343	42	1225
Stonemetz Printer's Machinery Company. (See Stonemetz, John H., assignor.)						
Stoner, Allen M., Topeka, Kans. Velocipede.	378,631	Feb. 28	1921	509	42	895
Stoner, Levi A. (See Holl, Henry C., assignor.)						
Stones, John A. (See Norton and Stones.)						
Stoppie, John J., Bellville, Tex. Carpenter's hatchet.	380,927	Mar. 27	2026	541	42	1379
Storck, Anna, Cincinnati, Ohio. Button and fastener.	378,182	Feb. 21	1258	332	42	758
Storek, Carl T. (See Ehrlich and Storek.)						
Storer, William, Nottingham, England. Metal lid for jugs, tea-pots, &c.	379,184	Mar. 6	450	126 127	42	1052
Storey, Albert H., assignor to Storey Patent Case Company, (limited,) London, England. Box or case.	382,120	May 1	360	94	43	580
Storey, Julius W. (See Olsson and Storey.)						
Storey Patent Case Company. (See Storey, Albert H., assignor.)						
Stork, Frederick, Kewasum, Wis. Milk-can cover.	383,024	May 15	1704	443	43	853
Storle, Ole O., Milwaukee, Wis., assignor of one-half to J. H. Gordon, Rochester, N. Y. Automatic trip for grain-binders.	380,605	Apr. 3	450	127	43	91
Storm, Edward. (See Parsons, John G., assignor.)						
Storm, Edward, Poughkeepsie, N. Y. Spring for vehicles.	375,902	Jan. 3	231	63	42	49
Storm, Edward, Poughkeepsie, N. Y. Vehicle-spring.	377,584	Feb. 7	345	89	42	562
Storm, Edward, Poughkeepsie, N. Y. Bottle.	379,615	Mar. 20	1107	294	42	1189
Storm, Edward, Poughkeepsie, N. Y. Fifth-wheel.	390,042	Sept. 25	1889	498	44	1457
Storm, Edward, Poughkeepsie, N. Y. Bottle. (Reissue.)	10,969	Nov. 27	2291	601	45	1066
Storm, Edward, assignor to E. Storm Spring Company, (limited,) Poughkeepsie, N. Y. Spring-vehicle.	382,443	May 8	851	217	43	681
Storm Spring Company, Edward. (See Humphrey, Abraham S., assignor.)						
Storm Spring Company, Edward. (See Storm, Edward, assignor.)						
Stormer, Henrik C. F., Christiania, Norway. Inhaling apparatus.	391,564	Oct. 23	1933	521	45	398
Storrs, Joseph W., New London, Conn. Boot for carriages.	381,965	May 1	96	23	43	533
Storrs, Joseph W., New London, Conn. Car-heater.	383,835	May 20	2938	777	43	1111
Story, Alexander, Washington, Iowa. Car-coupling.	377,841	Feb. 14	767	195	42	655
Story, Benjamin F., et al. (See Gay, Thomas J., assignor.)						
Story, John, Castle Shannon, Pa. Pipe-coupling.	381,966	May 1	97	23	43	533
Story, John, Castle Shannon, Pa. Pipe-coupling.	385,287	June 26	2182	558	43	1568
Story, John, Goderich, Ontario, Canada. Carpet-stretcher.	387,930	Aug. 14	1117	297	44	794
Story, William R., assignor to E. S. Havens, Cincinnati, Ohio. Spherical blackboard.	379,914	Mar. 20	1578	416	42	1280
Story, William R., assignor to E. S. Havens, Cincinnati, Ohio. Attachment for spherical blackboards.	379,915	Mar. 20	1580	416	42	1281
Stouffer, Hiram C., Cortland, Ohio. Force-pump.	389,419	Sept. 11	942	247	44	1259
Stout, Charles F., Trenton, N. J. Brick-press.	393,128	Nov. 20	1387	362	45	878
Stout, Eliza, Lambertville, N. J. Rubber shoe.	384,097	June 5	372	105	43	1192
Stout, George H., New York, N. Y. Electrode for secondary batteries.	392,080	Oct. 30	2682	730	45	556
Stout, George W. (See Black and Stout.)						
Stout, John M., et al. (See Payne, Samuel A., assignor.)						
Stout, John R., Brooklyn, N. Y. Machine for making boxes.	393,404	Nov. 27	1791	473	45	967
Stover, Cochran C., Bradford, Pa. Apparatus for operating oil-well pumps.	383,625	May 15	1705	443	43	858
Stover, Daniel C., Freeport, Ill. Windmill.	385,503	July 24	1729	456 457	44	363
Stover, Daniel C., Freeport, Ill. Spring-hinge.	391,006	Oct. 16	1296	346	45	265
Stover, Daniel C., Freeport, Ill. Spring-hinge.	391,433	Oct. 23	1758	471	45	360
Stover, Daniel C., Freeport, Ill. Spring-hinge.	391,434	Oct. 23	1759	471	45	360
Stover, Daniel C., Freeport, Ill., assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Apparatus for casting metals.	379,137	Mar. 6	399	113	42	1011
Stover, Daniel C., Freeport, Ill., assignor of one-half to Washburn & Moen Manufacturing Company, Worcester, Mass. Casting metal.	381,655	Apr. 24	2036	533	43	432
Stover, Daniel C., and O. E. Winger, Freeport, Ill. Machine for forming fabrics from wire.	376,560	Jan. 17	1178	310 311	42	240
Stow, Audley H., Baltimore, Md. Caustic-soda steam-engine.	381,967	May 1	98	24	43	533
Stowe, Benjamin L., Brooklyn, assignor of three-fourths to J. V. Reed, New York, N. Y. Knitted fabric.	393,185	Nov. 20	1464	382	45	894
Stowe, Benjamin L., Brooklyn, assignor of three-fourths to J. V. Reed, New York, N. Y. Knitting-machine.	393,186	Nov. 20	1466	382 383	45	894
Stowe, Benjamin L., Brooklyn, assignor of three-fourths to J. V. Reed, New York, N. Y. Knitting-machine.	393,187	Nov. 20	1468	383 384	45	895
Stowe, Benjamin L., assignor of three-fourths to J. V. Reed, New York, N. Y. Knitting-machine.	393,184	Nov. 20	1463	382	45	894
Stowe, Benjamin L., assignor of three-fourths to J. V. Reed, New York, N. Y. Knitted fabric for machine-belt, &c.	393,188	Nov. 20	1475	385	45	875
Stowe, Benjamin L., assignor of three-fourths to J. V. Reed, New York, N. Y. Knitting-machine.	393,189	Nov. 20	1476	385 386	45	896
Stowe, Charles, Manchester, N. H. Light-extinguisher.	393,933	Dec. 4	292	79	45	1128
Stowe, Charles W., Salina, Kans. Tonic compound.	377,842	Feb. 14	768		42	656
Stowe, Leroy S., Newry, Me. Mat for horse-stalls.	377,786	Feb. 14	686	173 174	42	641
Stowe, Leroy S., Newry, Me. Mat for horse-stalls.	385,149	June 26	1968	503	43	1524
Stowe, Samuel F., assignor of one-half to W. G. Kelley, Providence, R. I. Cake or bread heater.	376,420	Jan. 10	981	256	42	195
Stowell, William H., Eureka, Nev. Automatic railway-switch.	378,809	Feb. 28	2183	582	42	945
Strachan, Joseph, Brooklyn, N. Y. Photographic-printing frame.	380,639	Apr. 3	493	138	43	101
Strader, George, assignor of one-half to S. V. Wilcox, Olive Hill, Ky. Car-coupling.	386,790	July 24	2140	562	44	440
Striffin, Charles H., and G. L. Robertson, Chicago, Ill. Oil-can.	385,328	June 26	2245	575	43	1580
Straight, Clarence H. (See Garver and Straight.)						
Straight, Clarence H., assignor of one-half to D. A. Garver, Bryan, Ohio. Wheel for vehicles.	391,987	Oct. 30	2544	688	45	530
Strait, Andrew V., Sidney, N. Y. Advertising-clock.	385,430	July 3	145	39	44	30
Strait, Lucelle J., Kalamazoo, Mich. Rotary engine.	388,379	Aug. 21	1845	490	44	940
Strait, William, Elmira, N. Y. Sulky-plow.	376,788	Jan. 24	1554	408	42	320
Strang, Lew K., assignor to himself and G. W. Ham, Haverhill, Mass. Lock.	392,646	Nov. 13	694	174	45	733



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Strange, John. (See Field, Wallace L., assignor.)						
Strasser, Louis, Columbus, Ohio. Sash-cord fastener.	384,649	June 19	1208	319	43	1367
Stratton, Charles H., Salem, Ohio. Jump-seat vehicle.	385,329	June 26	2246	{ 575 576 }	43	1580
Stratton, Charles M. (See Stratton, Edwin A. and C. M.)						
Stratton, Edwin A. and C. M., Greenfield, Mass. Spirit-level.	383,196	May 22	1964	515	43	918
Stratton, George F. (See Hemmenway and Stratton.)						
Stratton, James and W. J., Brooklyn, N. Y. Night-light attachment.	395,000	Dec. 25	2105	545	45	1507
Stratton, William J. (See Stratton, James and W. J.)						
Straub, Carl, Syracuse, N. Y. Wall-covering composition.	392,740	May 15	1302		43	778
Straub, Carl, assignor to Adamant Manufacturing Company, Syracuse, N. Y. Composition of building material for architectural purposes.	392,528	Nov. 6	515		45	693
Straub, Carl, assignor to Adamant Manufacturing Company, Syracuse, N. Y. Composition of building material for architectural purposes.	394,518	Dec. 11	1157		45	1300
Straub, Carl, assignor to Adamant Manufacturing Company, Syracuse, N. Y. Composition of matter for architectural purposes.	395,091	Dec. 25	2106		45	1507
Straub, John, <i>et al.</i> (See Pickard and Mclson, assignors.)						
Strauch, Peter D. (See Unland, Wilhelm, assignor.)						
Straughn, A. W. (See Stiggleman, James H., assignor.)						
Straughn, Alanson W., Lincolnville, Ind. Straw-stacker.	377,723	Feb. 7	555	142	42	599
Strauss, Aaron, <i>et al.</i> (See Jacoby and Luyties, assignors.)						
Strauss, Moses H., Columbus, Ohio. Ticket-holder.	377,176	Jan. 31	2098	553	42	434
Strauss & Co. (See Strauss, Leopold, assignor.)						
Strauss, Ferdinand, New York, N. Y. Pocket postal-stamp and ticket holder.	384,000	June 5	234	68	43	1160
Strauss, Gustavus E., New York, and J. B. West, Rochester, N. Y. Bead-feeding attachment for embroidering-machines.	392,893	Nov. 13	1054	272	45	806
Strauss, Leopold, assignor to Strauss & Co., Norwich, Conn. Display-frame.	378,407	Feb. 21	1598	419	42	823
Straw, Herman F., Manchester, N. H. Flier-frame.	376,118	Jan. 10	551	147	42	117
Straw, Herman F., Manchester, N. H. Winding or balling machine.	379,616	Mar. 20	1107	294	42	1189
Strayer, J. Fink, <i>et al.</i> (See Manning, Bradley, assignor.)						
Strayer, Jacob J. (See Potter, Jonas, assignor.)						
Stream, Edgar L., New Orleans, La. Centrifugal pump.	387,264	Aug. 7	94	24	44	590
Street, Clement F., Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Switch-joint chair for railways.	391,565	Oct. 23	1934	{ 521 522 }	45	399
Street, Samuel T., Deposit, N. Y. Gate for railway-crossings.	380,228	Mar. 27	2027	542	42	1379
Streeter, Daniel A., Waterbury, Conn. Apparatus for placing hydraulic and other pipes in trenches.	388,598	Aug. 28	2148	576	44	1007
Streeter, George D., Waco, Tex. Fire-kindler.	380,606	Apr. 3	452	128	43	92
Streeter, George D., Waco, Tex. Fire-kindler.	380,607	Apr. 3	453	128	43	92
Streeter, Herbert A. (See Anet, Edward H., assignor.)						
Streeter, Martin V., Franklin Falls, N. H. Screen-scraper for pulp or paper mills.	383,026	May 15	1706	443	43	858
Streetman, Willard, Ad Hall, Tex. Syringe.	381,511	Apr. 17	1828	483	43	373
Stribling, John V., Westminster, S. C. Vehicle-wheel.	384,650	June 19	1208	319	43	1367
Strickel, Louis, assignor of one-half to G. C. Wetherbee, Detroit, Mich. Brush.	390,715	Oct. 9	720	190	45	151
Strickland, John F., <i>et al.</i> (See Hopson, Franklin O., assignor.)						
Striegel, George F., Buffalo, N. Y. Saw-guide.	380,828	Apr. 10	786	215	43	164
Stringfellow, George. (See Thomas, Thomas C., assignor.)						
Strobbhar, James N. (See McQueen, Fletcher J., assignor.)						
Strom, Axel A., Austin, Ill. Switch-stand.	378,024	Feb. 14	1024	268	42	707
Strom, Axel A., Austin, Ill. Forming a rail-brace from T-metal.	380,668	Apr. 3	545	149	43	110
Strom, Axel A., Austin, Ill. Train-order signal.	385,883	July 10	829	{ 219 220 }	44	169
Strom, Axel A., Austin, Ill. Compensator for signal-lines.	385,884	July 10	832	220	44	169
Strom, Axel A., Austin, Ill. Lifting-jack.	385,885	July 10	815	220	44	170
Strom, Axel A., Austin, Ill. Lifting-jack.	386,791	July 24	2140	562	41	440
Strom, Axel A., Austin, Ill. Lifting-jack.	388,156	Aug. 21	1497	398	41	873
Strom, Axel A., Austin, Ill. Semaphore.	389,611	Sept. 18	1236	323	44	1320
Strom, Axel A., Austin, Ill. Lifting-jack.	390,813	Oct. 9	836	227	45	175
Strom, Axel A., Austin, Ill. Metal-bending die.	390,814	Oct. 9	858	228	45	176
Strom, Axel A., Austin, Ill. Lifting-jack.	394,308	Dec. 11	857	227	45	1244
Strom, Axel A., Austin, Ill. Switch-rail chair.	394,309	Dec. 11	858	227	45	1245
Strom, Axel A., Austin, Ill. Clip for railway-switch pivotal tie-rods.	394,943	Dec. 18	1885	487	45	1454
Strom, Axel A., Cicero, Ill. Railway-switch stand.	394,415	Dec. 11	1010	265	45	1274
Strom Manufacturing Company <i>et al.</i> (See Bowen, David, assignor.) (Reissue.)						
Stronach, William E. (See Cochran, William N., assignor.)						
Strong, George H., Chicago, Ill. Folding furniture.	390,815	Oct. 9	860	228	45	176
Strong, George M., Boston, Mass. Water-hook for harness.	384,098	June 5	373	105	43	1192
Strong, George S., New York, N. Y. Junction-piece for steam-boilers.	381,039	Apr. 10	1118	{ 299 300 }	43	226
Strong, George S., New York, N. Y. Steam-boiler.	382,061	May 1	276	72, 73	43	564
Strong, George S., New York, N. Y. Engine-valve.	385,967	July 10	932	247	44	191
Strong, George S., New York, N. Y. Locomotive-boiler.	385,968	July 10	933	247	44	191
Strong, John P. (See Potts, James W., assignor.)						
Strong, Norton. (See Rumble, Symington, and Strong.)						
Strong, Walter L., San Francisco, Cal. Propeller-wheel.	378,221	Feb. 21	1314	349	42	770
Strong, William. (See Jacob, Frank A., assignor.)						
Stroud, Henry M., Chase, Kans. Watch-chain attachment.	382,627	May 8	1138	293	43	737
Stroud, Wiley N. (See Hatch and Stroud.)						
Stroup, George M., Philomath, Oreg. Stump-extractor.	381,861	Apr. 24	2348	609	43	490
Strout, Edward E., assignor of one-half to W. Smith, Lynn, Mass. Staging.	378,810	Feb. 28	2185	582	42	945
Strout, Horace C., <i>et al.</i> (See Farmer, Julius M., assignor.)						
Strowbridge, Hines. (See Macbrair, Charles C., assignor.)						
Strub, Frank, and W. Neudel, Lemars, Iowa. Hay-loader.	379,341	Mar. 13	692	187	42	1103
Struble, Charles W., Wauseon, assignor to J. M. Longnecker, Delta, A. L. Flack, Tiffin, and H. S. Hull, Wauseon, Ohio. Folded box or pallet.	390,266	Oct. 2	96	28	45	22
Struble, John D. (See Packard and Struble.)						
Struck, Charles E., assignor of one-half to J. A. Baldwin, Newark, N. J. Car-heater.	383,417	May 22	2296	{ 609 610 }	43	978
Strunk, Daniel. (See Kennedy and Strunk.)						
Strunk, Daniel, assignor of two-thirds to Minneapolis Harvester Works, Minneapolis, Minn. Low-down grain-binding harvester.	379,830	Mar. 20	1436	{ 381 382 }	42	1255
Strunk, Milton R., Boyertown, Pa. Vehicle-sprung.	390,625	Oct. 2	590	156	45	119
Strupp, Josef, New York, N. Y. Cooking-stove.	383,418	May 22	2298	610	43	978
Stuart, David M., Traer, Iowa. Halter.	383,836	May 29	2940	777	43	1112

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Stuart, Douglass C. (See Perkins and Stuart.)						
Stuart, Ithamer W., and R. J. Gubbins, Cedar City, Mo. Churn-motor.....	378,059	Feb. 14	1068	280	42	715
Stuart, James, Lakeville, Conn. Side-bar vehicle.....	392,572	Nov. 6	575	145	45	705
Stuart, James D., Brooklyn, N. Y. Spring bed-bottom.....	379,138	Mar. 6	400	113	42	1041
Stuart, Levi B., assignor of one-half to W. E. Roberts, Scymour, Conn. Truss.....	381,089	Apr. 10	1209	323	43	243
Stuart, Robert J., New Hamburg, N. Y. Shaft-coupling.....	386,278	July 17	1401	369	44	287
Stuart, Sinclair, Plainfield, N. J. Separator.....	383,674	May 29	2677	708	43	1062
Stubbers, Joseph, assignor to A. J. English and P. Crosley, Cincinnati, Ohio. Carburetor.....	385,485	July 3	229	59	44	45
Stubblefield, John L., et al. (See Hughes, Tyre C., assignor.)						
Stubblefield, Nathan B., and S. C. Holcomb, Murray, Ky. Mechanical telephone.....	378,183	Feb. 21	1259	332	42	758
Stubbs, Daniel H., assignor to T. Bilsborough, Prescott, county of Lancaster, England. Rein-holder.....	381,292	Apr. 17	1492	402	43	307
Stuck, Dewell, Big Rapids, Mich. Dental chair.....	376,016	Jan. 3	403	106	42	80
Stuck, Levi, Hart, Mich. Mechanism for lowering dental chairs.....	390,816	Oct. 9	861	228	45	176
Stuck, Levi, Hart, Mich., assignor to H. D. Justi, Philadelphia, Pa. Dental chair.....	381,040	Apr. 10	1120	300	43	226
Stuckert, J. Franklin, Philadelphia, Pa. Alarm.....	387,265	Aug. 7	95	24	44	590
Stuckwisch, Rudolph, Cory, Ind. Egg-tester.....	378,853	Feb. 28	2263	602	42	959
Studley, Edward H. (See Blanchard, Horace, assignor.)						
Stump, Noah. (See Hoke, Lewis A., assignor.)						
Standen, Jesse, Gananoque, Ontario, Canada. Clothes-drier.....	389,336	Sept. 11	817	208	44	1236
Stuppe, Charles, et al. (See Gross, Hermann C., assignor.)						
Sturgeon, John C., Erie, Pa. Pipe or hose coupling.....	380,363	Apr. 3	89	27	43	20
Sturla, Jacob J. (See Ellis, Charles S., assignor.)						
Sturla, Jacob J. (See Ellis and Sturla.)						
Sturtevant, Henry U., et al. (See Lippitt, Elihu, assignor.)						
Sturtevant, Thomas L., Framingham, Mass. Spring-vehicle.....	385,019	June 26	1767	457	43	1485
Stutz, Sebastian, Pittsburg, Pa. Coal-washer.....	391,926	Oct. 30	2454	663	45	513
Stutz, Sebastian, Pittsburg, Pa. Coal-washer.....	392,974	Nov. 13	1172	304	45	828
Stutzenberger, John, Hike's Point, Ky. Combined seed-drill and cultivator.....	380,061	Mar. 27	1798	480	42	1334
Subers, Thomas N., assignor to J. F. Voss, Philadelphia, and J. W. Barry, Eagleville, Pa. Anti-friction bearing.....	388,228	Aug. 21	1592	424	44	892
Sublett, Edwin H., St. Louis, Mo. Hoe.....	386,040	July 10	1036	275	44	212
Sublett, James H. (See Shelbourne and Sublett.)						
Suehert, George. (See Davis, Jay C., assignor.)						
Sugg, William T., Westminster, England. Apparatus for heating water and other liquids.....	383,921	June 5	115	33	43	1143
Suggs, Pleasant W., Mobile, Ala. Sash-fastener.....	393,728	Nov. 27	2281	598	45	1064
Suhr, William M., Brooklyn, N. Y. Covering.....	383,599	May 29	2567	679	43	1038
Sullivan, Charles A. (See Sullivan, John D. and C. A.)						
Sullivan, Charles A. and J. D., Windsor, Ontario, Canada. Hood for horses.....	382,668	May 8	1202	312	43	750
Sullivan, Charles T., Lowell, Mass. Circular-knitting machine.....	376,789	Jan. 24	1557	409	42	321
Sullivan, James J., Brooklyn, N. Y. Caster-frame.....	394,310	Dec. 11	859	227	45	1245
Sullivan, Jeremiah J., Oswego, N. Y. Heating-drum.....	387,750	Aug. 14	837	216	44	739
Sullivan, Jeremiah J., Ludlow, Ky. Packing-ring.....	389,772	Sept. 18	1476	387	44	1368
Sullivan, Jeremiah J., Pawtucket, R. I. Shackle for vehicle-springs.....	390,917	Oct. 9	1006	263	45	203
Sullivan, John. (See Higgins and Sullivan.)						
Sullivan, John C. (See Ungemach, Theobald F., assignor.)						
Sullivan, John D. (See Sullivan, Charles A. and J. D.)						
Sullivan, John D., New Orleans, La. Combined cleaner and heater.....	389,720	Sept. 18	1410	368	44	1354
Sullivan, John D. and C. A., Windsor, Ontario, Canada. Animal-releasing device.....	385,077	June 26	1866	476	43	1503
Sullivan, John W., East Brighton, N. Y. Vehicle-spring.....	376,614	Jan. 17	1268	332	42	257
Sullivan Machine Company. (See Ball, Albert, assignor.)						
Sully, Robert M., Petersburg, Va. Seal-lock.....	380,369	Mar. 27	2079	557	42	1390
Sully, Thomas R. (See Roberts, Edward F., assignor.)						
Sulzer & Vogt. (See Poschinger, Mathias, assignor.)						
Summers, Alfred H. (See Cattell and Summers.)						
Summers, Edgar W., assignor to Hoosier Drill Company, Richmond, Ind. Pawl-and-ratchet mechanism for seeding-machines.....	394,085	Dec. 4	508	136	45	1169
Sumner, Adien E. (See Davis, John S., assignor.)						
Sumner, Charles W., et al., administrators. (See Merritt, Edward.)						
Sumser, John H. (See Madden, Samuel L., assignor.)						
Sunderland, John P., Brooklyn, N. Y. Mechanical telephone.....	376,923	Jan. 24	1746	459	42	356
Sunny, Bernard E., Chicago, Ill. Electric-light system.....	385,020	June 26	1769	457	43	1485
Sunstrom, Karl J. (See Morgan and Sunstrom.)						
Superior Drill Company. (See Patric, Charles E., assignor.)						
Surgical Dilating Syringe Company. (See Parsons, Bennard T., assignor.)						
Surles, Susan E., Chipley, Ga. Folding hat-box.....	380,364	Apr. 3	91	27, 28	43	20
Surprenant, Joseph W., and J. E. Ferguson, Astoria, Oreg. Cut-off sawing-machine.....	391,344	Oct. 16	1630	431	45	329
Surtees, Thomas, Middleport, Ohio. Wagon-jack.....	394,311	Dec. 11	860	227	45	1245
Sutcliffe, William W., New Orleans, La. Boiler-furnace.....	389,773	Sept. 18	1477	388	44	1368
Sutcliffe, William W., New Orleans, La. Bagasse-furnace.....	389,774	Sept. 18	1478	388	44	1368
Sutherland, Andrew J., Battle Creek, Mich. Fire-ladder.....	379,916	Mar. 20	1581	416	42	1281
Sutherland, Andrew J., Battle Creek, Mich. Fire-ladder.....	390,626	Oct. 2	590	156	45	119
Sutherland, Daniel A., Lynn, Mass. Presser-foot for sewing-machines.....	381,090	Apr. 10	1210	324	43	241
Sutherland, John B., Detroit, Mich. Railway.....	382,393	May 8	777	197	43	667
Sutherland, John B., Detroit, Mich. Railway.....	382,394	May 8	778	197	43	667
Sutherland, John B., assignor to C. E. Hubbell, Syracuse, N. Y. Track-instrument for railway-signals.....	390,993	Oct. 9	1126	297	45	225
Sutherland, Mosher A., New York, N. Y. Wire apron.....	389,261	Sept. 11	707	180	44	1215
Sutherland, Sylvanus S., Indianapolis, Ind. Extension-table.....	384,178	June 5	500	136	43	1218
Sutley, Frank T., Franklin, Pa. Mercury pressure-gage.....	387,663	Aug. 14	706	181	44	715
Sutley, Melvin B., Rockland, Pa. Clearing attachment for plows.....	387,962	Aug. 14	1163	315	44	803
Sutliff, Warren, Minneapolis, Minn. Heating-furnace.....	377,379	Jan. 31	2255	506	42	462
Sutphen, John H., Huron, Dak. Ter. Oil-can.....	379,738	Mar. 20	1285	343	42	1225
Sutphen, Thomas J. (See Meyer and Sutphen.)						
Sutro, Emil, et al. (See Chester, Elijah G., assignor.)						
Sutro, Emil, Brooklyn, N. Y. Stocking.....	379,831	Mar. 20	1440	382	42	1255
Sutro, Ludwig. (See Appleton, Charles J., assignor.)						
Sutro, Paul E., et al. (See Chester, Elijah G., assignor.)						
Sutton, Benjamin F., Brooklyn, N. Y. Syringe.....	383,257	May 22	2062	541	43	937
Sutton, Charles E., Richmond, Ohio. Horse-power.....	393,794	Dec. 4	85	24	45	1089

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Sutton, Columbus P., assignor of one-half to A. G. Exum and F. M. Parish, Sharon, Tenn. Plow.....	376,790	Jan. 24	1559	409	42	321
Sutton, Eugene S., Snohomish, Wash. Ter. Clothes-drier.....	384,179	June 5	501	137	43	1218
Sutton, George L., assignor of one-half to S. S. White, Creston, Iowa. Button.....	389,420	Sept. 11	944	247	44	1260
Sutton, Henry, Ballarat, Victoria. Converting a photographic image on a gelatine surface into a relief or intaglio.....	381,091	Apr. 10	1210	.....	43	243
Sutton, Henry M. (See Crowds and Sutton.)						
Sutton, Hull G., et al. (See McKinney, Robert, assignor.)						
Sutton, Jasper G. (See Green and Sutton.)						
Sutton, John W., New York, N. Y. Machine for plucking furs.....	383,258	May 22	2063	{ 541 542 }	43	937
Sutton, Martha E. (See Green and Sutton, assignors.)						
Sutton, William, assignor to La Clede Car Company, St. Louis, Mo. Reversible car-seat.....	389,174	Sept. 4	571	144	44	1177
Sutton, William, assignor to La Clede Car Company, St. Louis, Mo. Body-bearing for car-trucks.....	389,175	Sept. 4	571	{ 144 145 }	44	1177
Svensson, Claes A., assignor of one-half to W. W. Oliver, Buffalo, N. Y. Mallet.....	378,632	Feb. 28	1922	509	42	896
Swab, Allen, Elizabethtown, Pa. Baling-press.....	392,081	Oct. 30	2683	730	45	537
Swabacker, Isadore. (See Kahler, William, assignor.)						
Swadkins, Alfred. (See Jones, George, assignor.)						
Swafford, Levi W., and C. A. Burns; said Burns assignor to A. O. Hardenstein, Vicksburg, Miss. Toilet jar commode.....	384,218	June 5	556	153	43	1229
Swager, William. (See Shanklin and Swager.)						
Swager, William R. (See Shanklin and Swager.)						
Swain, John M., assignor of one-half to H. E. Little, Bloomingdale, Ind. Car-brake.....	379,548	Mar. 13	997	267	42	1162
Swain, Charles M., et al. (See Frey, Franklin, assignor.)						
Swain, Hadwen, San Francisco, Cal. Photographic camera.....	384,940	June 19	1635	425	43	1448
Swain, Hadwen, San Francisco, Cal. Ink-fountain for printing-presses.....	390,994	Oct. 9	2128	298	45	926
Swan, George E. (See Munger, Ernest A., assignor.)						
Swan, Henry C., Oshkosh, Wis. Vehicle-spring.....	377,817	Feb. 14	733	185	42	649
Swan, Henry C., Oshkosh, Wis. Vehicle-spring.....	377,818	Feb. 14	734	186	42	649
Swan, Henry C., Oshkosh, Wis. Gear-iron for vehicles.....	381,181	Apr. 17	1338	357	41	276
Swan, Henry C., Oshkosh, Wis. Vehicle-gear.....	388,360	Aug. 21	1946	490	44	940
Swan, Henry C., Oshkosh, Wis. Vehicle.....	391,493	Oct. 23	1843	493	45	378
Swan, Henry C., Oshkosh, Wis. Vehicle-spring.....	393,795	Dec. 4	86	24	45	1089
Swan, Henry C., Oshkosh, Wis. Vehicle-spring.....	393,796	Dec. 4	87	25	45	1089
Swan, James, Seymour, Conn. Machine for grooving bit-blanks.....	381,092	Apr. 10	1211	324	43	243
Swan, James, Seymour, Conn. Draw-shave.....	386,903	July 31	2341	615	44	486
Swan, James, Seymour, Conn. Machine for cutting floor-lips and spurs on augers and bits.....	387,188	July 31	2763	723	44	563
Swan, Thomas B., Atlantic, Iowa. Device for feeding and watering hogs.....	376,489	Jan. 17	1087	285	42	223
Swan, William B., Seymour, Conn. Draw-shave.....	386,855	July 31	2270	598	44	473
Swan, William L., Lansing, Mich. Burglar-alarm.....	382,669	May 8	1203	312	43	750
Swank, Irwin, Paris, Ill. Head-block for saw-mills.....	383,600	May 29	2567	680	43	1038
Swank, Israel M., Dayton, Ohio, assignor to S. B. Rittenhouse, Liberty Mills, Ind. Broadcast sower.....	386,416	July 17	1600	420	44	330
Swank, Julia E., et al. (See Pulliam, Luther, assignor.)						
Swann, John, et al. (See Ethridge, Martin V. B., assignor.)						
Swanson, Alexander, Livingston, Mont. Ter. Gearing for operating pumps.....	395,298	Dec. 25	2442	628	45	1566
Swart, Lester D., Auburn, N. Y. Spring-tooth harrow.....	377,053	Jan. 31	1925	506	42	398
Swarthout, James J., Stone's Prairie, Ill. Gate roller and hinge.....	382,844	May 15	1435	377	43	806
Swarts, Henry J., assignor of one-half to J. W. Dart, Detroit, Mich. Electrical hand-cord tip.....	380,829	Apr. 10	787	215	43	165
Swartz, Augustus B., et al. (See Steel, Robert, assignor.)						
Swartz, Clinton T., El Paso, Ill. Hedge-trimmer.....	376,054	Jan. 3	459	{ 123 124 }	42	53
Swartzwelder, Harrison, et al. (See Allfree, James B., assignor.)						
Swasey, George R. (See Pearson, William E., assignor.)						
Sweaner, George, Kingston, N. Mex. Ter. Separating metals from quartz or gangue.....	386,504	July 24	1735	457	44	365
Sweaner, George, Kingston, N. Mex. Ter. Separating gold from quartz or gangue.....	394,225	Dec. 11	726	.....	45	1218
Swearingen, Columbus A., Lampasas, Tex. Cultivator.....	387,751	Aug. 14	839	216	44	739
Sweeder, August M., assignor of one-half to A. Uddenberg, Marquette, Mich. Machine for making horseshoes.....	386,904	July 31	2342	{ 615 616 }	44	466
Sweeney, David H., Fitchburg, Mass. Fire-escape.....	378,529	Feb. 28	1777	469	42	867
Sweeney, Dominic F. (See Carr, Joseph J., assignor.)						
Sweeney, Peter, New York, N. Y. Dust-guard for car-axle boxes.....	379,524	Mar. 13	965	260	42	1155
Sweet, Alonzo, Ferndale, Cal. Harness for kicking cows.....	387,326	Aug. 7	191	50	44	608
Sweet & Clark Manufacturing Company. (See McPherson, Henry, assignor.)						
Sweet, Daniel F., assignor to M. W. Bates, Grand Rapids, Mich. Electric motor.....	395,299	Dec. 25	2443	628	45	1567
Sweet, George, Dansville, N. Y. Harrow-tooth.....	386,094	July 10	1121	299	44	227
Sweet, Hannibal L., Fond du Lac, Wis. Buckboard.....	394,519	Dec. 11	1158	301	45	1300
Sweet, Ira C. N., Sandwich, Ill. Lift-pump.....	391,435	Oct. 23	1760	471	45	360
Sweet, Lartine, Leoni, Ill. Vehicle-shaft support.....	392,295	Nov. 6	169	44	45	626
Sweet, Orange M., Silver Creek, assignor to Empire Manufacturing Company, Forrestville, N. Y. Step-ladder.....	388,599	Aug. 28	2119	577	44	1007
Sweet, William A., Syracuse, N. Y. Wire nail.....	376,791	Jan. 24	1560	409	42	321
Sweet, William A., Syracuse, N. Y. Making wire.....	383,328	May 22	2159	570	43	954
Sweet, William A., Syracuse, N. Y. Elliptic spring.....	383,329	May 22	2159	570	43	954
Sweet, George C., assignor to W. A. Aiken, Norwich, Conn. Adjustable joint.....	384,297	June 12	685	182	43	1261
Sweigard, Emanuel W., Oberlin, Pa. Camera.....	393,729	Nov. 27	2282	599	45	1064
Swellie, Charles F., Mittineague, Mass. Lifting-jack.....	393,527	Nov. 27	1988	519	45	1006
Swem Automatic Switch Company. (See Swem, James M., assignor.)						
Swem, James M., assignor to Swem Automatic Switch Company, Denver, Colo. Automatic switch for railways.....	384,651	June 19	1309	319	43	1367
Swem, James M., assignor to Swem Automatic Switch Company, Denver, Colo. Mechanism for operating railway-switches.....	390,716	Oct. 9	721	190	45	151
Swenson, W. H. H. (See Reardon, H. B., assignor.)						
Swett, Sullivan C., Washington, D. C. Show stand or case.....	379,139	Mar. 6	401	113	42	1041
Swift, Benjamin, assignor of one-half to B. C. Smith, Brooklyn, N. Y. Polishing-iron.....	390,817	Oct. 9	863	228	45	176
Swift, D. Wheeler. (See Swift, Henry D. and D. W.)						
Swift, Henry D. and D. W., assignors, by mesne assignments, to Whitcomb Envelope Company, Worcester, Mass. Machinery for feeding sheets of paper.....	386,440	July 17	1631	{ 429 430 }	44	337
Swift, Orrin W., New Haven, Conn. Coach-lamp.....	383,080	May 15	1796	465	43	875
Swift, Orrin W., New Haven, Conn. Die for shaping sheet metal.....	383,081	May 15	1797	465	43	875
Swift, R. K., assignor of two-thirds to J. J. A. Zeller and L. E. Phelps, Rock Falls, Ill. Disk cultivator.....	379,295	Mar. 13	628	172	42	1091

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drawg.	Vol.	Page.
Swindell, John C. (See Swindell, William and J. C.)						
Swindell, William and J. C., Allegheny, Pa. Regenerative furnace.....	389,671	Sept. 18	1337	{ 350 351 }	{ 44 }	1339
Swinscoe, Charles. (See Scarles, Benjamin, assignor.)						
Switzer, Albert, Grenfell, North-West Territory, Canada. Car-coupling .....	386,505	July 24	1735	458	44	365
Switzer, Byron B., assignor to Crane Bros. Manufacturing Company, Chicago, Ill. Collaps- ing tap .....	378,380	Feb. 21	1554	406	42	814
Switzer, Leroy, Chicago, Ill., assignor to R. Saner, Baltimore, Md. Machine for polishing rods .....	386,792	July 24	2142	{ 562 563 }	{ 44 }	411
Swope, Frederick E., et al. (See Myers, William R., assignor.)						
Sword, Charles D. (See Sword, Porter L. and C. D.)						
Sword, Fanny D., et al. (See Sword, Porter L. and C. D., assignors.)						
Sword, James B., Philadelphia, Pa. Device for hanging pictures .....	394,144	Dec. 4	595	160	45	1185
Sword, Porter L. and C. D., assignors to R. A. and F. D. Sword, Cleveland, Ohio. Hack- truck .....	380,062	Mar. 27	1799	{ 480 481 }	{ 42 }	1334
Sword, Rachel A., et al. (See Sword, Porter L. and C. D., assignors.)						
Syester, William, Asherville, Ind. Weather-strip .....	383,837	May 29	2941	{ 777 778 }	{ 43 }	1112
Sykes, Ezra, and E. Wilkinson, Huddersfield, county of York, England. Toothed roller for machinery for opening, &c., fibrous substances .....	387,377	Aug. 7	271	68	44	624
Sykes, Squire. (See Sykes, William and S.)						
Sykes, William and S., Buffalo, N. Y. Sand-molding machine .....	380,300	Mar. 27	2120	567	42	1398
Sykes, William L., St. Mary's, Pa. Locomotive .....	387,266	Aug. 7	97	24	44	591
Sylvén, Walfrid T., Washington, D. C. Stern-post and stern-frame for steamships .....	382,014	May 1	194	50	43	550
Sylvester & Co., C. F. (See Rooney, Patrick, assignor.)						
Sylvester, Fred L., assignor to W. A. Sylvester, Chelsea, Mass. Piston water-meter .....	389,262	Sept. 11	709	181	44	1215
Sylvester, W. Allen. (See Sylvester, Fred L., assignor.)						
Symington, James, et al. (See Pickles, James D., assignor.)						
Symington, John. (See Rumble, Symington, and Stroug.)						
Symmes, Frederick W., George's Station, S. C. Cotton-planter .....	381,964	May 1	94	23	43	532
Symmes, John A. and L. R., Sherbrooke, Quebec, Canada. Hay or grain cock weather- shield .....	388,795	Aug. 28	2429	650	44	1059
Symmes, Luther R. (See Symmes, J. A. and L. R.)						
Symonds, Herbert, St. Louis, assignor of one-half to C. D. Moody, Webster Groves, Mo. Cornice-brake .....	394,145	Dec. 4	597	160	45	1186
Symonds, John L., Detroit, Mich. Fence .....	390,995	Oct. 9	1129	298	45	226
Symons, James, assignor of two-thirds to J. B. Sampson, Ilse, and J. N. Palmer, Denver, Colo. Hydraulic ore-sizer .....	390,717	Oct. 9	723	190	45	151
Synchronous Time Company. (See Scales, William S., assignor.)						
Sypher, Abraham J., Iron Mountain, Mo. Steam rock-drill .....	389,775	Sept. 18	1480	{ 389 390 }	{ 44 }	1369
Taber, Albert W., New Bedford, Mass. Die for making twist-drills .....	380,146	Mar. 27	1917	{ 511 512 }	{ 42 }	1357
Tabor, Byron D., Wilson, N. Y. Apple paring, coring, and slicing machine .....	383,922	June 5	117	{ 35 36 }	{ 43 }	1143
Taber, Frederic. (See McHugh, Hugh, assignor.)						
Taber, Freeman A. (See Sherburne and Taber.)						
Taber, Loyal C., Syracuse, assignor to W. Van Valkenburgh, C. A. Hatch, C. R. Mead, V. A. Lacey, and E. F. Haskell, Oneida, N. Y. Drill-chuck .....	389,721	Sept. 18	1412	368	44	1354
Tacey, John R., Winnipeg, Manitoba, Canada. Heat-radiator .....	395,013	Dec. 25	1998	515	45	1484
Tachon, Claude, Charlien, Loire, France, assignor to H. Spahn, New York, N. Y., and E. G. Landru, Union, N. J. Machine for finishing and polishing textile fabrics .....	376,993	Jan. 21	1835	{ 483 484 }	{ 42 }	373
Tachou, Claude, Charlien, Loire, France, assignor to H. Spahn, New York, N. Y., and E. G. Landru, Union, N. J. Machine for finishing and polishing textile fabrics .....	376,994	Jan. 24	1838	{ 483 484 }	{ 42 }	374
Taft, Edward L., and C. L. Jones, assignors to Heywood Brothers & Co., Gardner, Mass. Rattan-measuring machine .....	383,197	May 22	1965	{ 515 516 }	{ 43 }	918
Taft, George F., Boston, Mass. Electric burglar-alarm .....	382,441	May 8	853	218	43	681
Taft, George W., Kennett Square, Pa. Machine for making, repairing, and clearing roads. agricultural machines, and similar purposes .....	380,954	Apr. 10	986	261	43	201
Taft, George W., Kennett Square, Pa. Pole-attaching axle-plate for wheeled scrapers, agricultural machines, and similar purposes .....	382,015	May 1	196	50	43	550
Taft, Joseph W. (See Durkee, George B., assignor.)						
Tag, William, and S. C. Smith, Philadelphia, Pa. Electric gas-lighting device and gas-cock .....	384,796	June 19	1424	373	43	1410
Tag, William, and S. C. Smith, Philadelphia, Pa. Electric gas-lighting device .....	389,421	Sept. 11	945	248	44	1260
Taggart, James M., Cleveland, Ohio. Car-platform .....	395,014	Dec. 25	1999	516	45	1484
Taicher, Adolph, Greenstreet, Wis. Wheelbarrow .....	387,327	Aug. 7	192	50	44	698
Tainter, Charles S., Washington, D. C. Graphophone .....	380,535	Apr. 3	343	98, 99	43	70
Tainter, Charles S., Washington, D. C. Graphophone .....	385,886	July 19	836	221	44	171
Tainter, Charles S., Washington, D. C. Graphophonic tablet .....	385,887	July 10	840	222	44	172
Tainter, Charles S., Washington, D. C. Machine for making paper tubes .....	388,462	Aug. 28	1954	{ 523 524 }	{ 44 }	969
Tainter, Charles S., Washington, D. C. Mounting for diaphragms for acoustical instru- ments .....	392,763	Nov. 13	866	221	45	769
Tainter, Charles S., Washington, D. C. Tablet for use in graphophones .....	393,190	Nov. 20	1479		45	896
Tainter, Charles S., Washington, D. C. Support for graphophonic tablets .....	393,191	Nov. 20	1480	386	45	896
Taintor, Charles C., Elizabeth, N. J. Saw-setting device .....	390,718	Oct. 9	724	{ 190 191 }	{ 45 }	152
Tait, Thomas, Du Bois, Pa. Automatic car-brake .....	387,019	July 31	2508	659	44	519
Talbot, Charles N., New York, N. Y. Individual signaling apparatus .....	392,832	Nov. 13	975	{ 250 251 }	{ 45 }	789
Talbot, Edgar F. (See Talbot, Sylvanus J., assignor.)						
Talbot, George E., Tyngsborough, assignor of one-half to L. A. Thomas, Middleborough, Mass. Temperature-regulator for incubators .....	382,779	May 15	1352	356	43	788
Talbot, Sylvanus J., assignor, by mesne assignments, of one-half to E. F. Talbot, Milford, N. H. Book-rack .....	387,267	Aug. 7	98	25	44	591
Talbot, Ezra W., assignor of one-half to A. T. Sherman, Napoleon, Ohio. Rubber dental plate Talbot, John M., et al. (See Rice, James, assignor.)	377,177	Jan. 31	2099	553	42	434
Talbot, Sylvanus J., assignor to D. Heald, Milford, and C. H. French, Nashua, N. H. Combined desk and blackboard .....	393,934	Dec. 4	293	79	45	1128
Talcott, Wait, 2d, Rockford, Ill. Electrical stop-motion for knitting-machines .....	379,832	Mar. 20	1440	383	42	1256
Talcott, Walter O., Providence, R. I. Belt-fastener .....	379,739	Mar. 29	1286	343	42	1226
Talks, Henry, Paterson, N. J. Loom .....	388,463	Aug. 28	1957	{ 524 525 }	{ 44 }	939
Tallakson, Hans. (See Prendergast and Tallakson.)						
Tallcot, William E., Croton Landing, N. Y. Brick-machine .....	389,338	Sept. 11	819	{ 209 210 }	{ 44 }	1236

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Tallcot, William E., Croton Landing, N. Y. Friction-clutch.....	389,339	Sept. 11	822	210	44	1237
Talley, Allen W., Lynchburg, Va. Nut-lock.....	379,036	Mar. 6	257	73	42	1014
Talley, James, assignor to S. E. Talley, Denver, Colo. Ore-separator.....	388,464	Aug. 28	1958	525	44	970
Talley, Sarah E. (See Talley, James, assignor.)						
Tallmadge, Hiram P., Boston, Mass. Grate.....	376,170	Jan. 10	637	170	42	133
Tallmadge, Hiram P., Boston, Mass. Grate.....	379,740	Mar. 20	1288	{ 343 } { 344 }	42	1226
Tallman, Frank G., Beaver Falls, Pa. Jar-clamp.....	384,099	June 5	374	105	43	1192
Talmadge, Joseph H., Cortland, N. Y. Two-wheeled vehicle.....	392,237	Nov. 6	87	21	45	611
Tangye, John H., Soho, and W. Johnson, Jr., Moxley, county of Stafford, England. Cut-off mechanism for slide-valves.....	380,955	Apr. 10	988	{ 261 } { 262 }	43	201
Tankersley, Ewing D. (See Hyatt and Tankersley.)						
Tanner Anti Friction Wheel Company. (See Tanner, Samuel W., assignor.)						
Tanner, Ernest, Baltimore, Md. Remedy for blood-poisoning.....	389,422	Sept. 11	945	.....	44	1260
Tanner, Oscar A., Jersey City, N. J. Artificial stone.....	380,830	Apr. 10	788	.....	43	165
Tanner, Samuel W., New York, N. Y., assignor to Tanner Anti Friction Wheel Company, of Illinois. Car-wheel.....	394,312	Dec. 11	861	228	45	1245
Taper Sleeve Pulley Works. (See Moomy, Joseph G., assignor.)						
Tapley, Jesse F., New York, N. Y. Binding cards.....	391,988	Oct. 30	2545	688	45	530
Tapley Machine Company. (See Addy, Charles J., assignor.)						
Taplin, Alvin, Forestville, Conn. Hinged cover for molasses-cups.....	387,826	Aug. 14	941	244	44	760
Tarbell, Wendell P., Milford, N. H. Clamp.....	386,279	July 17	1402	369	44	287
Tarbox, David N., Cedarville, Ohio. Car-coupling.....	390,411	Oct. 2	300	79	45	64
Tarbox, George O., et al. (See Taylor, Eugene H., assignor.)						
Tardy, Jules H., Glencoe, Minn. Slaughter-house hoist.....	385,969	July 10	934	248	44	191
Tarrer, Oliver G., Burke County, Ga. Cotton-seed planter.....	391,867	Oct. 30	2369	643	45	495
Tasker, Stephen P. M. (See Wendell, Isaac P., assignor.)						
Tasker, Stephen P. M., Philadelphia, Pa. Roller-mandrel.....	382,016	May 1	197	51, 52	43	550
Tasker, Stephen P. M., Philadelphia, Pa. Rolling-mill for making tubes.....	382,017	May 1	202	53	43	551
Tate, Hugh J., assignor of one-half to J. K. Proctor, Philadelphia, Pa. Equalizing device for cars.....	387,827	Aug. 14	942	244	44	761
Tate, Joseph W., and B. F. Dixon, Mineola, Mo. Fence-post or pile driving machine.....	391,823	Oct. 30	2307	{ 625 } { 626 }	45	483
Tate, William E., Weatherford, Tex. Folding coop.....	377,650	Feb. 7	454	116	42	581
Tatham, John, Rochdale, county of Lancaster, England. Ring and traveler for spinning-machines, &c.....	377,871	Feb. 14	802	205	42	663
Tatman, John C., Mount Vernon, Dak. Ter. Guard-rail for vehicle-wheels.....	375,963	Jan. 3	324	87	42	67
Tatman, Oliver, and J. Byar, Augusta, Ky. Weather-strip.....	382,780	May 15	1355	356	43	788
Tatum & Bowen. (See Roe, Alpheus E., assignor.)						
Tatum, Charles A., assignor to Whitall, Tatum & Co., New York, N. Y. Bottle-stopper holder.....	389,263	Sept. 11	711	181	44	1215
Taylor, Abraham B., Cincinnati, Ohio. Grain-car door.....	385,021	June 26	1770	458	43	1486
Taylor, Alfred, Bridgeport, Conn. Bustle.....	377,724	Feb. 7	557	142	42	599
Taylor, Amos B., and J. P. Tirrell, Boston, assignors to W. S. Lamson, Lowell, Mass. Buffer and catch for cash-cars.....	393,029	Nov. 20	1273	330	45	856
Taylor, Arthur, assignor of one-half to W. Stone, Toronto, Ontario, Canada. Weighing-scale.....	387,931	Aug. 14	1118	{ 297 } { 298 }	44	794
Taylor & Boggis Foundry Company. (See Gordon, Fred E., assignor.)						
Taylor, Charles, R. I. Murchison, and G. Sharpe, Melbourne, Victoria. Composition for preserving timber, &c.....	391,209	Oct. 16	1447	.....	45	295
Taylor, Charles A., Chicago, Ill., assignor to J. H. Sessions, Bristol, Conn. Trunk-fixture.....	389,118	Sept. 4	479	123	44	1162
Taylor, Charles A., Chicago, Ill., assignor to J. H. Sessions, Bristol, Conn. Trunk-fixture.....	389,119	Sept. 4	481	123	44	1162
Taylor, Charles W., and A. M. Wickens, assignors of one-third to J. Watt, Toronto, Ontario, Canada. Adjustable expansion-spool for paper-rolls.....	390,719	Oct. 9	726	191	45	152
Taylor, Christopher C., Appleton, Wis. Water-wheel.....	379,741	Mar. 20	1289	344	42	1226
Taylor, Clarence W., Janesville, Wis. Device for filing away printed clippings, &c.....	393,455	Nov. 27	1865	491	45	981
Taylor, Cyrus, Denver, Colo. Heating railway-cars.....	383,360	May 22	2322	591	43	967
Taylor, Edmund R., North Plainfield, N. J. Carpet-fastener.....	390,720	Oct. 9	727	191	45	152
Taylor, Edward T., Oakland, Cal. Cash register and indicator.....	380,831	Apr. 10	788	{ 215 } { 216 }	43	165
Taylor, Emzy. (See Kincaid, James K., assignor.)						
Taylor, Eugene H., Lynn, assignor to American Shoe Tip Company, Boston, Mass. Machine for attaching buttons.....	385,734	July 10	599	135	44	124
Taylor, Eugene H., Lynn, assignor to American Shoe Tip Company, Boston, Mass. Button-setting tool.....	390,818	Oct. 9	863	229	45	177
Taylor, Eugene H., Lynn, assignor to American Shoe Tip Company, Boston, Mass. Button-setting machine.....	393,730	Nov. 27	2235	599	45	1064
Taylor, Eugene H., Lynn, assignor to American Shoe Tip Company, Boston, Mass. Button-setting machine.....	394,546	Dec. 11	1206	313	45	1309
Taylor, Eugene H., Lynn, assignor to Ross Heel Company, Easton, E. S. Mansfield, and G. O. Tarbox, Lynn, Mass. Heel-stiffening machine.....	392,975	Nov. 13	1174	305	45	829
Taylor, Franklin, Wilmington, Del. Spool.....	391,566	Oct. 23	1934	522	45	399
Taylor, Frederic E., Birmingham, county of Warwick, England. Stocking-suspender clip.....	385,330	June 26	2252	576	43	1580
Taylor, Frederick, Lowell, Mass. Coat and hat hook.....	384,001	June 5	235	69	43	1166
Taylor, Frederick G., Cranston, R. I. Car-brake.....	366,940	July 31	2396	630	44	497
Taylor, Frederick W., Philadelphia, Pa. Feeding the support of a metal-cutting tool.....	387,121	July 31	2649	{ 697 } { 698 }	44	546
Taylor, George and J. H., Nottingham, county of Nottingham, England, assignors to A. E. Kursheedt, New York, N. Y. Machine for ornamenting strips of fabric.....	376,995	Jan. 24	1840	{ 485 } { 486 } { 487 }	42	374
Taylor, George B., Birmingham, England. Machine-vise.....	381,890	Apr. 24	2391	622	43	500
Taylor, George R., Louisville, Ky., and W. Heckert, Yonkers, N. Y. Suspended cable and electric railway.....	381,862	Apr. 24	2350	609	43	491
Taylor, H. E., et al. (See Taylor, Miles D., assignor.)						
Taylor, Harrison H., Detroit, Mich. Nut-drilling machine.....	391,824	Oct. 30	2309	626	45	483
Taylor, Harrison H., assignor to Detroit Steam Radiator Company, Detroit, Mich. Machine for assembling radiator-loops.....	380,536	Apr. 3	347	{ 99 } { 100 }	43	71
Taylor, Harrison H., assignor of one-half to G. Thrall, Detroit, Mich. Swaging and compressing machine.....	391,825	Oct. 30	2311	627	45	484
Taylor, Hilbert E., Bloomington, assignor of one-half to M. D. Taylor, Janesville, Wis. Machine for turning irregular forms.....	384,002	June 5	236	69	43	1167
Taylor, Israel B., Boston, Mass. Reed-organ.....	382,018	May 1	208	54, 55	43	552
Taylor, James. (See Neilson and Taylor.)						
Taylor, James H. (See Taylor, George and J. H.)						
Taylor, James H., Westfield, Mass. Churn-cover.....	380,832	Apr. 10	791	216	43	165



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Taylor, James S., <i>et al.</i> (See Lyon and Moore, assignors.)						
Taylor, James S., Danbury, Conn. Hat-sizing machine	393,866	Dec. 4	199	51	45	1109
Taylor, James W. P., assignor of one-third to L. B. Taylor, Washington, D. C. Valve-gear	390,819	Oct. 9	865	229	45	177
Taylor, John. (See Dowson and Taylor.)						
Taylor, John M., assignor of one-half to A. D. Wilson, Watson, Ill. Baling-press	379,185	Mar. 6	451	127	42	1052
Taylor, John W., Pittsborough, N. C. Steam-regulator	384,727	June 19	1327	346	43	1389
Taylor, Joseph C., <i>et al.</i> (See MacFarlane, John, assignor.)						
Taylor, Joseph M. (See Ethridge, Frank N., assignor.)						
Taylor, Lewis B. (See Taylor, James W. P., assignor.)						
Taylor Metallic Railway Tie Company. (See Hunter, Rudolph M., assignor.)						
Taylor, Miles D. (See Taylor, Hilbert E., assignor.)						
Taylor, Miles D., assignor of three-fourths to J. Sally, F. Vandewater, and H. E. Taylor, Janesville, Wis. Carriage-top	381,219	June 5	557	153	43	1229
Taylor, Nelson. (See McGovern, Bernard, assignor.)						
Taylor & Son, A., <i>et al.</i> (See Goodyear, Robert B., assignor.)						
Taylor, Thomas J., Howell, Tenn. Stirrup	385,150	June 26	1969	504	43	1525
Taylor, Thomas P. (See Galvin, James, assignor.)						
Taylor, Thomas P. (See Williamson, Samuel S., assignor.)						
Taylor, Thomas P., Bridgeport, Conn. Bustle	376,272	Jan. 10	773	295	42	159
Taylor, Walter A., <i>et al.</i> (See Flowers, Martin L., assignor.)						
Taylor, Walter A., New Orleans, La. Back-pressure valve	379,880	Mar. 20	1531	401	42	1272
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	378,267	Feb. 21	1393	365	42	783
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	378,268	Feb. 21	1394	366	42	783
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	380,537	Apr. 3	319	100	43	72
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	381,293	Apr. 17	1192	402 403	43	307
Taylor, Warren H., assignor to Yale & Towne Manufacturing Company, Stamford, Conn. Lock	391,826	Oct. 30	2313	627	45	484
Taylor, Wesley, Somerville, Mass. Blacking-box holder	384,338	June 12	751	197	43	1272
Taylor, William, and C. G. Saalfrank, Providence, R. I. Weft-stop motion for looms	393,955	Dec. 4	294	79	45	1128
Taylor, William A., Brooklyn, N. Y. Pen-holder	387,378	Aug. 7	272	69	44	634
Taylor, William H., Hampton, Ontario, Canada. Loom-temple	383,501	May 29	2437	647	43	1012
Taylor, William H., Hampton, assignor of two-thirds to J. Maynard and H. Baskerville, Bowmanville, Ontario, Canada. Loom-temple	379,917	Mar. 20	1582	416	42	1281
Taylor, William J., Chester, N. J. Metallurgical furnace	380,147	Mar. 27	1918	512	42	1357
Taylor, William J., Chester, N. J. Treating and calcining iron ores	380,229	Mar. 27	2029	542	42	1380
Taylor, William M., <i>et al.</i> (See Shepherd, Lewis T., assignor.)						
Taylor, William R., <i>et al.</i> (See Flowers, Martin L., assignor.)						
Tea, William A., Clyde, Ohio. Wire-cloth holder	381,294	Apr. 17	1494	403	43	307
Teaff, Matthew L., Dennison, Ohio. Stove for cars, steamboats, &c.	394,795	Dec. 18	1638	429	45	1408
Teakles, Alonzo T., Roxbury, Mass. Horse-detaching device	387,664	Aug. 14	707	182	44	715
Teal, Daniel E., Oneida Castle, N. Y. Hand-cart	384,402	June 12	843	219 220	43	1289
Teamer, William H. B. (See Muckle and Teamer.)						
Teare, Thomas R., <i>et al.</i> (See Bourke, Thomas H., assignor.)						
Teare, William H., <i>et al.</i> (See Bourke, Thomas H., assignor.)						
Tebbetts, Charles F., Fitchburg, Mass. Device for rolling metallic bodies to spheroidal forms	375,783	Jan. 3	85	26	42	21
Tebbetts, Charles F., Fitchburg, Mass., assignor to Tebbetts Rolled Forging and Machine Company, Kittery, Me. Machine for rolling metal articles to form	384,878	June 19	1559	405	43	1433
Tebbetts Rolled Forging and Machine Company. (See Tebbetts, Charles F., assignor.)						
Tebbau, William H., and M. N. De Long, assignors of one-fourth to J. F. Bentz, Syracuse, N. Y. Tube-expander	386,728	July 24	2044	539	44	423
Tecktonius, Emil C., Racine, Wis. Split pulley	393,936	Dec. 4	295	80	45	1129
Tedder, Louis, near Alvord, Tex. Corn and cotton planter	382,569	May 8	1051	268	43	720
Teed, Edgar G., Brooklyn, N. Y. Grate for refuse-burners	377,651	Feb. 7	456	117	42	581
Teed, Ralph L., assignor of one-half to A. McGuire, Chicago, Ill. Hydraulic valve	379,617	Mar. 20	1109	275	42	1190
Teed, Ralph L., assignor of one-half to A. McGuire, Chicago, Ill. Elevator-brake	3-0,465	Apr. 3	233	63	43	47
Teegardin, George E., St. Paul's, Ohio. Flood-gate	387,020	July 31	2508	659	44	520
Teepie, James N., <i>et al.</i> (See Martin, J. Albert, assignor.)						
Teeter, Martin V. (See Barber, Arthur J., assignor.)						
Teetzal, Charles W., Benton Harbor, Mich. Holdback for vehicles	393,797	Dec. 4	89	25	45	1090
Tegtmeier, William O., Chicago, Ill. Box-corner fastening	395,015	Dec. 25	2000	516	45	1485
Teichmann, Richard, Brooklyn, N. Y. Rotary toy	381,403	June 12	844	220	43	1290
Teichmann, Richard, Brooklyn, N. Y. Burglar-alarm	391,724	Oct. 23	2149	581	45	441
Teideman, George, Borough Road, county of Surrey, England. Liquid-meter	390,918	Oct. 9	1007	263 264 265	45	203
Teipel, Benjamin, assignor to J. L. Winston, Covington, Ky., and E. H. Spear, Toledo, Ohio. Target-trap	387,268	Aug. 7	99	25	44	591
Telemeter Company of New York. (See Dibble, Fernando J., assignor.)						
Telpheage Electric Railway Company. (See Speed, Francis M., assignor.)						
Temple, Ansel F., Muskegon, Mich. Egg-preserver	377,585	Feb. 7	346	89,90	42	562
Temple, Charles E., and F. T. Bolton, Terre Haute, Ind. Button-setting machine	392,647	Nov. 13	696	175	45	734
Temple, Fred F., <i>et al.</i> (See Carlson, Charles A., assignor.)						
Temple, Fred F., <i>et al.</i> (See Class, William F., assignor.)						
Templeton, David W., <i>et al.</i> (See Clifford, William P., assignor.)						
Templin, Joseph H. (See Jordan and Templin.)						
Templin, William S., Rossville, Kans. Cultivator	385,646	July 3	472	122	44	92
Templon, James S. (See Pritchard and Templon.)						
Ten Broeck, Theodore R., assignor to Galvano-Faradic Manufacturing Company, New York, N. Y. Electro-medical appliance	377,872	Feb. 14	803	205	42	663
Ten Broeck, Van Rensselaer, Jersey City, N. J., assignor of one-half to T. S. Hewke, New York, N. Y. Clothes-drier	392,374	Nov. 6	296	74	45	651
Ten Eyck, Henry B., Johostown, N. Y. Lace-fastening	392,375	Nov. 6	296	75	45	651
Ten Eyck, Maning F., Paterson, N. J. Car-coupling	386,224	July 17	1324	350	41	273
Teuer, Commodore P., Hillsborough, Ohio. Shaft-support	376,017	Jan. 3	405	107	42	81
Tenney, Charles L., assignor of one-half to A. Sawyer, Fitchburg, Mass. Counter-stiff-ener machine	380,464	Apr. 3	232	63	43	47
Tenney, Cornelius, New York, N. Y. Saw-frame	390,996	Oct. 9	1130	299	45	226

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Tenney, George, Lincoln, Kans. Tightener for fence-wires.....	286,666	July 24	1963	518	44	406
Tennison, James B., Mount Pleasant, Tex. Attachment for plows.....	387,699	Aug. 14	764	195	44	725
Tepoorten, Charles A. (See Boegen and Tepoorten.)						
Terrell, David J., Kokomo, Ind. Vaginal syringe.....	388,510	Aug. 28	2017	542	44	981
Terrell, George E., Ansonia, Conn. Carbon battery.....	378,943	Mar. 6	117	34	42	989
Terrell, Isaac H., New York, N. Y. Bench-stop.....	384,405	June 12	849	221	43	1290
Terrell, Jephthae M. (See Harmon and Terrell.)						
Terrell, Thomas, New Court Temple, county of Middlesex, England. Bottle-stopper.....	387,379	Aug. 7	273	69	44	624
Terrill, Delancy E., assignor of one-half to J. F. Hadcock, Copenhagen, N. Y. Changeable bill of fare.....	391,765	Oct. 28	2203	505	45	453
Terrill, J. L., et al. (See Anderson, Lee, assignor.)						
Terry, Abby M., Brooklyn, N. Y. Sleeve-stay.....	380,063	Mar. 27	1800	481	42	1334
Terry, Le Grand, Horseheads, N. Y. Track-hanger.....	386,564	July 24	1827	4-2	44	3-1
Terry, Le Grand, Horseheads, N. Y. Track-hanger.....	390,412	Oct. 2	301	79	45	61
Terry, Seth A., et al. (See Harrison, Arthur W., assignor.)						
Terry, Solon M., Pittsfield, Mass. Register and recorder for revolving shafts.....	384,479	June 12	943	245	43	1309
Terstegen, Fred, Elizabeth, N. J. Seconds-setting mechanism for time-pieces.....	379,833	Mar. 20	1442	3-3	42	1256
Terstegge, Henry, New Albany, Ind. Shelf for stoves.....	389,945	Sept. 25	1746	4-2	44	1426
Terstegge, Henry, and R. H. Gohmann, New Albany, Ind. Open-front stove.....	389,612	Sept. 18	1237	323	44	1320
				321		
Teske, Charles, Hartford, Conn. Watch-case spring.....	388,157	Aug. 21	1438	399	44	874
Tesla Electric Company. (See Tesla, Nikola, assignor.)						
Tesla, Nikola, New York, N. Y. Electrical transmission of power.....	382,280	May 1	592	150	43	622
Tesla, Nikola, New York, N. Y. Electrical transmission of power.....	382,281	May 1	596	151	43	622
Tesla, Nikola, New York, N. Y. Converting and distributing electric currents.....	382,282	May 1	597	151	43	622
Tesla, Nikola, New York, N. Y., assignor of one-half to C. F. Peck, Englewood, N. J. Electro-magnetic motor.....	381,968	May 1	101	24, 25	43	534
Tesla, Nikola, New York, N. Y., assignor of one-half to C. F. Peck, Englewood, N. J. Electro-magnetic motor.....	381,969	May 1	105	25	43	534
Tesla, Nikola, New York, N. Y., assignor of one-half to C. F. Peck, Englewood, N. J. System of electrical distribution.....	381,370	May 1	107	26	43	5-4
Tesla, Nikola, New York, N. Y., assignor of one-half to C. F. Peck, Englewood, N. J. Electro-magnetic motor.....	382,279	May 1	589	149	43	622
Tesla, Nikola, New York, N. Y., assignor of one-half to C. F. Peck, Englewood, N. J. Commutator for dynamo-electric machines.....	382,845	May 15	1436	378	43	806
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. System of electrical distribution.....	390,413	Oct. 2	302	79, 80	45	64
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Dynamo-electric machine.....	390,414	Oct. 2	304	80	45	64
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Dynamo-electric machine or motor.....	390,415	Oct. 2	306	80	45	65
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Dynamo-electric machine.....	390,721	Oct. 9	728	191	45	152
Tesla, Nikola, assignor to Tesla Electric Company, New York, N. Y. Regulator for alternate-current motors.....	390,820	Oct. 9	867	229	45	177
				230		
Tetlow, James, Boston, Mass. Machine for flanging metal.....	387,665	Aug. 14	708	182	44	715
Tétrault, Amédée, St. Paul, Minn. Grain-binder.....	386,905	July 31	2345	616	44	487
Tétrault, Amédée, St. Paul, Minn. Mechanical movement.....	392,238	Nov. 6	18	21, 22	45	611
Tewksbury, Andrew J., Haverhill, Mass. Machine for ornamenting leather.....	387,269	Aug. 7	100	25	44	591
Thacher, Peter, M. H. and W. D. Morris, assignors to A. C. Calkins, trustee, Chicago, Ill. Adjustable packing for stuffing-boxes.....	382,334	May 8	683	173	43	649
Thacher, Ralph W., et al. (See Wood, William P., assignor.)						
Thackara, Swain. (See Harker, John P., assignor.)						
Thacker, Daniel W., Springfield, assignor of two-thirds to J. B. Bright and C. A. Phillips, Dayton, Ohio. Box-opener and tobacco-claw.....	394,547	Dec. 11	1207	314	45	1309
Thacker, G. W., et al. (See Carroll, Samuel C., assignor.)						
Thackston, Richard D., assignor to Safety Hatch-Door Company, St. Louis, Mo. Self-closing hatchway.....	386,366	July 17	1513	400	44	309
Thackston, Richard D., assignor to Safety Hatch-Door Company, St. Louis, Mo. Safety-lock for elevators.....	386,367	July 17	1514	401	44	309
Thaden, Herman, Atlanta, Ga. Seed-planter.....	389,776	Sept. 18	1481	390	44	1369
Thaison, John H., Chicago, Ill. Roller for producing alto-relievo ornamentation.....	380,833	Apr. 10	792	216	43	165
Thatcher, Hervey D., Potsdam, N. Y. Adjustable shelf-fastener.....	379,252	Mar. 13	5-2	156	42	1078
Thatcher, Lewis C., Chicago, Ill. Steam-generator.....	392,579	Nov. 6	587	148	45	707
Thaxter, George E., Boston, Mass. Machine for lighting and extinguishing gas.....	381,440	Apr. 17	1715	459	43	352
				460		
Thaxter, George E., Boston, Mass. Electric machine for lighting and extinguishing gas.....	392,701	Nov. 13	771	195	45	749
Thayer, Albert F., Maple Hill, Kans. Sprinkling or spraying pipe.....	388,930	Sept. 4	187	49	44	1108
Thayer, Charles W., assignor of one-half to F. H. Thayer, Collinsville, Conn. Attachment for type-writing machines.....	387,752	Aug. 14	840	217	44	739
Thayer, Corwin M. and L. N., Worcester, Mass. Lunch-pail.....	376,119	Jan. 10	552	147	42	117
Thayer, Dela, et al. (See Schrade, George, assignor.)						
Thayer, Eugene C. (See Hemans and Thayer.)						
Thayer, Frank H. (See Thayer, Charles W., assignor.)						
Thayer, Garrison C., Pawhuska, Indian Ter. Wagon-brake.....	389,777	Sept. 18	1482	390	44	1369
Thayer, Herbert S., Providence, R. I. Manufacturing buttons.....	392,376	Nov. 6	297	75	45	651
Thayer, Herbert S., Providence, R. I. Button.....	392,377	Nov. 6	299	75	45	652
Thayer, James F., Providence, R. I. Button-attaching machine.....	386,856	July 31	2271	598	44	473
Thayer, James F., Providence, R. I. Flat-pointed nail or tack.....	387,380	Aug. 7	274	70	44	624
Thayer, James F., Providence, R. I. Wood-screw.....	391,097	Oct. 16	1298	346	45	265
Thayer, James M., Randolph, Mass. Hot-water heater.....	378,633	Feb. 28	1923	509	42	896
Thayer, John C. and J. Phelan, New York, N. Y. Paddle-wheel.....	389,672	Sept. 18	1338	351	41	1339
Thayer, Leonard N. (See Thayer, Corwin M. and L. N.)						
Thayer, M. E., et al. (See Schrade, George, assignor.)						
Thayer, Russell, Philadelphia, Pa. Electrical revolving brush.....	393,192	Nov. 20	1481	386	45	896
Thayer, Winthrop, Cambridge, Mass. Marking tennis-courts, &c.....	391,660	Oct. 23	2061	558	45	425
Theisen, Eduard, Cologne, Prussia, Germany. Apparatus for condensing and cooling purposes.....	377,504	Feb. 7	241	59	42	541
				544		
				545		
				546		
Theisen, Eduard, Lindenau, near Leipsic, Saxony, Germany. Drying apparatus.....	393,594	Nov. 27	2080	544	45	1026
Thenis, Peter. (See McCarthy and Thenis.)						
Therien, Joseph H., San Francisco, Cal. Washing-machine.....	392,474	Nov. 6	442	111	45	678

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Theurer, J. Fred, Milwaukee, Wis. Device for cooling beer.....	388,742	Aug. 28	2349	633	44	1045
Thibonville, Louis E. J., Paris, France. Mechanical musical instrument.....	380,608	Apr. 3	454	128 129	43	92
Thie, Otto, and C. M. Levy, New York, N. Y. Interchangeable-initial ring.....	389,778	Sept. 18	1483	391	41	1369
Thiel, Max, Philadelphia, Pa. Shade-fixture.....	394,737	Dec. 18	1534	402	45	1377
Thiem, Edward A., Sandusky, Ohio. Doubletree.....	380,230	Mar. 27	2032	542	42	1380
Thiem, Wilhelm, Bellevue, Ky. Mechanism for operating drills.....	389,613	Sept. 18	1239	324	44	1321
Thier, Friedrich H., Königstein, Saxony, Germany. Button.....	379,742	Mar. 20	1291	344	42	1326
Thierwechter, Emery. (See Heimlich, John, assignor.)						
Thirsk, Richard, Honesdale, assignor to L. J. Dorfinger, White Mills, Pa. Feed apparatus for glass-polishing machines.....	386,417	July 17	1603	421	44	330
Thode, Carl W. F., Hamburg, Germany. Bolt.....	388,329	Aug. 21	1593	425	44	892
Thoenes, Burchard. (See Cook and Thoenes.)						
Thoenes, Burchard. (See Cook and Thoenes.) (Reissue.)						
Thomas, Abner D., Little Rock, assignor to D. H. Thomas, Pulaski, Ark. Cotton-press. (Reissue.)	10,902	Feb. 14	1080	286	42	720
Thomas, Allen E., and S. Ritty, assignors to Ohio Rake Company, Dayton, Ohio. Draft apparatus for vehicles.....	384,100	June 5	375	106	43	1193
Thomas, Ammi A., et al. (See Baldwin, William A., assignor.)						
Thomas, Amos W., Philadelphia, Pa. Bustle.....	377,652	Feb. 7	457	117	42	581
Thomas, Annie A., et al. (See Baldwin, William A., assignor.)						
Thomas, Benjamin F. (See Friend, John P., assignor.)						
Thomas, Benjamin F., Delaware, Ohio. Dash-board.....	383,601	May 29	2569	680	43	1039
Thomas, Benjamin F. and J. C., Louisa, Ky. Wicket-dam.....	382,395	May 8	779	198	43	667
Thomas, Charles G. (See Thomas, Enos M., assignor.)						
Thomas, Charles H., Hancock, Wis. Means for elevating and supporting the roofs of barracks.....	392,764	Nov. 13	867	221	45	769
Thomas, Chauncey, Boston, Mass. Carriage.....	393,937	Dec. 4	296	80, 81	45	1129
Thomas, Conrad, assignor of two-thirds to W. Windus and J. G. Jung, Baltimore, Md. Door-check.....	382,283	May 1	600	152	43	623
Thomas, Daniel H. (See Thomas, Abner D., assignor.) (Reissue.)						
Thomas, Edward B., San Francisco, Cal. Center-draft bell-bottom base-burner heating-stove.....	392,894	Nov. 13	1056	272	45	806
Thomas, Edwin E., Minneapolis, Minn. Rotary engine.....	387,606	Aug. 7	627	163	44	693
Thomas, Edwin K. (See Cowdery and Thomas.)						
Thomas, Eli L. (See Thomas, William J. and E. L.)						
Thomas, Enos M., assignor to himself and C. G. Thomas, Cherry Grove, Pa. Measuring-reel.....	379,743	Mar. 20	1292	345	42	1227
Thomas, Francis, Cincinnati, and C. H. Irwin, Martinsville, Ohio; said Thomas assignor to said Irwin. Dies for making auger-bits.....	378,408	Feb. 21	1599	420	42	823
Thomas, Frank. (See Pierce and Thomas.)						
Thomas, George. (See Staub, Emil, assignor.)						
Thomas, Horatio, Chicago, Ill., assignor to Bostedo Package and Cash Carrier Company, Atlantic, Iowa. Cash-car arrester.....	379,085	Mar. 6	326	94	42	1027
Thomas, Horatio, Chicago, Ill., assignor to Bostedo Package and Cash Carrier Company, Atlantic, Iowa. Air-cushion for cash-carriers.....	379,296	Mar. 13	639	172	42	1091
Thomas, Horatio, Chicago, Ill., assignor to Bostedo Package and Cash Carrier Company, Atlantic, Iowa. Locking and releasing mechanism for cash-carriers.....	379,618	Mar. 20	1111	295	42	1190
Thomas, Horatio, Chicago, Ill., and L. G. Bostedo, assignors to Bostedo Package and Cash Carrier Company, Atlantic, Iowa. Cash and package carrier.....	379,084	Mar. 6	322	93, 94	42	1026
Thomas, J. E. (See Heinzelman, Otto, assignor.)						
Thomas, Jacob H., Philadelphia, Pa. Poking-bar for gas-producers, &c.....	387,021	July 31	2509	659	44	520
Thomas, James H. (See Dodd and Thomas.)						
Thomas, James S. (See Tyler and Thomas.)						
Thomas, John, et al. (See Biggin, Mary, assignor.)						
Thomas, John, Cedar Rapids, Iowa. Harness-pad.....	391,661	Oct. 23	2062	558	45	425
Thomas, John, Cedar Rapids, Iowa. Harness-pad.....	391,662	Oct. 23	2063	558	45	425
Thomas, John C. (See Merrill and Thomas.)						
Thomas, John C. (See Thomas, Benjamin F. and J. C.)						
Thomas, John H. (See Young and Shertzer, assignors.)						
Thomas, John H. (See Young and Thomas.)						
Thomas, John H., Springfield, Ohio. Lawn-mower.....	375,842	Jan. 3	157	44	42	35
Thomas, John R. (See Woods and Thomas.)						
Thomas, John W., Tyrone, Pa. Railway-car.....	380,705	Apr. 10	601	165 166	43	129
Thomas, Joseph D., South Framingham, Mass. Rubber boot.....	382,498	May 8	936	237	43	697
Thomas, Joseph D., South Framingham, Mass. Machine for covering or insulating wire.....	384,401	June 12	845	220	43	1290
Thomas, Joseph D., New York, N. Y. Insulated wire.....	382,781	May 15	1356	356	43	789
Thomas, Josephine. (See Dodd and Thomas, assignors.)						
Thomas, Levi H., Chicago, Ill. Necktie-fastener.....	393,085	Nov. 20	1331	347	45	806
Thomas, Lyman A. (See Talbot, George E., assignor.)						
Thomas Manufacturing Company. (See Hiser, Daniel B., assignor.)						
Thomas Manufacturing Company. (See Miller, John C., assignor.)						
Thomas Manufacturing Company. (See Normand, Joseph M., assignor.)						
Thomas Manufacturing Company. (See Paxson, Charles H., assignor.)						
Thomas & Merrell. (See Merrell, Fredus R., assignor.)						
Thomas, Merton, Savona, N. Y. Handcuff.....	375,843	Jan. 3	158	44	42	35
Thomas, Merton S., and S. T. Smith, Savona, N. Y. Handcuff.....	395,016	Dec. 25	2001	516	45	1455
Thomas, Omar, North Haven, Me. Lobster-trap.....	392,296	Nov. 6	170	44	45	626
Thomas, Samuel, Catsaunqua, Pa. Apparatus for filling blast-furnaces.....	377,873	Feb. 14	805	206	42	663
Thomas, Samuel E., Brooklyn, assignor to F. Adeo & Co., New York, N. Y. Casting.....	386,941	July 31	2397	630	44	497
Thomas, Samuel E., Brooklyn, assignor to F. Adeo & Co., New York, N. Y. Pipe-connection.....	390,821	Oct. 9	869	290	45	178
Thomas, Samuel T. and W. S., Boston, Mass. Finishing woven-wire fabrics.....	386,761	July 24	2091	549	44	431
Thomas, Samuel T. and W. S., Boston, Mass., assignors to American Metallic Fabric Company, Portland, Me. Loom.....	386,506	July 24	1736	458 459 460 461	44	365
Thomas, Septimus, Scranton, Pa. Mechanism for separating coal, &c.....	379,253	Mar. 13	564	157	42	1078
Thomas, Theodore B., Quincy, Mass. Spreader for hammocks.....	384,728	June 19	1328	346	43	1389
Thomas, Thomas C., assignor of one-half to G. Stringfellow, Salt Lake City, Utah Ter. Anti-dead-center crank.....	386,942	July 31	2398	630	44	497

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Thomas, William. (See Xander and Thomas.)						
Thomas, William D. (See Wilson and Thomas.)						
Thomas, William D., assignor of one-half to T. B. Atterbury, Pittsburg, Pa. Pressure regulator and cut-off	378,342	Feb. 21	1505	393	42	805
Thomas, William H., Detroit, Mich. Fine-cleaner	390,822	Oct. 9	870	230	45	178
Thomas, William J., Saucelito, Cal. Slide-valve	385,431	July 3	146	39	44	30
Thomas, William J. and E. L., Malvern, Pa. Fluid-motor	377,586	Feb. 7	348	90	42	562
Thomas, Winfield S. (See Thomas, Samuel T. and W. S.)						
Thomasson, Augustus W., and R. S. Pence, Kearney, Mo. Clover-harvester	378,184	Feb. 21	1259	332	42	758
Thompson, Adelbert L., East Avon, N. Y. Tightener and fastener for wires	381,295	Apr. 17	1494	403	43	307
Thompson, Albert R., Stone Church, Pa. Railway-car heater	385,534	July 3	304	78	44	61
Thompson, Alfred J., Fair Grange, Ill. Check-rower	387,270	Aug. 7	101	25, 26	44	592
Thompson, Andrew, assignor of one-half to J. L. Moore, Pittsburg, Pa. Apparatus for the manufacture of sheet-glass	385,735	July 10	601	155	44	124
Thompson, Andrew, assignor of two-thirds to J. T. Moore, Pittsburg, Pa. Apparatus for the manufacture of gaseous fuel	388,465	Aug. 28	1960	526	44	970
Thompson, Charles. (See Burdall and Thompson.)						
Thompson, Charles, Oswego Falls, N. Y. Car-truck	390,267	Oct. 2	97	28	45	23
Thompson, Charles, Fremont, Ohio. Fifth-wheel for vehicles	395,017	Dec. 25	2002	516	45	14-5
Thompson, Charles H., Bartow, Fla., assignor to A. E. Brown, Cleveland, Ohio. Suspended tramway	382,782	May 15	1359	357	43	789
Thompson, Charles H., assignor to Woodward Electrical Company, Detroit, Mich. Making electrodes for secondary batteries	392,573	Nov. 6	577	145	45	706
Thompson, Charles H., assignor to Woodward Electrical Company, Detroit, Mich. Electrode for secondary batteries	392,574	Nov. 6	579	146	45	706
Thompson, Charles K. (See Shay, James L., assignor.)						
Thompson, Charles M., Lexington, N. C. Plow	377,653	Feb. 7	458	118	42	581
Thompson, Colin M. (See Eaton, Asahel K., assignor.)						
Thompson, Edward P., Elizabeth, N. J. Manufacture of incandescent electric lamps	382,846	May 15	1438	378	43	806
Thompson, Edward P., Elizabeth, N. J. Manufacture of incandescent electric lamps	384,675	May 29	2678	709	43	1062
Thompson, Edward P., Elizabeth, N. J. Evacuating electric lamps	383,676	May 29	2680	709	43	1062
Thompson, Elias H., Newark, assignor of one-half to E. J. Clark and J. B. Welch, Tulare, and C. A. Sherman, Los Gatos, Cal. Steam-generator	384,941	June 19	1636	425	43	1449
Thompson, Emma, Brooklyn, N. Y. Corset	376,924	Jan. 24	1747	459	42	356
Thompson, Emma E. C., Chicago, Ill. Portable tea and coffee pot	388,600	Aug. 28	2151	577	44	1007
Thompson, George, Cleveland, Ohio. Broach	394,226	Dec. 11	726	192	45	1218
Thompson, George H., Reading, Pa. Ladder	381,656	Apr. 24	2037	533	43	432
Thompson, George H., Reading, Pa. Washing-machine	391,282	Oct. 16	1532	411	45	313
Thompson, George L., Englewood, Ill. Sash-cord fastener	381,728	Apr. 24	2142	561	43	453
Thompson, George M., Somerville, assignor to E. H. Ashcroft, Lynn, Mass. Agitator for casks or barrels	385,151	June 26	1970	504	43	1525
Thompson, George W., Sag Harbor, N. Y. Metallic railway-tie	394,738	Dec. 18	1535	402	45	13-8
Thompson, Gilbert G., Des Moines, Iowa. Pipe-cutter	377,725	Feb. 7	557	143	42	600
Thompson, Henry D., West Swaney, N. H., assignor of one-fourth to G. W. Ryer, Brooklyn, N. Y. Safety car-truck	388,743	Aug. 28	2350	633	44	1045
Thompson, Henry R. (See Wellman, Willard F., assignor.)						
Thompson, Isaac C., Andrew, Iowa. Sled-brake	384,548	June 12	1061	276	43	1330
Thompson, James, New York, N. Y. Stereotype-casting box	389,673	Sept. 18	1341	351	44	1340
Thompson, John, Holland, Mich. Brake for windmills	379,342	Mar. 13	693	188	42	1103
Thompson, John, Chicago, Ill. Cabinet attachment for desks	393,938	Dec. 4	298	81	45	1129
Thompson, John, and S. B. Secrist; said Secrist assignor to J. Thompson & Sons, (limited), Beloit, Wis. Plow	385,216	June 26	2060	528	43	1544
Thompson, John A. (See Thompson, Stacy C., assignor.)						
Thompson, John C., administrator. (See Thompson, Nathan.)						
Thompson, John F., Newcastle, Ind. Spittoon and securing the same	376,761	Jan. 24	1498	395	42	310
Thompson, John P., Fall River, Mass. Let-off mechanism for looms	376,353	Jan. 10	886	232	42	179
Thompson, John P., Olneyville, R. I. Railway-head for cotton-cards, &c.	391,663	Oct. 23	2064	559	45	425
Thompson, John S., assignor of one-half to R. A. and J. S. Holliday, Jr., Atlanta, Ga. Combined illuminator, heater, and blow-pipe	389,264	Sept. 11	712	181	44	1215
Thompson, John W., Lebanon, N. H., assignor to H. A. Henderson, Boston, Mass. Plate or dish lifter	3-7,122	July 31	2668	698	44	547
Thompson, Joseph, and J. O. Stephens, St. Joseph, Mo. Weather-strip	384,003	June 5	240	70	43	1168
Thompson, Joseph W., Mount Pleasant, Iowa. Bucksaw-frame	390,416	Oct. 2	306	81	45	65
Thompson, Joseph W., assignor to Buckeye Engine Company, Salem, Ohio. Valve-gear	381,596	Apr. 24	1955	515	43	416
Thompson, Joseph W., assignor to Buckeye Engine Company, Salem, Ohio. Governor	3-1,597	Apr. 24	1958	516	43	416
Thompson, Joseph W., assignor of one-half to Buckeye Engine Company, Salem, Ohio. Governor	385,152	June 26	1971	504	43	1525
Thompson, Joseph W., Columbiana, assignor of one-half to Buckeye Engine Company, Salem, Ohio. Governor	385,535	July 3	305	78	44	62
Thompson, La Marcus A., Philadelphia, Pa. Car-wheel	379,254	Mar. 13	565	157	42	1078
Thompson, Nathan, deceased, Brooklyn, N. Y.; J. C. Thompson administrator. Filling and pouring nozzle	381,971	May 1	109	26	43	534
Thompson, Perley & Waite. (See Odell, Benjamin C., assignor.)						
Thompson, Richard, New York, assignor of one-half to J. S. Bushnell, Brooklyn, N. Y. Grate-bar	384,729	June 19	1329	347	43	1390
Thompson, Robert, assignor of one-half to J. Wright, Toronto, Ontario, Canada. Mechanism for operating railway-semaphores	391,989	Oct. 30	2547	689	45	530
Thompson, Robert B., Wilkinsburg, assignor to Schuette & Co., Pittsburg, Pa. Mantel	389,340	Sept. 11	823	210	44	1237
Thompson, Robert H., et al. (See Griswold, James D., assignor.)						
Thompson, Rosewell, Bridgeport, Conn. Take-up mechanism for sewing-machines	389,026	Sept. 4	322	85	44	1133
Thompson, Rosewell, Bridgeport, Conn., assignor to Morley Button Sewing Machine Company, Boston, Mass. Button-sewing machine	388,796	Aug. 28	2430	657	44	1060
Thompson, Smith, Washington, D. C. Letter-box	380,148	Mar. 27	1921	512	42	1358
Thompson & Sons, John. (See Thompson and Secrist, assignors.)						
Thompson, Stacy C., assignor of one-fourth to J. A. Thompson, Manistee, Mich. Addressing-machine	376,762	Jan. 24	1500	395	42	310
Thompson, Thomas E., Chicago, Ill. Vestibule-car	394,313	Dec. 11	862	228	45	1246
Thompson, Wallace, South Manchester, Conn. Feed-water regulator	385,387	July 3	71	20	44	15
Thompson, William, Brockton, Mass. Anvil heel-shouldering machine in the manufacture of lasts	388,744	Aug. 28	2351	634	44	1045
Thompson, William A. J., Ottumwa, Iowa. Drill for mining coal	378,481	Feb. 28	1710	451	42	853

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Thompson, William C., Minneapolis, Minn. Electric-signal transmitter.....	385,388	July 3	72	20	44	16
Thompson, William D., Bath, assignor of one-half to J. J. Donahue, Keene, N. H. Glove-fastener.....	385,331	June 26	2252	577	43	1580
Thompson, William F., Cleveland, Ohio. Duplex conductor for rolling-mills.....	391,664	Oct. 23	2665	559	45	425
Thompson, William H., Richmond, Va. Flash-light signal.....	387,932	Aug. 14	1119	298	44	795
Thompson, William N., Oxanna, Ala. Railway-frog.....	391,990	Oct. 30	2549	690	45	531
Thompson, William P., Liverpool, county of Lancaster, England. Drawing and tracing apparatus.....	388,158	Aug. 21	1501	400	44	874
Thompson, William W., Guthrie Centre, Iowa. Broom-head.....	385,217	June 26	2062	529	43	1544
Thomson, Alexander, Caintown, Ontario, Canada, assignor of one-half to J. Northup, Redwood, N. Y. Milk-strainer.....	385,582	July 3	374	97	44	74
Thomson, Cathcart, Halifax, Nova Scotia, Canada. Preserving fish.....	391,436	Oct. 23	1763		45	361
Thomson & Co., Judson L. (See Unbeheud, Jacob J., assignor.)						
Thomson Electric Welding Company. (See Thomson, Elihu, assignor.)						
Thomson, Elihu, Lynn, Mass. Apparatus for electric welding.....	375,784	Jan. 3	86	26	42	21
Thomson, Elihu, Lynn, Mass. Dynamo-electric machine or motor.....	376,120	Jan. 10	551	147	42	117
Thomson, Elihu, Lynn, Mass. Alternating-current motive and regulating device.....	377,217	Jan. 31	2164	571	42	446
Thomson, Elihu, Lynn, Mass. Electric meter.....	381,441	Apr. 17	1718	460	43	352
Thomson, Elihu, Lynn, Mass. Electro-mechanical device.....	381,442	Apr. 17	1721	461	43	352
Thomson, Elihu, Lynn, Mass. Electric meter.....	381,443	Apr. 17	1726	462	43	353
Thomson, Elihu, Lynn, Mass. Alternating-current regulator.....	382,336	May 8	688	171	43	649
Thomson, Elihu, Lynn, Mass. Electric meter.....	385,647	July 3	473	123	44	92
Thomson, Elihu, Lynn, Mass. Plug for electric transformers.....	387,123	July 31	2659	678	44	547
Thomson, Elihu, Lynn, Mass. Thermal device for varying electric resistance or currents.....	389,265	Sept. 11	713	182	44	1216
Thomson, Elihu, Lynn, Mass. Direct-welding dynamo-electric machine.....	389,779	Sept. 18	1483	391	44	1369
Thomson, Elihu, Lynn, Mass. Alternate-current dynamo.....	390,318	Oct. 2	162	45	45	36
Thomson, Elihu, Lynn, Mass. Electric potential differentiator.....	391,437	Oct. 23	1763	471	45	361
Thomson, Elihu, Lynn, Mass. Dynamo-electric machine.....	392,765	Nov. 13	868	222	45	769
Thomson, Elihu, Lynn, Mass. Electric-light pole.....	393,040	Nov. 20	1275	330	45	856
Thomson, Elihu, Lynn, Mass. Portable electric welding apparatus.....	394,892	Dec. 18	1794	465	45	1437
Thomson, Elihu, Lynn, Mass. Electric meter.....	395,018	Dec. 25	2003	517	45	1485
Thomson, Elihu, Lynn, Mass. assignor to Thomson-Houston Electric Company, of Connecticut. Alternating-current dynamo-electric machine.....	382,335	May 8	684	173	43	649
Thomson, Elihu, Lynn, assignor to Thomson Electric Welding Company, Boston, Mass. Apparatus for electric welding.....	385,022	June 26	1772	458	43	1486
Thomson, Elihu, Lynn, assignor to Thomson Electric Welding Company, Boston, Mass. Joining pipes by electricity.....	385,384	July 3	63	18, 19	44	14
Thomson, Elihu, Lynn, assignor to Thomson Electric Welding Company, Boston, Mass. Electrically welding chains and links.....	385,385	July 3	65	19	44	15
Thomson, Elihu, Lynn, assignor to Thomson Electric Welding Company, Boston, Mass. Direct electric welding-machine.....	385,386	July 3	67	19, 20	44	15
Thomson, Elihu, Lynn, assignor to Thomson Electric Welding Company, Boston, Mass. Apparatus for electric welding.....	386,441	July 17	1633	430	44	338
Thomson, George R., and J. B. Johnson, Gouverneur; said Thomson assignor, by mesne assignments, to H. A. Starbuck, White Creek, N. Y. Land-roller and seed-sower.....	390,417	Oct. 2	307	81	45	65
Thomson-Houston Electric Company. (See Lemp, Hermann, assignor.)						
Thomson-Houston Electric Company. (See Thomson, Elihu, assignor.)						
Thomson, John, Brooklyn, N. Y. Water-meter.....	387,828	Aug. 14	943	244	44	761
Thomson, John, Brooklyn, N. Y. Crank-bearing for oscillating disks.....	387,829	Aug. 14	944	245	44	761
Thomson, John, Brooklyn, N. Y. Stamping or embossing press.....	387,830	Aug. 14	945	246	44	761
Thomson, John, Brooklyn, N. Y. Disk water-meter.....	387,831	Aug. 14	949	246	44	762
Thomson, John, Brooklyn, N. Y., assignor to Colt's Patent Fire Arms Manufacturing Company, Hartford, Conn. Dwell-cam.....	378,343	Feb. 21	1507	393	42	805
Thomson, John, Brooklyn, N. Y., assignor to Colt's Patent Fire Arms Manufacturing Company, Hartford, Conn. Device for imparting combined rotary and reciprocating movement.....	378,344	Feb. 21	1508	394	42	805
Thomson, John L., Bergen Point, N. J., assignor to W. B. Devereux, Aspen, Colo., and Orford Copper Company, of New Jersey. Apparatus for heating blast for shaft-furnaces.....	377,819	Feb. 14	735	186	42	649
Thomson, Robert W., and E. M. Phelps, assignors to said Phelps and C. B. Tuttle, trustees, Lynn, Mass. Finishing button-holes.....	379,497	Mar. 13	928	219	42	1148
Thomson, Thomas, San Francisco, Cal. Bracing for wharves.....	390,319	Oct. 2	165	46	45	36
Thomson, Waddy C., Camden, S. C. Weighing-scale.....	376,925	Jan. 24	1748	400	42	356
Thomson, Walter, Fargo, Dak. Ter. Bank account-book.....	385,648	July 3	475	123	44	92
Thomson, Walter, Fargo, Dak. Ter. Bank account-book. (Reissue).....	10,977	Dec. 25	2451	630	45	1568
Thomson, William, Glasgow, county of Lancaster, Scotland. Navigational sounding apparatus.....	377,696	Feb. 7	520	133	42	593
Thone, Frank, Oskaloosa, Iowa. Incandescent lamp socket.....	379,255	Mar. 13	566	137	42	1078
Thorn, Jacob S. (See Kittredge, Anson O., assignor.)						
Thorn, Jacob S. (See Smith, George A., assignor.)						
Thorn, Theodore St. Clair, Pa. Washing-machine.....	384,298	June 12	686	183	43	1261
Thorne, Joseph, Port Richmond, N. Y., assignor to Thorne Machine Company, of New York. Justifying apparatus.....	387,546	Aug. 7	527	136	44	674
Thorne, Joseph, Port Richmond, N. Y., assignor to Thorne Machine Company, of New York. Justifying apparatus.....	388,088	Aug. 21	1359	367	44	850
Thorne Machine Company. (See Thorne, Joseph, assignor.)						
Thornhill, John H., Wilkes-Barré, Pa. Stem winding and setting watch.....	392,140	Oct. 30	2790	757	45	578
Thornton, James F., Nicholas Court-House, W. Va. Car-coupling.....	378,409	Feb. 21	1660	420	42	821
Thornton, John E., Manchester, county of Lancaster, England. Photographic camera.....	379,543	Mar. 13	674	188	42	1103
Thornton, Thomas W., Steward's Mill, Tex. Planter.....	390,722	Oct. 9	730	192	45	153
Thornycroft, John I., Church Wharf, Chiswick, county of Middlesex, England. Propelling and steering apparatus for ships, &c.....	386,041	July 10	1037	276	44	212
Thornycroft, John I., Chiswick, county of Middlesex, England. Steam-generator.....	387,547	Aug. 7	529	137	44	674
Thornycroft, John I., Chiswick, county of Middlesex, England. Apparatus for controlling pressure.....	394,520	Dec. 11	1159	301	45	1300
Thorp, Charles, Trenton, Wis. Rake.....	391,521	Dec. 11	1162	303	45	1300
Thorp, George, Portsmouth, Mich. Vise.....	392,378	Nov. 6	300	76	45	652



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr't	Vol.	Page.
Thorp, Henry H., Cleveland, Ohio. Pulley .....	393,041	Nov. 20	1277	331	45	857
Thorpe, Edward E., assignor of one-half to H. Robinson, New York, N. Y. Window-cleaner .....	390,723	Oct. 9	731	192	45	153
Thorpe, William. (See Hebdou and Thorpe.) .....						
Thowless, Orlando M., Newark, N. J. Obtaining sodium, &c .....	380,775	Apr. 10	711		43	151
Thowless, Orlando M., Newark, N. J. Apparatus for obtaining sodium, &c .....	380,776	Apr. 10	712	196	43	151
Thowless, Orlando M., Newark, N. J. Obtaining manganese alloys .....	389,910	Sept. 25	1698		44	1419
Thrall, George. (See Taylor, Harrison H., assignor.) .....						
Threlkeld, Charles D., Benton, Ill. Case for the preservation of books .....	381,182	Apr. 17	1341	{ 357 358 }	43	277
Thresher, Clarence P., Winona, Minn. Feathering paddle-wheel .....	376,657	Jan. 17	1386	365	42	279
Thresher, Harry. (See Dearlove and Thresher.) .....						
Thresher, Harry, Loudon, county of Middlesex, England, assignor to A. H. Overman, Boston, Mass. Velocipede .....	387,700	Aug. 14	765	195	44	725
Tbrockmorton, David W., Martinsburg, W. Va. Nut-lock .....	392,702	Nov. 13	773	196	45	749
Thruener, Charles, St. Louis, Mo. Metallic ceiling .....	376,926	Jan. 24	1749	460	42	357
Thum, Otto and W., Grand Rapids, Mich. Combined sticky fly-paper holder and trap .....	393,273	Nov. 20	1690	419	45	921
Thum, William. (See Thum, Otto and W.) .....						
Thum, Charles F., New York, N. Y. Refining petroleum .....	389,988	Sept. 25	1810	479	44	1441
Thurber, Alfred, San Francisco, Cal. Lamp-bracket .....	385,486	July 3	231	59	44	46
Thurber, William E., and J. McConnell, Cleveland, Ohio. Support for telephone-receivers .....	376,615	Jan. 17	1269	332	42	258
Thurman, William C. (See Jefferts and Thurman.) .....	386,667	July 24	1964	518	44	409
Thurston, Charles H., Boston, Mass. Hook .....	389,825	Sept. 18	1549	409	44	1383
Thurston, Harrison F., Bartlett, assignor to C. W. White, Ossipee Valley, N. H. Evaporating-pan .....	376,490	Jan. 17	1088	286	42	223
Thurston, James B., and F. R. Butterfield, Concord, N. H.; said Butterfield assignor to said Thurston. Car-coupling .....	378,260	Feb. 21	1395	366	42	783
Thynne, Guy H., Westminster, England. Joint for pipes .....	393,673	Nov. 27	2210	579	45	1051
Tibbetts, Samuel F., Biddeford, Me. Wood-working machine .....	388,320	Aug. 21	1745	{ 466 467 }	44	923
Tibbitts, John B. (See Mackie, Robb, assignor.) .....						
Tibbles, Charles E., Chicago, Ill. Sewing-machine .....	383,419	May 22	2298	610	43	978
Tibbles, Charles E., Chicago, Ill. Sewing-machine .....	383,924	May 22	126	37	43	1145
Tibbles, George N., Jersey City, N. J. Boat .....	381,729	Apr. 24	2143	{ 561 562 }	43	453
Tichenor, Robert R., and P. Walker, Henning, Minn. Stump-puller .....	383,198	Feb. 22	1966	516	43	918
Tiede, August F., Deep Creek, Iowa. Check-row planter .....	378,222	Feb. 21	1314	349	42	770
Tiemann & Co., George. (See Stehlmann, Frederick A., assignor.) .....						
Tiers, Cornelius. (See Pendleton and Tiers.) .....						
Tiffany, David B., Xenia, Ohio. Alarm-clock case .....	389,120	Sept. 4	482	124	44	1162
Tiffany, John H., Dimock, Pa. Draft attachment for vehicles .....	381,183	Apr. 17	1341	358	43	217
Tiffany, John H., Brooklyn, Pa. Body-support for carts .....	393,274	Nov. 20	1601	419	45	921
Tiffany, Lansing C., Jacksonville, Ill. Harness for veterinary purposes .....	378,153	Feb. 21	1219	318	42	750
Tiffin, Arthur B., et al. (See Kotyra, Maximilian, assignor.) .....						
Tigner, James A. (See Smith, John G. S., assignor.) .....						
Tilden, Burt E., Youngstown, Ohio. Car and engine replacing frog .....	383,779	May 29	2851	750	43	1005
Tilden, Henry, Minneapolis, Minn. Heating-tube for furnaces .....	378,910	Mar. 6	68	20	42	980
Tilden, James A., Hyde Park, Mass., assignor to Hersey Meter Company, Portland, Me. Rotary water-meter .....	380,669	Apr. 3	547	150	43	110
Tilden, James A., Hyde Park, Mass., assignor to Hersey Meter Company, Portland, Me. Rotary fluid-meter .....	385,970	July 10	935	248	44	191
Tilden, James A., Hyde Park, Mass., assignor to Hersey Meter Company, Portland, Me. Rotary fluid-meter .....	385,971	July 10	938	249	44	192
Tilden, John H., et al. (See Jobborn, Moses, assignor.) .....						
Tilford, N. C. (See Downey, Alva C., assignor.) .....						
Tilghman, Samuel H. T., Worcester County, Md. Hoe .....	384,879	June 19	1561	406	43	1433
Tilgner, Gustav, and J. C. Wilcke, Chicago, Ill.; said Wilcke assignor to said Tilgner. Mash-tub .....	384,180	June 5	502	137	43	1218
Tilley, Edwin F., Brooklyn, N. Y. Spring bed-bottom .....	392,529	Nov. 6	516	130	45	693
Tilley, John S., West Troy, N. Y. Ladder .....	377,966	Feb. 14	946	247	42	692
Tillinghast, Pardon W. (See Davenport and Tillinghast.) .....						
Tillman, George D., et al. (See Kearney, William F., assignor.) .....						
Tillotson, A. Fred. (See Mackintosh, John C., assignor.) .....						
Tillotson, Augustine A. (See Keavy, Thomas E., assignor.) .....						
Tillotson, Marshall, Lawrence, Mass., assignor to Providence Steam and Gas Pipe Company, Providence, R. I. Self-closing door .....	386,042	July 10	1039	277	44	212
Tilton, Fred G. (See Escobar, Juan de la Cruz, assignor.) .....						
Tilton, George W., Chicago, Ill. Steam-generating attachment for boilers .....	387,271	Aug. 7	102	26, 27	44	592
Tilton, John P., and W. Scott, assignors of one-third to H. L. Pratt, Lewiston, Me. Stop-motion for looms .....	394,893	Dec. 18	1796	466	45	1438
Tilton, Joseph, assignor of one-half to R. M. Stivers, New York, N. Y. Vehicle running-gear .....	395,191	Dec. 25	2281	585	45	1536
Tilton, Leonard, Brooklyn, N. Y. Lock-hinge .....	390,418	Oct. 2	310	81	45	66
Tilton, Ralph, New York, N. Y., and M. Cowen, Chicago, Ill. Drapery-hook .....	384,004	June 5	241	70	43	1168
Timberlake, Mahlon H., Lafayette, Ind. Pump .....	383,780	May 29	2853	750	43	1095
Timby, Theodore R., assignor of one-half to C. G. Schneider, Washington, D. C. Heat and power supply system .....	379,744	Mar. 20	1294	345	42	1227
Timlin, David J., and Q. B. Heidinger, Belleville, Ill. Automatic valve .....	386,043	July 10	1639	277	44	213
Timlin, David J., and Q. B. Heidinger, Belleville, Ill. Car-heating apparatus .....	387,124	Oct. 31	2670	699	44	547
Timmel, Herrmann, Potschappel, Saxony, Germany. Hinge .....	391,827	Oct. 30	2313	628	45	484
Tinnis, Illius A., and S. C. C. Currie, London, county of Middlesex, England. Apparatus for lighting railway-cars by electricity .....	383,502	May 29	2438	647	43	1012
Timmons, James K. P., Timmons, Tenn. Car-brake .....	375,841	Jan. 3	156	44	42	35
Timmons, James K. P., Timmons, Tenn. Horse-detacher .....	388,931	Sept. 4	187	50	44	1109
Timmons, John, Newark, N. J. Filter .....	380,149	Mar. 27	1922	512	42	13, 8
Timmons, Thomas J., Godwin, Tenn. Vehicle-brake .....	380,365	Apr. 3	91	28	43	20
Timms, Harvey N., Des Moines, Iowa. Cultivator .....	386,567	July 24	1743	461	44	366
Timms, Harvey N., Des Moines, Iowa. Pole and shafts for vehicles .....	387,125	July 31	2673	699	44	548
Timms, James, assignor of one-half to R. M. Rownd, Columbus, Ohio. Car-coupling .....	381,184	Apr. 17	1342	358	43	277
Timohewitsch, Sergay J., Troitskaia, Kalouga, Russia. Apparatus for filigraining paper in the web .....	394,030	Dec. 4	426	{ 114 115 }	45	1152

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Timpson, Fred C. (See Browne, Walter D., assignor.)						
Tindell, Henry. (See Dickerson and Tindell.)						
Tindell, Henry, Harrison, assignor to E. R. Parkhurst, Montclair, N. J. Mechanism for cleaning toothed feed-rolls.	378,739	Feb. 28	2071	546	42	923
Tingle, William H., L. Leibrock, and W. Seitz, Dayton, Ohio. Attachment for faucets.	389,614	Sept. 18	1210	325	44	1321
Tingley, Alfred D. (See Goettel, John, assignor.)						
Tinkham, George F., assignor to Tinkham Smoke Consumer Company, Cedar Rapids, Iowa. Smoke-consumer.	390,193	Sept. 25	2112	563	44	1503
Tinkham Smoke Consumer Company. (See Tinkham, George F., assignor.)						
Tinklepangh, Duane A., Kansas City, Mo. Cable-grip.	394,796	Dec. 18	1640	429	45	1408
Tinlin, James, Clapham, county of Surrey, and J. J. Piatkowski, Goswell Road, county of Middlesex, assignors to S. M. Burroughs and H. S. Wellcome, London, England. Machine for compressing drugs.	390,823	Oct. 9	871	{ 230 231 }	45	178
Tintrop, Henry, San Francisco, Cal. Window.	388,932	Sept. 4	189	50	44	1109
Tippling, Henry G., Kingstown, county of Dublin, Ireland. Endless platway for wheeled vehicles.	384,797	June 19	1425	373	43	1410
Tippy, Oren, and F. D. Smith, New Carlisle, Ind.; said Smith assignor to said Tippy. Rowing-gear.	389,989	Sept. 25	1811	479	44	1441
Tipton, Die P., Brownville, Nebr. Curry-comb.	384,798	June 19	1427	374	43	1410
Tipton, Die P., Brownville, Nebr. Curry-comb.	384,799	June 19	1429	{ 374 375 }	43	1410
Tipton, Die P., Brownville, Nebr. Curry-comb.	384,800	June 19	1430	375	43	1411
Tipton, William M., Cyrene, Mo. Fence.	390,268	Oct. 2	98	28	45	23
Tirrell, Jacob P. (See Taylor and Tirrell.)						
Tirrell, Jacob P., Somerville, Mass., assignor to Electric Gas Lighting Company, Portland, Me. Annunciator.	376,171	Jan. 10	638	170	42	133
Tirrell, Jacob P., Somerville, Mass., assignor to Electric Gas Lighting Company, Portland, Me. Electric bell.	377,916	Feb. 14	870	224	42	677
Tirrell, Jacob P., Boston, Mass., assignor to Electric Gas Lighting Company, Portland, Me. Electro-mechanical gong.	389,423	Sept. 11	946	248	44	1260
Tisdale, Charles D., assignor to himself and J. D. Gould, Boston, Mass. Railway-signal.	382,741	May 15	1302	342	43	778
Tisdell, Abner G., Brooklyn, N. Y. Photographic-plate holder.	386,907	July 31	2350	617	41	488
Titcomb, Edwin F., and C. H. Peters, Denver, Colo. Paint-oil.	389,946	Sept. 25	1747		44	1428
Titcomb, Roscoe, North Yarmouth, Me. Sand-distributing machine.	379,256	Mar. 13	568	158	42	1079
Titscher, August, Schöenstein, Styria, Austria-Hungary. Saw filing and setting machine.	390,532	Oct. 2	475	124	45	96
Titte, Cyrus P., Johnstown, Pa. Rail-loading machine.	376,561	Jan. 17	1181	311	42	241
Tittle, Daniel J., Jr., assignor to E. F. Hackett, Albany, N. Y. Apparatus for dressing off the commutators of dynamo-electrical machines.	379,344	Mar. 13	695	189	42	1103
Titus, Herman P., Lisbon, N. H. Sleigh-knee.	383,259	May 22	2066	542	43	938
Titus, Luther H., San Gabriel, Cal. Device for fumigating trees.	385,389	July 3	74	21	44	16
Titus, Silas W., and C. C. Clark, San Angelo, Tex. Well-drill.	386,280	July 17	1403	370	44	287
Titzel, John A., Glenshaw, Pa. Rubber compound or mixture.	391,927	Oct. 30	2458		45	513
Tivey, Edward, Newton, Mass. Elastic hose.	394,227	Dec. 11	728	193	45	1219
Tivy, William H., and L. Ehrlich, assignors to American Roll Paper Company, St. Louis, Mo. Paper-cutter.	392,895	Nov. 13	1057	273	45	807
Tobey, Corey E., Arkadelphia, Ark. Transplanter.	388,321	Aug. 21	1748	467	44	923
Tobey, Fred W., assignor of one-half to W. F. Lewis, Waterbury, Conn. Door-check.	387,328	Aug. 7	193	50	44	608
Tobey, William L., Boston, Mass. Vise.	380,731	Apr. 10	649	179	43	139
Tobey, William L., Boston, Mass. Wrench.	380,735	Apr. 10	650	180	43	139
Tobias, Benjamin M. (See Fasnacht, Jacob, assignor.)						
Tobin, David P., Newark, N. J. Coal-scuttle.	380,231	Mar. 27	2033	543	42	1380
Tobin, James L. (See Meyer and Tobin.)						
Tobin, William H. (See McRae, Daniel M., assignor.)						
Todd, Asahel, Pultneyville, N. Y. Apparatus for bleaching fruit.	384,880	June 19	1502	406	43	1434
Todd, Cornelius B., assignor to Campbell Burner Company, (limited), Pittsburg, Pa. Gas-burner.	377,787	Feb. 14	687	174	42	641
Todd Cotton Harvester Company. (See Todd, George N., assignor.)						
Todd, Edmund N., Newark, N. J. Varnish.	384,005	June 5	242		43	1168
Todd, George N., Chicago, Ill., assignor to Todd Cotton Harvester Company, of Illinois. Constructing picker-stems.	388,797	Aug. 28	2432	657	44	1060
Todd, Henry B., Meriden, Conn. Eaves-trough hanger.	378,530	Feb. 23	1778	469	42	867
Todd, James, assignor of one-half to G. W. D. Ferris, Allegheny, Pa. Pressure-boist for furnace-doors.	390,627	Oct. 2	593	157	45	119
Todd, Paul P. (See Galbraith, Edward A., assignor.)						
Todd, W. W. (See Horton, John C., assignor.)						
Toepfer, Wenzel, Milwaukee, Wis. Device for operating the bottom doors of steep-tanks, &c.	390,533	Oct. 2	477	125	45	96
Toffler, Simon, New York, N. Y. Metallic door-mat.	387,189	July 31	2765	723	44	563
Toft, George. (See Toft, William H., assignor.)						
Toft, William H., Salem, Mass., assignor to himself and G. Toft, Whiting, Me. Change-maker.	393,939	Dec. 4	299	81	45	1130
Toler, George W., Neodesha, Kans. Car-coupling.	383,781	May 29	2854	751	43	1095
Toler, John, Newark, N. J. Furniture-caster.	389,241	Sept. 11	824	210	44	1237
Toles, Samuel H., Rosendale, Mo. Combined back-band buckle and trace-carrier.	383,782	May 29	2855	751	43	1096
Tollhurst, Alfred, Gravesend, C. A. Glazbrook, Charlton, A. Philbey, Gravesend, county of Kent, and T. Lockerbie, Commercial Road, county of Essex, England; said Glazbrook, Philbey, and Lockerbie assignors to said Tollhurst. Grate.	381,185	Apr. 17	1343	359	43	277
Tolle, Morris, assignor of one-third to H. L. Fox, St. Louis, Mo. Grip-gear for cable roads.	381,469	Apr. 17	1791	477	43	365
Tolman, Gayger D., assignor to himself and L. D. Roberts, Shawano, Wis. Folding hat and coat rack.	385,153	June 26	1973	505	43	1526
Tolman, Gayger D., and L. D. Roberts, Shawano, Wis. Commode.	384,006	June 5	243	70	43	1168
Tolman, Gayger D., and L. D. Roberts, Shawano, Wis. Combination-bracket wash-stand.	387,832	Aug. 14	953	247	44	763
Tolman, Gayger D., and L. D. Roberts, Shawano, Wis. Wash-stand.	389,990	Sept. 25	1812	450	44	1441
Tolson, James C. (See Tolson, Stephen B. and J. C.)						
Tolson, Stephen B. and J. C., Kansas City, Mo. Three-wheel riding-plow.	382,019	May 1	209	55, 56	43	532
Tomblin, Lee E., et al. (See Reynolds, Walter S., assignor.)						
Tomlin, Albert B., Fort Collins, Colo. Twine-holder.	383,157	May 22	1914	500	43	908
Tomlinson, Edwin R., Bridgeport, Conn. Hose-nozzle.	388,159	Aug. 21	1562	400	44	874
Tomlinson, Stephen D., Gladesville, Ga. Tire-tightener.	376,491	Jan. 17	1088	286	42	224
Tomlinson, Thomas, Clarinda, Iowa. Lotion.	390,534	Oct. 2	477		45	97
Tompkins, Albert. (See Firth and Tompkins.)						
Tompkins, Ira. (See Firth and Tompkins.)						
Tompkins, John D., Nas au, N. Y. Apparatus for making paper-stock.	394,031	Dec. 4	427	116	45	1153

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Tompkins, Stonewall, Crozet, Va. Device for imparting end motion to shafts.....	385,649	July 3	476	123	44	93
Tompkins, Warren. (See Porter, Frank A., assignor.)						
Tompkins, William M., Batavia, N. Y. Electric light and globe protector.....	380,301	Mar. 27	2121	567	42	1398
Tompkins, William M., Batavia, N. Y. Grip for fire-escapes.....	380,302	Mar. 27	2122	568	42	1399
Tompkins, William M., Batavia, N. Y. Fire-escape.....	380,303	Mar. 27	2123	568	42	1399
Tompsett, Charles, Omaha, Nebr. Appliance for etching on glass, metals, &c.....	393,867	Dec. 4	201	54, 55	45	1110
Tone, Harrison, Denison, Tex. Button-attaching machine.....	376,971	Jan. 24	1806	476	42	368
Toney, Jay, Omaha, Nebr. Hay-sling.....	393,940	Dec. 4	300	82	45	1130
Toney, Jay, Omaha, Nebr. Pulley.....	393,941	Dec. 4	301	82	45	1130
Tonge, Richard, Alderley Edge, county of Chester, England. Piston and plunger.....	383,783	May 29	2856	751	43	1096
Tonkin, John J., Oswego, N. Y. Cut-off for engines.....	376,616	Jan. 17	1271	333	42	258
Tonks, Edmund, Birmingham, county of Warwick, England. Cord-holder for holding the cords of blinds, &c.....	385,829	July 10	740	193	44	151
Tonks, James T., Waterbury, Conn., assignor to Scovill Manufacturing Company, New York, N. Y. Snap-shutter for photographic cameras.....	366,857	July 31	2273	598	44	473
Tonks, William H. (See Hookham, George, assignor.)						
Tonnar, Felix. (See Schouren, Wilhelm, assignor.)						
Tonns, Louis N., New Brighton, assignor of two-thirds to G. H. Allen, New York, and E. H. Hall, Brooklyn, N. Y. Gun-carriage.....	384,942	June 19	1637	425	43	1449
Tooney, Edward, Lowell, Mass. Lamp.....	386,508	July 24	1744	461	44	366
Toof, Edwin J. (See Ammerman, William M., assignor.)						
Toof, Edwin J., New Haven, Conn. Rufflog attachment for sewing-machines.....	377,363	Jan. 31	2386	689	42	485
Toohy, Cornelius, San Francisco, Cal. Show-stand.....	375,844	Jan. 3	159	45	42	36
Tooker, George W., New York, N. Y. Invalid's bed-pan.....	381,972	May 1	111	26	43	535
Tooley, Logan P., Willow, Cal. Rein-guard for harness.....	379,186	Mar. 6	453	127	42	1053
Topham, Charles. (See Topham, Henry and C.)						
Topham, George W., Boston, Mass. Apparatus for lining journal-boxes.....	388,933	Sept. 4	190	50	44	1109
Topham, Henry and C., Philadelphia, Pa. Loom for weaving leno fabrics.....	383,838	May 29	2942	778	43	1112
Topley, Willis K. (See Gibbons, Topley, and Brown.)						
Toppan, Charles, Salem, Mass. Scouring composition for fibers and fabrics.....	381,444	Apr. 17	1730	.....	43	353
Torbeck, William H., assignor to J. M. Hutton & Company, Richmond, Ind. Coffin-fastener.....	384,181	June 5	504	138	43	1218
Torkelson, Reinhard T. (See Johnson and Torkelson.)						
Torkelson, Reinhard T., assignor to I. Johnson, Worcester, Mass. Velocipede.....	379,258	Mar. 13	570	158	42	1079
Torkelson, Reinhard T., assignor to I. Johnson, Worcester, Mass. Velocipede.....	391,210	Oct. 16	1448	387	45	295
Torkelson, Reinhard T., assignor to I. Johnson, Worcester, Mass. Combination-tool.....	391,211	Oct. 16	1449	387	45	295
Torkelson, Reinhard T., assignor to I. Johnson, Worcester, Mass. Velocipede-treadle.....	391,212	Oct. 16	1451	388	45	295
Torkelson, Reinhard T., assignor to I. Johnson, Worcester, Mass. Revolver.....	391,213	Oct. 16	1453	388	45	295
Torkelson, Reinhard T., assignor to I. Johnson, Worcester, Mass. Revolver.....	391,214	Oct. 16	1455	388	45	296
Torkelson, Reinhard T., and I. Johnson, Worcester, Mass. Plane.....	381,186	Apr. 17	1345	360	43	278
Torkelson, Reinhard T., and I. Johnson, Worcester, Mass.; said Torkelson assignor to said Johnson. Breech-loading fire-arm.....	379,257	Mar. 13	569	158	42	1079
Torley, Heinrich, Hohen-Limbürg, Westphalia, Prussia, Germany. Making double-loop springs.....	388,160	Aug. 21	1503	400	44	874
Toronto Reaper and Mower Company. (See Bayley, William, assignor.)						
Toronto Reaper and Mower Company. (See Whiteley and Bayley, assignors.)						
Torrance, Charles E., Springfield, Mass. Paper-calendering machine.....	394,522	Dec. 11	1162	303	45	1301
Torrance, Francis J., and F. A. Wells, Allegheny, Pa. Wash-tub.....	388,089	Aug. 21	1361	367 368	44	850
Torrent, John, Muskegon, Mich. Steam log-turner.....	379,086	Mar. 6	329	95	42	1027
Torrey, Charlie, McGrawville, N. Y. Guide for sewing-machines.....	379,668	Mar. 20	1185	314	42	1205
Torrey, Edward S. (See Boll, August, assignor.)						
Totman, George W. and P. C., Cassadaga, N. Y. Electric belt.....	377,218	Jan. 31	2166	571	42	446
Totman, Perry C. (See Totman, George W. and P. C.)						
Toucey, Sarah E., New York, N. Y. Grape-seed extractor.....	381,657	Apr. 24	2039	534	43	433
Toulmin, Morton, Baltimore, Md., assignor of two-thirds to M. Dean, Washington, D. C., and R. D. Locke, Macon, Ga. Fastening for mail-matter and other packages.....	394,739	Dec. 18	1536	402	45	1388
Tourgée, Albion W., assignor to E. K. Tourgée, Mayville, N. Y. Post.....	377,337	Jan. 31	2341	679	42	477
Tourgée, Albion W., Mayville, assignor to E. Miller, New York, N. Y. Hydraulic motor.....	395,092	Dec. 25	2106	545 546	45	1507
Tourgée, E. K. (See Tourgée, Albion W., assignor.)						
Tourtet, John M. (See Davies and Tourtel.)						
Tousley, Miron G., assignor to A. Patrick, Englewood, Ill. Portable fuel-magazine for cooking stoves or ranges.....	390,997	Oct. 9	1131	299	45	227
Tousley, Reuben J. (See Pomroy, John R., assignor.)						
Tow, Thomas, Miles City, Mont. Ter. Earth-auger.....	379,345	Mar. 13	696	189	42	1103
Towar, George W., Jr., Detroit, Mich. Emulsifier.....	378,381	Feb. 21	1556	406	42	815
Tower, John J. (See Hartness and Tower.)						
Tower, John J., Brooklyn, N. Y. Plane.....	379,346	Mar. 13	697	159	42	1104
Tower, Levi L., Boston, Mass. Pen-holder.....	378,223	Feb. 21	1316	349	42	771
Tower, Lewis C. (See Barns, John, assignor.)						
Towers & Sullivan Manufacturing Company. (See Word, Arthur M., assignor.)						
Towl, Forrest M., Brooklyn, N. Y. Gas-meter.....	377,967	Feb. 14	947	247	42	693
Towler, Maximilian J. L., Detroit, Mich. Construction of draw-bridges.....	376,972	Jan. 24	1807	476	42	368
Townley, Carter S., Gainesville, Tex. Heating railway-cars.....	383,839	May 29	2943	779	43	1112
Townsley, James L., assignor of one-half to W. C. Niblack, Chicago, Ill. Cash registering and indicating device.....	394,894	Dec. 18	1797	466 467 469	45	1438
Townsend, Byron H., et al. (See Young, Charles H., assignor.)						
Townsend, Charles H., New Haven, Conn. Double reflecting-circle.....	377,280	Jan. 31	2256	596 597	42	462
Townsend, Eli F. (See Robertson, Townsend, and Root.)						
Townsend, Joseph, Glasgow, county of Lanark, Scotland. Depilating and bating.....	381,730	Apr. 24	2145	.....	43	453
Townsend, Louis, and J. E. Auten, Evansville, Ind. Telegraph-key.....	386,729	July 24	2045	539	44	423
Townsend, Samuel D. (See Carmichael and Townsend.)						
Townsend, Theodore F., Philadelphia, Pa. Oil-distributor.....	389,615	Sept. 18	1241	395	44	1321
Townsend, Thomas, Philadelphia, Pa. Drilling-machine.....	389,722	Sept. 18	1413	369	44	1355
Townsend, William J., et al. (See Clarke, Francis E., assignor.)						
Towslev, John T., Cincinnati, Ohio. Truck.....	389,674	Sept. 18	1342	352	44	1340
Tozer, C. W. (See Reilly, James J., assignor.)						
Trabue, Fenelon, Kinsley, Kans. Safety device for elevators.....	386,565	July 24	1828	483	44	381
Trabue, Luther, Girard, Ill. Hasp-lock.....	388,322	Aug. 21	1748	468	44	923
Trabue, Sarah W., Girard, Ill. Baling-press.....	376,688	Jan. 17	1387	365 366	42	279

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Disg.	Vol.	Page.
Trabue, William. (See Brown and Trabue.)						
Tracy, Dwight, New-York, N. Y., assignor to O. H. Harris, Worcester, Mass. Switch-stand	378,025	Feb. 14	1025	268	42	708
Tracy, Edwin A. (See Huntington and Tracy.)						
Tracy, Jacob H. (See Tracy, William and J. H.)						
Tracy, Mary E. (See Nauen, Hermann O., assignor.)						
Tracy, Milton S., Glastonbury, Conn., assignor of one-third to S. A. Danforth, Brooklyn, N. Y. Fry-pan or broiler	392,239	Nov. 6	90	22	45	611
Tracy, Patrick J., Racine, Wis. Electric switch	385,023	June 26	1775	459	43	1486
Tracy, William and J. H., Cambridge, Mass. Rowing-machine	381,187	Apr. 17	1346	360	43	278
Tracy, William P., Grand Rapids, Mich. Caster-socket	378,740	Feb. 28	2072	547	42	923
Tracy, William P., Grand Rapids, Mich. Caster-socket	388,381	Aug. 21	1848	491	44	943
Tracy, William P., assignor of two-thirds to W. R. Shelby and A. M. Amberg, Grand Rapids, Mich. Railway-car step	379,140	Mar. 6	403	114	42	1042
Trafford, Elizabeth R. (See Trafford, Wesley, assignor.)						
Trafford, Wesley, assignor, by mesne assignments, to E. R. Trafford, New York, N. Y. Signaling apparatus	392,766	Nov. 13	871	232 223 224	45	769
Traitel, Benjamin D., and J. Rawiszer, New York, N. Y.; said Rawiszer assignor to said Traitel. Jewelry	394,523	Dec. 11	1165	303	45	1301
Trapp, Edward A., Brooklyn, N. Y. Apparatus for the inspection of buildings from without	388,934	Sept. 4	192	51	44	1109
Trapp, Ferdinand, Chicago, Ill. Folding table and blackboard combined	360,366	Apr. 3	93	28, 29	43	21
Trask, Charles H., Lynn, Mass. Machine for shaping milling-tools	379,187	Mar. 6	453	128 129	42	1053
Trask, Charles H., Lynn, Mass. Heel-trimming machine	388,230	Aug. 21	1594	425 426	44	893
Trask, Charles H., Lynn, Mass., assignor to Duplex Shoe Trimmer Company, Portland, Me. Boot and shoe sole trimming machine	380,609	Apr. 3	456	129	43	93
Trask, Charles H., Lynn, Mass., assignor to Duplex Shoe Trimmer Company, Portland, Me. Boot or shoe trimming machine	383,331	May 22	2160	570 571	43	954
Trask, Harry, Brooklyn, N. Y. Hanger for pipes	379,425	Mar. 13	815	219	42	1127
Trask, Harry, Brooklyn, and W. N. Carmichael, New York, N. Y. Heating apparatus for fire-engines	395,093	Dec. 25	2111	546	45	1508
Traut, Justus A. (See Hall and Traut.)						
Traut, Justus A. (See Mead and Traut.)						
Traut, Justus A., assignor to Stanley Rule and Level Company, New Britain, Conn. Bench-plane	376,455	Jan. 17	1038	272	42	314
Traut, Justus A., assignor to Stanley Rule and Level Company, New Britain, Conn. Clap-board-bracket	377,178	Jan. 31	2101	554	42	434
Traut, Justus A., assignor to Stanley Rule and Level Company, New Britain, Conn. Grooving and boxing tool for carriage-makers	378,854	Feb. 28	2264	602	42	959
Traut, Justus A., assignor to Stanley Rule and Level Company, New Britain, Conn. Bench-plane	386,509	July 24	1745	461	44	366
Traut, Justus A., assignor to Stanley Rule and Level Company, New Britain, Conn. Pocket-rule	387,570	Aug. 7	572	149	44	682
Traut, Justus A., assignor of one-half to H. C. Hind, New Britain, Conn. Box-handle	391,283	Oct. 16	1554	412	45	314
Traver, Adelbert J. (See Wentworth and Traver.)						
Traver, Adelbert J., assignor of one-half to J. Aken, Philmont, N. Y. Button-hole sewing-machine attachment	393,193	Nov. 20	1481	387	45	897
Travers, Herman R. (See Hollingsworth and Travers.)						
Travers, Vincent P., New York, N. Y. Hammock-spreader	381,863	Apr. 24	2351	610	43	491
Travers, Vincent P., New York, N. Y. Holder for hammock-supporting ropes	381,864	Apr. 24	2352	610	43	491
Travers, William G., Conneaut, Ohio. Vessel-trimmer	391,928	Oct. 30	2459	664	45	513
Travis, Charles L., Minneapolis, Minn. Nozzle	378,531	Feb. 28	1779	470	42	868
Travis, Samuel G., Leavenworth, Kans. Folding shipping-crate	385,972	July 10	940	249 250	44	192
Travis, Walter D., et al. (See Fortin, Charles L., assignor.)						
Travis, William D. T., Burlington, N. J. Means for buoying up vessels	387,933	Aug. 14	1119	298	44	795
Trayer, Edward P., and G. H. Kugler, New York, N. Y. Telephone system	377,788	Feb. 14	689	174	42	642
Treadway, Charles S., assignor to Horton Manufacturing Company, Bristol, Conn. Fishing-rod handle	394,032	Dec. 4	429	116	45	1153
Treat, Bryant A., and E. S. Parmelee, Wallingford, Conn. Carriage-wheel	377,587	Feb. 7	349	90	42	562
Treat, Charles R. (See Byrne, John, assignor.)						
Treat, Francis H., assignor of two-thirds to H. S. Smith and C. Pettigrew, Joliet, Ill. Bloom-shear-table and crop-end conveyor	384,220	June 5	558	153 154	43	1229
Treban, Frank, assignor of two-thirds to R. Stecher and C. Fischer, St. Louis, Mo. Self-cleansing filter	387,607	Aug. 7	628	163	44	693
Tredick, Edward. (See Nye, George E., assignor.)						
Tregoning, John. (See Perkins and Tregoning.)						
Tregoning, John, Hartford, Conn. Electric indicator	382,914	May 15	1532	401	43	826
Tregoning, John, Lynn, Mass. Collector	394,797	Dec. 18	1641	429	45	1409
Tremaine, William B., New York, N. Y. Mechanical musical instrument	376,725	Jan. 17	1442	379	42	291
Trench, George, Faversham, county of Kent, England. Blasting	393,798	Dec. 4	90	664	45	1090
Trent, Joseph, Jersey City, N. J. Spring	377,125	Jan. 31	2037	533	42	420
Trenton Iron Company. (See Hewitt, William, assignor.)						
Trenton Iron Company. (See Withington, James, assignor.)						
Tresnon, S. N. (See Haskell, Benjamin C., assignor.)						
Tretlawey, James, Stockton, Cal. Combined harvester and thrasher	380,000	Mar. 27	1704	455	42	1316
Trew, James W., Dubuque, Iowa. Plow or harrow attachment	389,121	Sept. 4	483	124	44	1162
Treweek, Joseph, Lead City, Dak. Ter. Mining-chair and indicating mechanism	394,944	Dec. 18	1886	488	45	1454
Trewitt, Wayne D. (See Blevens, Nathan W., assignor.)						
Trexler, Anna, Sabin, Minn. Combined plow and harrow	389,675	Sept. 18	1343	352	44	1340
Tribbey, Francis M., New Albany, Ind. Combined table and cot	389,911	Sept. 25	1699	449 450	44	1419
Tridell, John F., Clinton, Iowa. Machine for swaging saw-teeth	382,062	May 1	277	73	43	564
Triesler, Ernest H., Baltimore, Md. Sewing-machine	325,973	July 10	941	250	44	192
Triest & Co. (See Seymour, James W., assignor.)						
Trigg, T. P., et al. (See Cleek, James D., assignor.)						
Trim, Eunice A., Malone, N. Mex. Ter. Canteen	382,020	May 1	211	56	43	552
Trimble, James S., New York, N. Y. Hand-stamp	385,432	July 3	147	39	44	30
Trimble, John S. (See Lutz, George W., assignor.)						
Trimble, John S. (See Lutz and Dillon, assignors.)						
Trimble, William D., assignor of one-half to J. T. Freeland, Hampden, Md. Decoy-duck	378,410	Feb. 21	1601	420	42	823

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. 1 <sup>st</sup>	Vol.	Page.
Tripp, Albert H., Rago, Kans. Pulverizer and harrow .....	376,927	Jan. 24	1751	{ 460 461 }	42	357
Tripp, Frances A., Boston, Mass. Dress-maker's square .....	394,524	Dec. 11	1168	304	45	1301
Tripp, George W., Auburn, N. Y. Adjustable stool or chair .....	381,188	Apr. 17	1347	360	43	278
Tripp, Henry C., Auburn, N. Y. Folding screen .....	388,161	Aug. 21	1504	401	44	874
Tripp, Ira B., Aurora, Ill. Window-curtain bar .....	381,189	Apr. 17	1348	360	43	278
Tripp, Seth D., Lynn, Mass. Lasting-jack .....	378,118	Feb. 21	1159	302	42	741
Tripp, Seth D., Lynn, Mass. Stud or hook setting machine .....	394,228	Dec. 11	728	193	45	1219
Tripp, Thomas, Stoughton, Mass. Anti-friction journal-box .....	377,697	Feb. 7	522	134	42	593
Tripp, Thomas, East Stoughton, Mass. Metallic packing .....	391,991	Oct. 30	2550	{ 690 691 }	45	531
Tripp, William D., Augusta, Kans. Boring-machine .....	386,566	July 24	1830	483	44	381
Tripp, Wright S., De Ruyter, N. Y. Vehicle-pole .....	394,667	Dec. 18	1421	370	45	1363
Trippe, Sylvanus L., St. Louis, Mo. Electrode for secondary batteries .....	388,601	Aug. 28	2152	577	44	1007
Trippe, Sylvanus L., St. Louis, Mo. Cell for electric batteries .....	389,676	Sept. 18	1344	352	44	1340
Trippe, Sylvanus L., Denver, Colo., assignor to Electric Storage Light and Power Com- pany. Secondary or storage electric battery .....	385,390	July 3	76	21	44	17
Trisler, John W. (See Wallace, John M., assignor.) .....						
Troast, William F., assignor of one-third to S. E. Slaymaker, Lancaster, Pa. Padlock ....	386,510	July 24	1746	462	44	366
Trollet, Alfred. (See Revol, Etienne, assignor.) .....						
Trommauser, Jesse H., assignor of two-thirds to Barnett & Record, Minneapolis, Minn. } Grain-distributor .....	392,171	Oct. 30	2836	{ 768 769 }	45	586
Troost, Otto, <i>et al.</i> (See Bundy, Warren, assignor.) .....						
Trolicht, August, <i>et al.</i> (See Maurino, Henry Q., assignor.) .....						
Trott, Charles F. (See Whiting, William S., assignor.) .....						
Trott, Michael. (See Bachulein, Joseph, assignor.) .....						
Trott, Stinson E., Kansas City, Mo. Paper pressed shingle .....	394,033	Dec. 4	430	116	45	1153
Trotter, Charles W., Rochester, N. Y. Refrigerator .....	395,254	Dec. 25	2384	610	45	1555
Trout, John W., Cherry Vale, Kans. Veneer-machine .....	378,741	Feb. 28	2073	547	42	923
Trovillion, Fremont, Norris City, Ill. Cabinet-drawer .....	395,192	Dec. 25	2283	586	45	1536
Trovillion, James C., Sanburn, Ill. Combined screw-holder, screw-driver, and counter- screw .....	382,670	May 8	1204	312	43	750
Trowbridge, Augustus S., assignor of two-thirds to C. W. Shippee, Milford, and W. H. Daniels, Boston, Mass. Sewing-machine attachment for preventing kinks in waxed thread .....	393,042	Nov. 20	1278	331	45	857
Trowbridge, Charles E., assignor to Whitinsville Spinning Ring Company, Whitinsville, Mass. Apparatus for burling spinning-rings .....	391,725	Oct. 23	2150	521	45	442
Trowbridge, Charles W., Chicago, Ill. Portable metal-sawing machine .....	388,602	Aug. 28	2153	{ 577 578 }	44	1007
Trowbridge, Charles W., Chicago, Ill. Sawing-machine .....	390,628	Oct. 2	595	{ 157 158 }	45	119
Trowbridge, Frank, assignor to H. T. Sackett, Fond du Lac, Wis. Car-heater .....	381,512	Apr. 17	1829	483	43	373
Trowbridge, William P., New Haven, Conn. Stamp-protector .....	378,119	Feb. 21	1160	302	42	741
Troy Laundry Machinery Company. (See Downs, George N., assignor.) .....						
Troy Laundry Machinery Company. (See Roberts, George C., assignor.) .....						
Troy Laundry Machinery Company. (See Skinner, Henry J., assignor.) .....						
Trubel, George, Lewistown, Ill. Milk-strainer .....	394,798	Dec. 18	1642	430	45	1409
True, Irving J., Hope Valley, R. I. Tag or label for poultry .....	381,588	Apr. 24	1960	516	43	417
True, Moses E., assignor to Batavia Vehicle-hub, Batavia, N. Y. Vehicle-hub .....	381,891	Apr. 24	2393	622	43	590
Truesdell, Lucius E., Bristol, N. H. Locomotive fire-extinguishing apparatus .....	380,956	Apr. 10	969	622	43	201
Truesdell, Lucius E., assignor of one-half to N. W. Cass, Bristol, N. H. Car heater and lighter .....	380,411	Apr. 3	153	44	43	32
Truesdell, Otis J., Farlington, Kans. Baling-press .....	393,056	Nov. 20	1332	347	45	867
Truitt, Henry A. (See McDevitt, Walter J., assignor.) .....						
Truitt, James S., Hillsborough, Tex. Spirit-level sheath .....	379,259	Mar. 13	572	159	42	1080
Trumble, Henry E., Kalamazoo, Mich. Water-motor .....	393,316	Nov. 20	1600	438	45	933
Trumble, Henry E., Kalamazoo, Mich. Water-motor .....	394,740	Dec. 18	1537	402	45	1388
Trumbull, Rollin H., Evanston, Ill. Band-saw wheel .....	381,723	Sept. 18	1415	369	44	1355
Trump, John G., <i>et al.</i> (See Barnes, Thomas W., assignor.) .....						
Trumpbour, Egbert E. (See Bryant and Trumpbour.) .....						
Tryner, James P., Denver, Colo. Spectacles .....	375,964	Jan. 3	325	87	42	67
Tryner, James P., and C. E. Glessner, Denver, Colo. Switch-operating attachment .....	389,947	Sept. 25	1747	462	44	1428
Tryon, Charles H. (See Alexander, James H., assignor.) .....						
Tryon, Le Roy C., Marseilles, Ill. Automatic grain weighing and registering appara- tus .....	385,024	June 26	1776	459	43	1487
Tschinkel, George, Brooklyn, N. Y. Candy-machine .....	385,487	July 3	232	60	44	46
Tschnor, Antoni, Wapakoneta, Ohio. Churn .....	387,190	July 31	2765	{ 723 724 }	44	563
Tubbs, Edward M. (See Gorrell and Tubbs.) .....						
Tuchfeld, Moses, Jackson, Tenn. Window frame and sash .....	390,919	Oct. 9	1009	265	45	204
Tuchfeld, Moses, Jackson, Tenn. Hanger for displaying textile articles .....	391,868	Oct. 30	2371	644	45	495
Tuck, Adaline, and H. A. Smith, Lynn, assignors to W. Hammoud, trustee, Woburn, Mass. Dress-form .....	393,799	Dec. 4	90	25	45	1090
Tuck, Nelson L., Philadelphia, Pa. Machine for printing oil-cloth .....	377,789	Feb. 14	690	{ 175 176 }	42	642
Tucker, Charles A., Islip, N. Y., assignor to Tucker Electrical Manufacturing Company, of New York. Electric lock .....	376,121	Jan. 10	560	148	42	118
Tucker Electrical Manufacturing Company. (See Tucker, Charles A., assignor.) .....						
Tucker, Henry, and P. J. Keegan, San Francisco, Cal. Hose-bridge .....	390,920	Oct. 9	1010	266	45	204
Tucker, Henry C., Newark, N. J. Metallic fence-post .....	391,869	Oct. 30	2371	644	45	496
Tucker, Richard H., Wiscasset, Me. Hull of vessels .....	394,416	Dec. 11	1011	265	45	1274
Tucker, Rollin D., Lynn, Mass. Welt-guide for sewing-machines .....	387,963	Aug. 14	1164	{ 315 316 }	44	804
Tucker, Rollin D., Lynn, Mass. Feeding mechanism for sewing-machines .....	388,065	Aug. 14	1238	334	44	817
Tucker, Sidney D., Troy, N. Y. Feeding attachment for sewing-machines .....	376,122	Jan. 10	562	149	42	118
Tucker, Stephen D., <i>et al.</i> (See Crowell, Luther C., assignor.) .....						
Tucker, Stephen D., <i>et al.</i> (See Hoe and Weckerlin, assignors.) .....						
Tucker, Stephen D., New York, N. Y. Web printing and delivery mechanism .....	380,001	Mar. 27	1706	{ 456 457 }	42	1317
Tucker, Thomas, Marseilles, Ill. Compensating gear .....	382,337	May 8	691	174	43	676
Tucker, William, Decherd, Mo. Lifting-jack .....	388,090	Aug. 21	1363	368	44	850
Tuckwood, Charles H. (See Tuckwood, William and C. H.) .....						
Tuckwood, William and C. H., Janesville, Wis. Balance-gearing for windmills .....	389,342	Sept. 11	825	211	44	1238



## Alphabetical list of patents—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Tuesh, Ambrose H., <i>et al.</i> (See Jarboe and McHale, assignors.)						
Tufts, James W. (See McQuaide, John F., assignor.)						
Tufts, James W. (See White, James E., assignor.)						
Tufts, James W., Medford, Mass. Making electrolytic dies. (Reissue) .....	10,956	Aug. 28	2451	{ 661 662 }	{ 44 44 }	1064
Tull, Francis S., Galveston, Tex. Car-truck .....	389,343	Sept. 11	827	211	44	1238
Tull, Francis S., Galveston, Tex. Sleeping-car .....	389,344	Sept. 11	828	211	44	1238
Tullar, Samuel, Warden, Quebec, Canada. Stain for brick-work .....	383,330	May 22	2160		43	954
Tuller, George L., Norwalk, Conn. Combined paper-weight and pen, pencil, or cigar holder.	377,726	Feb. 7	558	143	42	600
Tulloch, David. (See Myer, Willard F., assignor.)						
Tulloch, Seymour W., <i>et al.</i> (See Patton, William P., assignor.)						
Tully, Andrew R., New York, N. Y. Carriage-curtain fastener .....	392,703	Nov. 13	774	196	45	750
Tully, Charles H., Middletown, Cal. Revolving show-case .....	382,445	May 8	854	218	43	681
Tunis, John M., and W. F. Bedford, Madison, N. J. Lock for sliding doors .....	389,345	Sept. 11	830	212	44	1238
Tunstall, William, Brooklyn, N. Y. Rotary ice-pick .....	390,998	Oct. 9	1132	299	45	227
Tupper, Judson E. (See Parker and Tupper.)						
Turley, Marshall, and G. W. Chamberlin, Council Bluffs, Iowa. Composition of matter for plaster .....	389,734	Sept. 18	1417		44	1356
Turnbach, Samuel, Bloomsburg, Pa. Washing-machine .....	390,721	Oct. 9	731	192	45	151
Turnbull, Andrew, New Britain, Conn. Weighing-scale .....	375,382	Feb. 21	1556	407	42	815
Turner-Beard Automatic Brake Company. (See Turner, William B., assignor.)						
Turner, Charles B., White Sulphur Springs, W. Va. Sickle-bar .....	392,833	Nov. 13	979	251	45	790
Turner, Daniel B. N., Earles, Ky. Planter .....	379,834	Mar. 20	1449	383	42	1256
Turner, Donleo B., Chicago, Ill. Arc light .....	393,405	Nov. 27	1793	{ 473 474 }	{ 45 45 }	967
Turner, Edmund H., Fergus Falls, Minn. Device for hitching horses .....	392,834	Nov. 13	980	251	45	790
Turner, Edmund H., Fergus Falls, Minn. Thill-holder .....	392,835	Nov. 13	981	251	45	790
Turner, Edmund H., Fergus Falls, Minn. Auxiliary seat for buggies .....	393,129	Nov. 20	1389	363	45	878
Turner, Frank B., Portland, Oreg. Steam steering-gear .....	394,314	Dec. 11	867	228	45	1247
Turner, George W., Jasper, Mo. Adjustable lid for egg-cases .....	391,766	Oct. 23	2205	595	45	453
Turner, Henry S., <i>et al.</i> (See Metcalf, George A., assignor.)						
Turner, J. Stanley, Rockland, Mass. Last .....	382,338	May 8	692	174	43	650
Turner, J. Stanley, Rockland, Mass. Last .....	382,339	May 8	693	174	43	650
Turner, James C., Sterling, Kans. Sample-holder .....	380,002	Mar. 27	1711	458	42	1317
Turner, James J., assignor to himself and J. F. Miller, Richmond, Ind. Switch and signal interlocking .....	381,093	Apr. 10	1214	{ 325 326 }	{ 43 43 }	244
Turner, James J., assignor to himself and J. F. Miller, Richmond, Ind. Device for actuating railway-signals .....	382,284	May 1	600	152	43	623
Turner, James J., assignor to himself and J. F. Miller, Richmond, Ind. Signal-compensator .....						
Turner, Simeon, assignor of one-half to H. J. Coles, Warren, Ind. Barrel-lifter .....	385,025	June 26	1778	459	43	1487
Turner, Thomas G., New York, N. Y. Chemical fire-extinguisher .....	380,640	Apr. 3	496	138	43	101
Turner, Thomas G., New York, N. Y. Stopper for bottles .....	381,658	Apr. 24	2040	534	43	433
Turner, Thomas G., New York, N. Y. Fire-alarm system .....	389,677	Sept. 18	1346	353	44	1341
Turner, Thomas G., New York, N. Y. Fire-alarm system .....	389,678	Sept. 18	1347	353	44	1341
Turner, Thomas G., New York, N. Y. Fishing-reel handle .....	391,992	Oct. 30	2553	691	45	531
Turner, Thomas G., New York, N. Y. Fire-extinguisher .....	392,936	Nov. 13	1111	288	45	816
Turner, Thomas G., Marshallton, Del. Apparatus for cleaning sheet-iron .....	392,082	Oct. 30	2684	731	45	557
Turner, William A., San Francisco, Cal. Device for actuating street or station indicators .....	389,122	Sept. 4	484	124	44	1163
Turner, William A., San Francisco, Cal. Street or station indicator and card-displaying device .....						
Turner, William A., San Francisco, Cal. Device for actuating station-indicators .....	394,741	Dec. 18	1539	403	45	1388
Turner, William B., Schenectady, N. Y. Journal-box .....	394,799	Dec. 18	1643	430	45	1409
Turner, William B., New York, N. Y. Clutch mechanism .....	385,288	June 26	2184	558	43	1568
Turner, William B., New York, N. Y. Clutch mechanism .....	387,272	Aug. 7	103	2728	44	592
Turner, William B., New York, N. Y., assignor to Turner-Beard Automatic Brake Company, of New York. Automatic car-brake .....	377,774	Feb. 14	806	{ 206 207 }	{ 42 42 }	663
Turner, William B., assignor to Turner-Beard Automatic Brake Company, New York, N. Y. Reversible ratchet-clutch mechanism .....	386,044	July 10	1040	277	44	213
Turner, William B., New York, N. Y., assignor to Turner-Beard Automatic Brake Company. Car-brake .....	386,793	July 24	2145	563	44	441
Turner, William H., Tunstall, county of Stafford, England. Printing and decorating china .....	391,346	Oct. 16	1633		45	328
Turner, William J., Templeton, Mass. Machine for edging sheet metal .....	389,912	Sept. 25	1702	{ 450 451 }	{ 44 44 }	1419
Turney, George L., London, England. Needle-case .....	387,273	Aug. 7	106	28	44	593
Turney, John P., Arlington, Oreg. Car-coupling .....	388,231	Aug. 21	1597	{ 426 427 }	{ 44 44 }	894
Turnipseed, William W., Hampton, Ga. Fertilizer distributor .....	388,511	Aug. 28	2019	542	44	981
Turretini, François, Geneva, Switzerland. Endless saw for cutting stone .....	379,835	Mar. 29	1451	384	42	1256
Tuthill, Harrison. (See Brooks, Harry, assignor.)						
Tuttle, Calvin B., trustee. (See Thomson and Phelps, assignors.)						
Tuttle, Elias A., <i>et al.</i> (See Littlefield, Charles A., assignor.)						
Tuttle, Lewis C., assignor of one-half to A. Kolb, Cleveland, Ohio. System of ventilation .....	389,616	Sept. 18	1242	325	44	1321
Tuttle, Marie L., <i>et al.</i> (See Tuttle, Washington I., assignor.)						
Tuttle, Washington I., assignor to M. L. Tuttle, Rochester, and K. C. Brown, Buffalo, N. Y. Tobacco-moistener .....	392,575	Nov. 6	581	146	45	706
Tuttle, Washington I., assignor to M. L. Tuttle, Rochester, and K. C. Brown, Buffalo, N. Y. Device for suspending articles .....	392,576	Nov. 6	583	147	45	707
Tutton, Arthur W., Eau Claire, Mich. Hay-carrier .....	380,412	Apr. 3	154	44	43	32
Tweedale, Edmund, assignor to J. Bullough, Accrington, county of Lancaster, England. Electric testing device for card-fats .....	390,101	Sept. 25	1982	527	44	1476
Tweedale, Samuel, Accrington, county of Lancaster, England. Differential motion for slubbing and roving frames .....	386,906	July 31	2347	617	44	488
Tweedie, John. (See McGeunness and Tweedie.)						
Tweedy, Edmund. (See Roberts, Isaiah L., assignor.)						
Twick, Friedrich, Sheboygan, Wis. Land-roller and clod-crusher .....	380,003	Mar. 27	1712	458	42	1317
Twiss, James G., New York, N. Y. Folding bedstead .....	377,179	Jan. 31	2101	554	42	434
Twist, Charles H., New York, N. Y. Steam-boiler .....	384,943	June 19	1638	426	43	1449
Twist, Robert, Dundee, Ill. Butter-worker .....	393,043	Nov. 20	1278	331	45	857
Twitchell, Frank M., assignor to H. Twitchell & Son, Nantucket, Conn. Safety-pin .....	381,513	Apr. 17	1831	484	43	373
Twitchell, Selden, Philadelphia, Pa. Bottle-stopper .....	380,957	Apr. 10	990	262	43	201
Twitchell & Son, H. (See Twitchell, Frank M., assignor.)						
Tryman, Aaron, Pullman, Ill. Conical wheel .....	387,191	July 31	2766	724	44	564
Tyden, Emil, Chicago, Ill. Saw-feeding machine .....	378,060	Feb. 14	1069	{ 280 281 }	{ 42 42 }	715

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Tyden, Emil, Chicago, Ill. Door-check	380,367	Apr. 3	94	29	43	21
Tyden, Emil, Chicago, Ill. Planter	385,583	July 3	375	97, 98	41	75
Tyers, William, Sharon, Pa. Attachment for plows	377,126	Jan. 31	2039	533	42	420
Tyler, Aaron J., Albion, N. Y. Hydrant	386,095	July 10	1122	299	41	227
Tyler, Aaron J., Albion, N. Y. Hydrant	388,738	Aug. 28	2433	657	44	1060
Tyler, Aaron J., Albion, N. Y. Eccentrolined	388,739	Aug. 28	2435	657	44	1060
Tyler, Aaron J., Albion, N. Y. Hydrant	389,176	Sept. 4	573	145	44	1178
Tyler, Aaron J., Albion, N. Y. Double-acting force-pump	394,086	Dec. 4	509	136	45	1169
Tyler, Aaron J., Albion, N. Y. Attachment for pumps	394,087	Dec. 4	511	138	45	1169
Tyler, Aaron J., Albion, N. Y. Pump	394,088	Dec. 4	515	138	45	1170
Tyler, Arthur F., Athol, Mass. Machine for smoothing and finishing blind-slats	389,826	Sept. 18	1550	410	44	1383
Tyler, Burton, et al. (See Bentley, Solomon P., assignor.)						
Tyler, Charles N., Buffalo, N. Y. Siphon	378,811	Feb. 28	2187	582	42	946
Tyler, Charles N., Buffalo, N. Y. Fluid-discharge device	378,812	Feb. 28	2188	583	42	946
Tyler, Darius S., Clio, Mich., assignor to Wire Goods Company, Worcester, Mass. A gate-spinner	392,240	Nov. 6	91	22	45	611
Tyler, George L., Lynn, Mass. Leather-splitting machine	378,185	Feb. 21	1261	333	42	759
Tyler, George L., Lynn, Mass. Leather-splitting machine	378,186	Feb. 21	1263	334	42	759
Tyler, George L., Troy, N. Y. Curtain-roller support	381,041	Apr. 10	1121	301	43	226
Tyler, James A. M., and J. S. Thomas, Plum Creek, Nebr. Four-horse equalizer	384,652	June 19	1211	320	43	1368
Tyler, Merrill A., Easton, and E. Merritt, Brockton, Mass., assignors to American Heeling Machine Company, Portland, Me. Heeling-machine	382,121	May 1	361	95	43	580
Tyler, Morris S., Lansing, Mich. Bob-sled	376,492	Jan. 17	1089	286	42	224
Tyler, Morris S., Lansing, Mich. Wagon running-gear	379,619	Mar. 20	1115	295	42	1191
Tyler, Washington S. (See White, Joseph W., assignor.)						
Tyler, William H., David City, Nebr. Snap-book	390,629	Oct. 2	596	158	45	120
Tyrell, Asahel H., Tyrell Hill, Ohio. Nail-plate feeder	381,599	Apr. 24	1960	516	43	417
Tyrell, Edward, Brooklyn, assignor to Eagle Pencil Company, New York, N. Y. Lead or crayon holder	394,146	Dec. 4	599	161	45	1186
Tym, Ulysses S., Ridgley, Nebr. Wagon end-gate	389,679	Sept. 18	1348	353	44	1341
Tyson, George E., and M. M. Deem, Reading, Pa. Stove-door knob	389,177	Sept. 4	575	146	44	1178
Tyson, Thomas, Mound City, Mo. Wagon-body	390,043	Sept. 25	1890	409	44	1457
Tyson, Thomas, Mound City, Mo. Gate	392,937	Nov. 13	1112	288	45	817
Uddenberg, Arthur. (See Sweder, August M., assignor.)						
Udell, Calvin G. (See Leach, Joseph, assignor.)						
Ufford, Charles A., and W. L. Hendrick, Boston, Mass.; said Hendrick assignor to said Ufford. Dress-form	377,338	Jan. 31	2344	679	42	477
Uhlenhart, William L., Astoria, Oreg. Car-coupling	382,783	May 15	1360	357	43	769
Uhlinger, William P. (See Insinger, Alfred, assignor.)						
Uhlinger, William P., Philadelphia, Pa. Take-up mechanism for looms	390,630	Oct. 2	596	158	45	120
Uhlmann, Charles R., Peoria, Ill. Key-hole guard	382,122	May 1	363	95	43	580
Uhlmann, Charles R., Peoria, Ill. Lock	380,511	July 24	1747	462	44	367
Uhlmann, Frederick, et al. (See Stockheim, Heinrich, assignor.)						
Uhlmann, Simon, et al. (See Stockheim, Heinrich, assignor.)						
Uhri, Jacob. (See Knudtson and Uhri.)						
Uhrig, John W. M., assignor to J. French, New York, N. Y. Display-box for neckties	378,224	Feb. 21	1317	350	42	771
Uhrig, Charles L., Newark, N. J. Buttoner	389,663	Sept. 18	1646	440	44	1346
Ulke, Veronica, Washington, D. C. Waist-garment	377,339	Jan. 31	2345	679	42	478
Ullery, Alonzo B., Denver, Colo. Attachable match-lighter	389,266	Sept. 11	710	182	44	1216
Ulrich, Eduard, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Prussia, Germany. Production of blue coloring-matter	384,480	June 12	947		43	1309
Ulrich, Jacob B. (See Brown and Ketchum, assignors.)						
Ulrichs, Georg B., Hoboken, N. J. Chair-fan	394,229	Dec. 11	730	193	45	1219
Ulsh, James M., Steelton, Pa., assignor of one-half to C. De Murguiondo, Brooklyn, N. Y. Harrow	391,494	Oct. 23	1844	493	45	378
Ulsh, John L., South Wabash, Ind. Potato-drill	379,745	Mar. 20	1295	346	42	1227
Ulsh, John L., South Wabash, Ind. Automatic table-leaf supporter	390,145	Sept. 25	2037	543	44	1488
Umbach, George W., et al. (See Schiller, Frederick W., assignor.)						
Umbenhaur, Richard H., Toledo, Ohio, assignor to L. Coats, Chicago, Ill. Burglar-alarm	386,045	July 10	1012	278	44	213
Umland, Wilhelm, assignor to P. D. Strauch, New York, N. Y. Damper for upright pianos	391,495	Oct. 23	1845	494	45	378
Unbehend, Jacob J., assignor to J. L. Thomson & Co., Syracuse, N. Y. Machine for slotting rivet-shanks	381,514	Apr. 17	1832	484	43	374
Unbehend, Jacob J., assignor to J. L. Thomson & Co., Syracuse, N. Y. Shoe-clasp	384,339	June 12	752	197	43	1272
Underwood, George B., et al. (See Jobborn, Moses, assignor.)						
Underwood, Harold G. (See Heine, Herman, assignor.)						
Underwood, Henry M., Waukegan, Ill. Letter-copying book	385,433	July 3	148	39, 40	44	30
Underwood, John T., Brooklyn, N. Y., and W. C. Brookes, Jersey City, N. J.; E. Brookes executrix of said W. C. Brookes, deceased. Ink-ribbon for type-writing machines	385,391	July 3	77	21	44	17
Underwood, Joseph B., Fayetteville, N. C. Distilling turpentine	393,942	Dec. 4	302		45	1130
Underwood, Joseph B., Fayetteville, assignor to J. B. Duke, Durham, N. C. Vending apparatus	381,892	Apr. 24	2394	623	43	500
Underwood, Nathan, Jr., et al. (See Murray, William B., assignor.)						
Underwood, Thomas J., Decatur, Ill. Automatic grain-scale	389,864	Sept. 18	1627	430	44	1397
Underwood, Thomas J., Decatur, assignor of one-half to E. Dunkel, Emery, Ill. Grain-elevator	377,917	Feb. 14	871	294	42	677
Underwood, Walter H., Denver, Colo. Distributing-tip for liquid-receptacles	378,742	Feb. 28	2074	547	42	924
Underwood, Walter H., Denver, Colo. Bottle-stopper	378,743	Feb. 28	2075	547	42	924
Underwood, Walter H., Denver, Colo. Combined spreader and stopper for mucilage and other bottles	378,744	Feb. 28	2076	548	42	924
Unexcelled Fireworks Company. (See Fletcher, John N., assignor.)						
Unexcelled Fireworks Company. (See Linton, Charles B., assignor.)						
Unexcelled Fireworks Company. (See Wadsworth, Claudius, assignor.)						
Unfried, Peter, Chicago, Ill. Gate	375,903	Jan. 3	232	63	42	49
Ungemach, Theobald F., assignor of one-half to J. C. Sullivan, Zanesville, Ohio. Toy money-bank	389,178	Sept. 4	576	146	44	1178
Unger, Wilhelm, Wooster, Ohio. Brush	377,180	Jan. 31	2103	554	42	434

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Union Button Sewing Machine Company. (See Cummings, Henry H., assignor.)						
Union Foundry. (See Vietmeyer, Henry W., assignor.)						
Union Grapple Company. (See Sanborn, Darius S., H., and E., assignors.)						
Union Hardware Company. (See Hartness, James, assignor.)						
Union Heel Trimmer Company. (See Noble and Childs, assignors.)						
Union Paper Bag Machine Company. (See Appel, Daniel, assignor.)						
Union Paper Bag Machine Company. (See Benner, Lorenzo D., assignor.)						
Union Special Sewing Machine Company. (See Muther, Lorenz, assignor.)						
Union Wire Mattress Company. (See Bindeman, Herman A., assignor.)						
Union Wire Mattress Company. (See Powers, David J., assignor.)						
United Electric Improvement Company. (See Currie, Stanley C. C., assignor.)						
United Gas Improvement Company. (See Humphreys, Alexander C., assignor.)						
United States Arc Gas Company. (See Henry, Sidney, assignor.)						
United States Automatic Water Cut-Off Company. (See Browne, Walker G., assignor.)						
United States Cotton Harvester Company. (See Bugg, Owen T., assignor.)						
United States Cotton Harvester Company. (See Bugg and Langley, assignors.)						
United States Electric Company. (See Short, Sidney H., assignor.)						
United States Electric Lighting Company. (See Kelly, John F., assignor.)						
United States Electric Lighting Company. (See Müller, Moritz A., assignor.)						
United States Food Fertilizer and Manufacturing Company. (See Houseman and Sprowles, assignors.)						
United States Hoop and Machine Manufacturing Company. (See Blake, John W., assignor.)						
United States Incandescent Gas Lamp Company. (See Horry, William S., assignor.)						
United States Machine and Inventions Company. (See Clawson, Clement C., assignor.)						
United States Rolling Stock Company. (See Kennedy, Martin, assignor.)						
United States Rolling Stock Company. (See Stagg, John L., assignor.)						
United States Weighing Machine Company. (See Stone and Pitt, assignors.)						
United States Wind Engine and Pump Company. (See Burnham and Miller, assignors.)						
Universal Cigar Rolling Machine Company <i>et al.</i> (See Hammerstein, Oscar, assignor.)						
"Universal" Crimper Company. (See O'Connor, John F. K., assignor.)						
Universal Lock-Hinge Company. (See Wolf, Josef, assignor.)						
Unsoeld, J. George, Chicago, Ill. Draft attachment for wagons	383,784	May 29	2857	752	43	1096
Unterbrink, Ignatius L., St. Rosa, and A. G. Vandenbroek, Cassella, Ohio. Apparatus for teaching arithmetic	390,824	Oct. 9	873	231	45	178
Unverferth, David, Dayton, Ohio. Saddle	382,446	May 8	855	218	43	681
Unwin, Fred., Brussels, Belgium. Dabbling mechanism for wool-combing machines	391,567	Oct. 23	1935	522	45	399
Unz, Henry H., Philadelphia, Pa. Calendar stand and pad	393,528	Nov. 27	1989	520	45	1006
Unzicker, Otto, assignor to A. Shoeninger, Chicago, Ill. Velocipede	393,044	Nov. 20	1280	332	45	857
Upham, Andrew J., Sycamore, Ill. Tank-heater	387,462	Aug. 7	390	101	44	649
Upham, George B. (See Potter and Upham.)						
Upington, James T., Lexington, Ky. Wheel	384,445	Apr. 17	1731	462	43	353
Upp, Philip J., <i>et al.</i> (See Coffman, George, assignor.)						
Upsdale, John, London, England. Manufacture of gloves	386,943	July 31	2399	631	44	498
Upson Nut Company. (See Graham, Charles H., assignor.)						
Upson Nut Company. (See Woodford, Wesley W., assignor.)						
Upton, Charles S. (See Rhind, Frank, assignor.)						
Upton, Charles S., New York, N. Y. Lamp	379,836	Mar. 20	1451	384	42	1257
Upton, Charles S., New York, N. Y. Lamp	381,042	Apr. 10	1122	301	43	226
Upton, Clarence A., Lowell, Mass. Evener for railway-heads	387,701	Aug. 14	766	195	44	726
Urban, Edgar W. (See Barton, William H. H., assignor.)						
Urban, Benjamin F. W., Lancaster, Pa. Combined heater and ventilator	392,475	Nov. 6	443	111 112	45	678
Urban, Jacob B. (See Greenawalt and Urban.)						
Urban, Oscar, and M. J. Wightman, Hartford; said Urban assignor to Schuyler Electric Company, Middletown, Conn. Dynamo-electric machine	379,037	Mar. 6	258	73	42	1014
Uren, Richard, Houghton, Mich. Ore-crusher	376,928	Jan. 24	1752	461	42	357
Urick, William P. B., Newark, N. J. Window	386,668	July 24	1965	519	41	409
Uridge, George R., Detroit, Mich. Air-feeding device for furnaces	393,800	Dec. 4	92	26	45	1090
Urie, Thomas S., Carson City, Mich. Churn	386,616	July 24	1890	499	41	395
Urquhart, David, Westminster, and B. Nicholson, South Norwood Park, county of Surrey, assignors to New Portable Electric Lamp and Power-Syndicate Company, (limited), London, England. Galvanic battery	377,340	Jan. 31	2347	680	42	478
Urquhart, Thomas, Borissoglebsk, Tambof, Russia. Device for turning crank-pins	388,745	Aug. 28	2352	634	44	1045
Urso, Vincent D., Evansville, Ind. Heating-drum	383,381	May 22	2229	591 592	43	967
Usine Genevoise de Degrossissage d'Or. (See Ostermann and Laeroix, assignors.)						
Utzinger, Albert W., Astoria, Oreg. Music-rack holder	389,346	Sept. 11	831	212	44	1239
Vacher, Ernest W., Moore's Station, Tex. Spout-connection for cans and the like	389,488	Sept. 11	1041	277 278	41	1277
Vail, James B. (See Vail, John E. and J. B.)						
Vail, James W., trustee. (See Kenna, Joseph W., assignor.)						
Vail, John D., Blairstown, N. J. Indicator for doors	391,215	Oct. 16	1457	388	45	296
Vail, John E. and J. B., Fairfield, Mich. Thrill coupling-pin	381,659	Apr. 24	2042	534	43	433
Vail, Theodore N., Boston, Mass., and J. A. Seely, New York, N. Y. Telephone central-station apparatus	385,974	July 10	943	251	44	192
Vail, Theodore N., Boston, Mass., and J. A. Seely, New York, N. Y. Telephone sub-station apparatus	385,975	July 10	944	251	44	193
Vail, Theodore N., Boston, Mass., and J. A. Seely, New York, N. Y. Telephone central-station apparatus	385,976	July 10	946	251 252	44	193
Vail, Theodore N., Boston, Mass., and J. A. Seely, New York, N. Y. Telephone central-station apparatus	385,977	July 10	950	252 253	44	194
Vail, Theodore N., Boston, Mass., and J. A. Seely, New York, N. Y. Telephone-exchange signaling	385,978	July 10	952	253	41	195
Vail, Theodore N., Boston, Mass., and J. A. Seely, New York, N. Y. Telephone central-station apparatus	394,230	Dec. 11	732	194	45	1220
Vaile, John H., Dayton, Ohio. Steam pumping-engine	393,943	Dec. 4	303	82, 83	45	1130
Vaie, William T., assignor to J. G. Beard, Toronto, Ontario, Canada. Barrel-making machine	384,730	June 19	1330	347	43	1390
Vaentine & Company. (See Homer, Charles S., assignor.)						
Valentine, Julius S., Albion, Mich. Ox-yoke	382,570	May 8	1052	268	43	720
Valentine, Julius S., Albion, Mich. Clothes-drier	391,347	Oct. 16	1634	432	45	329
Valentine, Sylvester, Hagerstown, Md. Box-frame-bending machine	395,094	Dec. 25	2113	546 547	45	1508

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Valentine, Walter D., San Francisco, Cal. Card-exhibitor .....	378,345	Feb. 21	1510	394	42	806
Valentine, Walter D., San Francisco, Cal., and H. S. Bailey, Denver, Colo.; said Bailey as-signor to said Valentine. Card-exhibitor .....	378,270	Feb. 21	1397	{ 366 367 }	{ 42 42 }	{ 783 783 }
Valiant, George, Toronto, Ontario, Canada. Boot or shoe .....	385,218	June 26	2062	529	43	1544
Valiant, George, Toronto, Ontario, Canada, and C. Dancel, New York, N. Y. Mechanism for stamping or cutting out button-hole dies. ....	385,219	June 26	2064	{ 529 530 }	{ 43 43 }	{ 1545 1545 }
Valind, Joseph, Masonville, Mich. Sled-brake .....	393,731	Nov. 27	2285	600	45	1065
Vallee, John B., Troy, N. Y. Shoulder-strap attachment for molders' lathes .....	390,320	Oct. 2	166	46	45	36
Vallens, Eugene, Chicago, Ill. Cigar-box .....	376,629	Jan. 17	1391	366	42	280
Valentine, Arthur. (See Hyde and Valentine.) .....						
Van Allen Automatic Pitman Manufacturing Company. (See Van Allen, Charles A., assignor.) .....						
Van Allen, Charles A., assignor to Van Allen Automatic Pitman Manufacturing Company, Rochester, N. Y. Flexible pitman .....	392,241	Nov. 6	92	22, 23	45	612
Van Allen, Noah, Chicago, Ill. Door or window stop .....	389,680	Sept. 18	1349	354	44	1341
Van Alstine, Mattie A., Armstrong Springs, Ark. Shoulder-brace .....	393,276	Nov. 20	1390	363	45	879
Van Alstine, Mattie A., Mountain Valley, Ark. Milk-pail .....	394,034	Dec. 4	431	116	45	1153
Van Antwerp, Linford E., and M. L. Norton, Susquehanna, Pa. Automatic vehicle-brake. ....	387,022	July 31	2510	660	44	520
Van Arsdale, William O. (See Stocker, William F., assignor.) .....						
Van Benthuyssen, William A., New York, N. Y. Tree-felling saw .....	385,488	July 3	234	60, 61	44	46
Van Brunt, George B., et al. (See Clarke, Francis E., assignor.) .....						
Van Brunt, John C., et al. (See Whalen, Michael H., assignor.) .....						
Van Buren, Robert, and J. J. Powers, Brooklyn, N. Y. Electric conduit .....	376,562	Jan. 17	1182	311	42	241
Van Choate, Silvanus F. (See Beesly, Charles W., assignor.) .....						
Van Coughnet, Charles B., Pamela, N. Y. Scroll-sawing machine .....	392,083	Oct. 30	2685	731	45	557
Van Court, Daniel P., Mohawk, N. Y. Elevator .....	390,535	Oct. 2	478	125	45	97
Van de Velde, Bernard F., et al. (See Bühler, Jacob, assignor.) .....						
Van de Velde, Frank B., et al. (See Bühler, Jacob, assignor.) .....						
Van de Velde, Henry J., et al. (See Bühler, Jacob, assignor.) .....						
Van den Steen, Leon, Laeken, Brussels, Belgium. Composition for artificial marble. ....	386,039	July 10	1035		44	211
Van der Hylen, Georges, assignor of one-half to H. F. Leo, Philadelphia, Pa. Water cooler and filter .....						
Van Depoele, Charles J., Chicago, Ill. Carbon contact or commutator-brush .....	384,801	June 19	1432	376	43	1411
Van Depoele, Charles J., Chicago, Ill. Closed conduit for electric-railway conductors .....	390,921	Oct. 9	1011	266	45	205
Van Depoele, Charles J., Chicago, Ill. Underground conduit for electric conductors .....	393,275	Nov. 20	1602	420	45	922
Van Depoele, Charles J., Chicago, Ill. Underground conduit for electric conductors .....	393,276	Nov. 20	1605	420	45	922
Van Depoele, Charles J., Chicago, Ill. Turn-out and crossing for underground conduits. ....	393,277	Nov. 20	1608	421	45	923
Van Depoele, Charles J., Chicago, Ill. Electric motor .....	394,035	Dec. 4	432	117	45	1154
Van Depoele, Charles J., Chicago, Ill. Duplex electromotor .....	394,036	Dec. 4	435	117	45	1154
Van Depoele, Charles J., Chicago, Ill. Safety device for electric motors .....	394,417	Dec. 11	1012	266	45	1274
Van Depoele, Charles J., Chicago, Ill. Safety device and signal for electric motors or generators .....	394,525	Dec. 11	1168	304	45	1302
Van Depoele, Charles J., Lynn, Mass. Switch for overhead conductors .....	393,278	Nov. 20	1611	{ 421 422 }	{ 45 45 }	{ 923 923 }
Van Depoele, Charles J., Lynn, Mass. Arched suspender for overhead electric conductors. ....	393,317	Nov. 20	1661	439	45	933
Van Depoele, Charles J., Lynn, Mass. Constant upward-pressure contact for overhead conductors .....						
Van Depoele, Charles J., Lynn, Mass. Duplex upward-pressure contact .....	394,037	Dec. 4	437	118	45	1154
Van Depoele, Charles J., Lynn, Mass. System of suspending electric conductors .....	394,038	Dec. 4	440	118	45	1155
Van Depoele, Charles J., Lynn, Mass. System of suspending electric conductors .....	394,039	Dec. 4	443	119	45	1155
Van Derveer & Holmes Biscuit Company. (See Fitz Gerald, Augustine F., assignor.) .....						
Van Deusen, Walter J., Willoughby, Ohio. Handle for baskets .....	390,536	Oct. 2	479	125	45	97
Van Diest, Albert, et al. (See Sherman, Henry, assignor.) .....						
Van Doren, Francis, and L. Lovejoy, Adrian, Mich. Fence-machine .....	379,426	Mar. 13	816	{ 219 220 }	{ 42 42 }	{ 1127 1127 }
Van Dorn, William T., Lincoln, Nebr. Car-coupling .....	378,813	Feb. 28	2190	583	42	946
Van Dorn, William T., Lincoln, Nebr. Toasting-pan .....	386,170	July 17	1228	328	44	256
Van Dorston, Alvin W., South Bend, Ind. Car-bumper .....	378,532	Feb. 28	1780	470	42	868
Van Dusen, James P., Benton Harbor, Mich. Holdback for vehicles .....	388,466	Aug. 28	1962	526	44	970
Van Duzer, Edward M., Newark, N. J. Mason's float-handle .....	376,217	Jan. 10	701	187	42	144
Van Everen, Philip F., Brooklyn, N. Y. Book-protector .....	377,968	Feb. 14	949	{ 247 248 }	{ 42 42 }	{ 693 693 }
Van Fleet, Charles G., Troy, Pa. Spring-jointed boat-oar .....	388,467	Aug. 28	1963	526	44	970
Van Fleet, Voorhees T., Somerville, N. J. Apparatus for steaming cloth and other fabrics .....						
Van Gaasbeek, Washington, New York, N. Y. Chimney-protector .....	382,063	May 1	278	73	43	564
Van Gelder, Pieter, Sowerby Bridge, county of York, England. Grain washing and drying machine .....	385,429	July 3	235	61	44	47
Van Gestel, Jean T., New York, N. Y. Machine for covering wire with layers of different materials .....	379,498	Mar. 13	929	250	42	1148
Van Gestel, Jean T., New York, N. Y. Electrode for storage-batteries .....	380,610	Apr. 3	457	130	43	93
Van Gestel, Jean T., New York, N. Y., assignor to Van Gestel Manufacturing Company, of New York. Electric motor .....	388,746	Aug. 28	2354	635	44	1046
Van Gestel, Jean T., New York, N. Y., assignor to Van Gestel Manufacturing Company, of New York. Commutator for dynamo-electric machines .....	388,512	Aug. 28	2020	543	44	982
Van Gestel, Jean T., New York, N. Y., assignor to Van Gestel Manufacturing Company, of New York. Commutator for dynamo-electric machines .....	388,513	Aug. 28	2021	544	44	982
Van Gestel, Jean T., New York, N. Y., assignor to Van Gestel Manufacturing Company, of New York. Electric tram-car .....	388,514	Aug. 28	2022	544	44	982
Van Gestel Manufacturing Company. (See Van Gestel, Jean T., assignor.) .....						
Van Gilder, Somers, Knoxville, Tenn. Harness-pad .....	376,563	Jan. 17	1183	312	42	241
Van Gordon, Edward K., Horsesheds, N. Y. Sleigh-runner .....	385,289	June 26	2185	559	43	1568
Van Guysling, Aaron, Albany, N. Y. Cut-off valve .....	381,190	Apr. 17	1349	361	43	279
Van Hecke, Englebert T., Paris, France. Draft-regulator .....	389,913	Sept. 25	1706	452	44	1420
Van Hoovenbergh, Henry, New York, N. Y. Lock .....	387,833	Aug. 14	954	{ 247 248 }	{ 44 44 }	{ 763 763 }
Van Hook, John L., Round Rock, Tex. Well-bucket .....	388,747	Aug. 28	2355	635	44	1046
Van Horn, Charles, Bethlehem, Pa. Wagon-seat .....	377,540	Feb. 7	289	73	42	550
Van Horn, Vandiver J., Goffs, Kans. Wrench .....	376,564	Jan. 17	1183	312	42	241
Van Horn, William, Piqua, Ohio. Adjustable bracket .....	391,438	Oct. 23	1765	472	45	361
Van Horn, William, assignor of one-half to W. C. Lennox, Piqua, Ohio. Fence .....	376,218	Jan. 16	702	187	42	144
Van Horne, E. A., et al. (See Giles, Julian A., assignor.) .....						
Van Horne, William G. (See Ericson, Charles J., assignor.) .....						
Van Houten, Frank H., Rochester, N. Y. Lathe-chuck .....	382,123	May 1	364	95	43	580
Van Kannel, Theophilus, Philadelphia, Pa. Storm-door structure .....	387,571	Aug. 7	573	150	44	682
Van Keuren, George C., Duquoin, Ill. Pipe-expander .....	381,094	Apr. 10	1217	326	43	245
Van Pelt, John K., Nashville, Tenn. Vehicle-wheel .....	384,492	June 12	949	246	43	1309
Van Riper, George, Albion, assignor, by mesne assignments, to T. Rowland's Sons, Chel-tonham, Pa. Apparatus for forming wooden scoops or shovels .....	390,725	Oct. 9	732	{ 192 193 }	{ 45 45 }	{ 153 153 }

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Van Kysseberghe, François, Brussels, Belgium. Harmonic telegraphy	388,091	Aug. 21	1364	369	44	850
Van Kysseberghe, François, Brussels, Belgium. Telegraph-receiver	388,092	Aug. 21	1366	369	44	851
Van Slyke, Reuben N., Hawpatch, Ind. Tire-tightener	380,538	Apr. 3	350	100	43	72
Van Tine, Charles M., Matteawan, N. Y. Ordnance	380,368	Apr. 3	95	29	43	21
Van Tuyl, Andrew P., Jr. (See Lincoln, Charles L., assignor.)						
Van Valkenburg, Randall T., Manchester, Mich. Chemical engine	383,503	May 29	2440	647	43	1013
Van Valkenburg, Wells, <i>et al</i> (See Taber, Loyal C., assignor.)						
Van Vleck, George H. (See Pitt, William H., assignor.)						
Van Voorhis, Charles E., Chicago, Ill. Employe's time-recorder	377,341	Jan. 31	2349	680	42	478
Van Vorst, Sylvester. (See Magee and Van Vorst.)						
Van Wagoner, Horace, Newark, N. J. Horse-collar	381,191	Apr. 17	1350	361	43	279
Van Wagoner & Williams Company. (See Blue, Louis F., assignor.)						
Van Wart, William H., Stonington, Conn. Easel	385,536	July 3	307	78	44	62
Van Wart, William H., Stonington, Conn. Nut-lock for valves	385,888	July 10	841	222	44	172
Van Wart, William H., Stonington, Conn. Nut-lock	385,889	July 10	842	222	44	172
Van Wie, Peter G., Cleveland, Ohio. Gas-stove		Aug. 14	709	182	44	716
Van Winkle, Asa T., Brooklyn, N. Y., assignor of two-thirds to J. Maulbetsch and G. D. Whittemore, Newark, N. J. Violin-case	386,442	July 17	1635	430	41	338
Van Wormer, Charles, Auburn, Ind. Mole and gopher trap	388,515	Aug. 28	2024	544	44	983
Van Zandt, George, Chicago, Ill. (See Filstrup and Van Zandt.)						
Van Zandt, George, Chicago, Ill. Hook for drum-head strainers	382,124	May 1	365	95	43	580
Van Zandt, George, Chicago, Ill. Drum-head strainer	387,023	July 31	2511	660	44	520
Van Zandt, Jacob, Syracuse, N. Y. Cable coaster, carrier, and ferrier	378,154	Feb. 21	1221	318 319	42	751
Vance, James R., Geneva, N. Y. Tube-cutter	380,777	Apr. 10	713	197	43	151
Vance, John D., assignor to Eureka Foundry Company, Cincinnati, Ohio. Fire-place damper	389,424	Sept. 11	947	248	44	1261
Vance, Samuel B. H., New York, N. Y. Combined gas and electric-light fixture	376,617	Jan. 17	1273	333	42	258
Vance, Samuel B. H., New York, N. Y. Combined gas and electric-light fixture	383,158	May 22	1915	500	43	908
Vance, Samuel B. H., New York, N. Y. Combined gas and electric-light fixture	383,332	May 22	2162	572	42	955
Vandecar, William D., Merrill, Wis. Belt-clamp	380,150	Mar. 27	1923	513	42	1358
Vandegrift, Nathaniel W. (See Armstrong and Vandegrift.)						
Vandegrift, Theodore F., Noah, and A. L. Maple, Shelbyville, Ind. Fence-machine	383,785	May 29	2857	752	43	1006
Vanden, Francis M. (See Markle, Walter, assignor.)						
Vandenbrock, Albert G. (See Unterbrink and Vandenbrock.)						
Vandenburgh, Limbrick W., Americas, Kans. Harness back-pad	380,064	Mar. 27	1801	481	42	1334
Vandenburgh, Origen, New York, N. Y. Buoyant propeller	377,181	Jan. 31	2104	555	42	435
Vandercrook, Mark, and R. T. Bush, Gallatin, Tenn. Strap-clasp	376,996	Jan. 24	1844	487	42	375
Vanderhoof, Orson G., Lexington, Ky. Iron fence	386,567	July 24	1830	483	44	382
Vanderhoof, Maurice A., Ronkonkoma, assignor of one-half to A. Bechtold, Brooklyn, N. Y. Spectacle-temple	384,481	June 12	948	245	43	1309
Vandewater, Fred, <i>et al</i> . (See Taylor, Miles D., assignor.)						
Vanduzen, Benjamin C., Winton Place, Ohio. Force-pump	377,054	Jan. 31	1927	506	42	399
Vannmeter, James W., Oakville, Tex. Pump	389,725	Sept. 18	1418	370	44	1356
Vannatter, Albert, and A. J. August, Lawson, Colo. Fuse-cutter and cap-crimper	376,493	Jan. 17	1090	286	42	224
Vannett, Jasper, assignor of one-third to G. S. Yingling, Tiffin, Ohio. Oscillating hook for sewing-machines	388,323	Aug. 21	1750	468	44	924
Vannett, Jasper, assignor of one-third to G. S. Yingling, Tiffin, Ohio. Sewing-machine	388,324	Aug. 21	1753	468	44	924
Vanover, Joseph M., assignor of one-half to A. I. Abbott, Terre Haute, Ind. Sliding or rolling gate	379,918	Mar. 20	1583	417	42	1281
Vansant, Joseph A., and F. S. Anderson, Easton, Md. Electric regulator	387,463	Aug. 7	391	101	44	649
Vansant, Joseph A., and F. S. Anderson, Easton, Md. Regulator for electric currents	387,464	Aug. 7	392	102	44	650
Vansickle, Andrew, Gessie, Ind. Tuyoer	386,609	July 24	1966	519	44	409
Vansize, William B., Plainfield, N. J. Telephone-exchange	398,529	Nov. 27	1990	520	45	1006
Vanzant, Ralph E. (See Hatt, Elwood E., assignor.)						
Vare, Thomas W., Trenton, N. J. Metal mold	394,089	Dec. 4	518	139	45	1170
Variety Machine Company. (See Everingham, Edward B., assignor.)						
Varley, John J. (See Barrett and Varley.)						
Vary, Albert R., Marshall, Mich. Horse-power	385,392	July 3	78	22	44	17
Vassiliades, Alexander D., <i>et al</i> . (See Masters, Mark J., assignor.)						
Vassiliades, Basil D., <i>et al</i> . (See Masters, Mark J., assignor.)						
Vassiliades, Constantine D., <i>et al</i> . (See Masters, Mark J., assignor.)						
Vauclair, Samuel M., Philadelphia, Pa. Hoisting-tackle	381,043	Apr. 10	1123	301	43	227
Vaughan, Aaron C., Shane's Crossing, Ohio. Nut-lock	389,027	Sept. 4	323	85	44	1134
Vaughan, Aaron C., Shane's Crossing, Ohio. Nut-lock	391,284	Oct. 16	1554	412	45	314
Vaughan, Amariah, assignor to F. Nippert, Terre Haute, Ind. Rolls for converting old rails into angle-iron	388,382	Aug. 21	1849	491	41	940
Vaughan, Fred A., <i>et al</i> . (See Broyles, George E., assignor.)						
Vaughan, Ira. (See Rood and Vaughan.)						
Vaughan, Phineas W. (See Glidden and Vaughan.)						
Vaughan, Thomas J., Shawano, Wis. Stake and socket for flat cars	389,991	Sept. 25	1813	480	44	1441
Vaughan, William, Torrington, county of Devon, England. Glove	385,154	June 26	1974	505	43	1526
Vaughn, Charles W., <i>et al</i> . (See Gale, Charles E., assignor.)						
Vaughn, James A. (See Brown, David, assignor.)						
Vaughn, James W., Greenville, Pa. Trotting-sulky	389,267	Sept. 11	717	183	44	1216
Vautin, Claude T. J. (See Newbery and Vautin.)						
Vavasseur, Josiah, Bear Lane, Southwark, county of Surrey, assignor to W. G. Armstrong, Mitchell & Co., (limited), Newcastle-upon-Tyne, England. Apparatus for training guns	381,095	Apr. 10	1217	326 327	43	245
Vawter, William L. (See Lakin, David R., assignor.)						
Vawter, William L., <i>et al</i> . (See Pickard and Melson, assignors.)						
Veatch, Nancy E., Gales Creek, Oreg. Hat or bonnet holder	393,595	Nov. 27	2082	546	45	1026
Veazie, Julian. (See Ellery and Veazie.)						
Veeder, Andrew T., Schenectady, N. Y. Chamois-holder	388,800	Aug. 28	2136	658	44	1061
Veerkamp, Florenz L., C. F. Leopold, and W. Darker, Philadelphia, Pa., assignors to Boston Braider Company, of New Hampshire. Braiding-machine	391,929	Oct. 30	2460	664 665	45	513
Vehring, Charles, New York, N. Y. Inkstand and frame	383,199	May 22	1967	516	43	919
Veilleux, Anselm, Somerset, Wis. Hay-press	387,667	Aug. 14	711	183	44	716
Vellie, Henry C., assignor to M. F. Vellie, Poughkeepsie, N. Y. Indicator-stand for medicine-vessels	387,192	July 31	2767	724	44	564
Vellie, Marion F. (See Vellie, Henry C., assignor.)						
Venn, Isaac H., Yonkers, N. Y. Elevator-operating device	390,825	Oct. 9	874	232	45	179
Verdel, Emile F., Memphis, Tenn. Can-machine	386,096	July 10	1123	299	44	228
Vermeulen, John, assignor to B. Frank, New York, N. Y. Making open-twist wire strands	377,415	Feb. 7	109	22	42	515
Vermillion, Reason F., Mitchellsburg, Ky. Feed-cutter	387,126	July 31	2674	699 700	44	548



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Verny, Etienne, Réaumont, France. Lubricator.....	389,915	May 15	1533	402	43	826
Vero, Charles, Atherstone, county of Warwick, England. Manufacture of felt hats.....	392,648	Nov. 13	698	175	45	734
Verrill, William H. (See Renno, Horace L., assignor.)						
Vessot, Samuel, Joliette, Quebec, Canada. Car-axle lubricator.....	382,246	May 1	537	137	43	612
Vesten, Bruno, Dortmund, Westphalia, Germany. Apparatus for lining converters and converter-bottoms.....	375,965	Jan. 3	326	87	42	67
Verstraete, Edmond, Chicago, Ill. Railway-car.....	386,512	July 24	1748	462	44	367
Vessot, Samuel, Joliette, Quebec, Canada. Car-axle lubricator.....	382,246	May 1	537	137	43	612
Vestal, Charles A., Savoy, Tex. Quilting-frame.....	385,078	June 26	1867	477	43	1504
Viaduct Manufacturing Company. (See Hinton, Joseph R. H., assignor.)						
Vian, Mariano, Bilbao, Spain. Electric apparatus for winding clocks.....	383,786	May 29	2860	752	43	1096
Vicken, George P., Cincinnati, Ohio. Machine for cutting moldings.....	375,904	Jan. 3	234	63, 64	42	49
Victor Manufacturing Company. (See Mooley, Henry T., assignor.)						
Victor Safe and Lock Company. (See Spivey, Thomas S., assignor.)						
Viele, William A. (See Fulton and Viele.)						
Vien, Francis X. (See Spolders and Vien.)						
Vienna Wheat Starch Company of West Virginia. (See Spitzer, Sigmund, assignor.)						
Vienney, Jean B., Paris, France. Mirror.....	381,600	Apr. 24	1962	516	43	417
Vierengel, Matthew, Brooklyn, N. Y. Cylinder printing-machine.....	379,188	Mar. 6	456	{ 129 130 }	42	1053
Vierow, Victor, <i>et al.</i> (See Chadbourne; Zebulon L., assignor.)						
Vietmeyer, Henry W., Freeport, Ill., assignor of one-half to Union Foundry, Mansfield, Ohio. Feed-grinding mill.....	379,549	Mar. 13	999	268	42	1162
Vietmeyer, Henry W., assignor of one-half to M. Lorscheider, Columbus, Ohio. Bundle-carrier.....	386,171	July 17	1229	{ 328 329 }	44	256
Vigil, Pedro, and J. N. Revueltas, Mexico, Mexico. Shoal-water indicator.....	389,123	Sept. 4	485	124	44	1163
Villeneuve, George, Pittsfield, Mass. Machine for washing fire-hose.....	391,393	Oct. 16	1702	450	45	341
Vincent, Anson. (See Stone, Henry, assignor.)						
Vincent, Charles R. (See Poyton, Josiah, assignor.)						
Vincent, John, Houlton, Me. Snow-plow.....	383,925	June 5	127	37	43	1145
Vinton, John H., assignor of two-thirds to E. O. Ely, Boston, and G. E. Parker, Chelsea, Mass. Friction-drill.....	378,944	Mar. 6	118	34	42	989
Vinton, John H., Boston, Mass., assignor to Peninsular Novelty Company, Grand Rapids, Mich. Apparatus for making raceways for button-setting machines.....	381,296	Apr. 17	1495	404	43	307
Vinton, John H., Boston, Mass., assignor to Peninsular Novelty Company, Grand Rapids, Mich. Machine for slotting tubes.....	381,297	Apr. 17	1497	404	43	308
Vinton, John H., Boston, Mass., assignor to Peninsular Novelty Company, Grand Rapids, Mich. Making raceways for button-setting machines.....	381,298	Apr. 17	1498	404	43	308
Vinton, John H., Boston, Mass., assignor to Peninsular Novelty Company, Grand Rapids, Mich. Die for button-setting machines.....	382,340	May 8	694	175	43	651
Vinton, John H., Boston, Mass., assignor to Peninsular Novelty Company, Grand Rapids, Mich. Button-setting machines.....	382,341	May 8	695	175	43	651
Vinton, John H., Boston, Mass., assignor to Peninsular Novelty Company, Grand Rapids, Mich. Button-setting machine.....	388,232	Aug. 21	1600	422	44	895
Vinton, John H., Boston, Mass., assignor to Peninsular Novelty Company, Grand Rapids, Mich. Button-setting machine.....	394,231	Dec. 11	734	{ 194 195 }	45	1220
Violet, Francis N., Green Bay, Wis. Mower.....	385,979	July 10	954	253	44	194
Violet, Francis N., assignor of one-half to W. D. Cooke, Green Bay, Wis. Try-square and bevel protractor.....	389,780	Sept. 18	1485	391	44	1370
Viollier, Edouard. (See Becht, Louis, assignor.)						
Viquesney, Benjamin F., Belington, W. Va. Saw-guide.....	389,179	Sept. 4	580	146	44	1179
Virgien, Friedrich, Yonkers, N. Y. Pipe-threading die.....	383,787	May 29	2863	{ 752 753 }	43	1097
Virgil, Almon K., New York, N. Y. Exercising key-board for musicians.....	391,439	Oct. 23	1767	472	45	361
Virgoe, Middleton & Co. (See Pullum, Ernest G., assignor.)						
Vitalis, Baptiste, Cleveland, Ohio. Smoke-stack and attachment.....	393,194	Nov. 20	1484	{ 387 388 }	45	897
Vivarttas, Aloha, West Hoboken, N. J., assignor to E. L. Sergeant, Hartwick, N. Y. Furnace for cremating garbage.....	390,922	Oct. 9	1013	{ 266 267 }	45	205
Vivarttas, Aloha, West Hoboken, N. J., assignor to E. L. Sergeant, Hartwick, N. Y. Adjustable screen.....	393,944	Dec. 4	304	83	45	1131
Vladyska, Joseph, and W. M. Mitchell, Newton, Iowa. Apparatus for cremating filth and sewage.....	379,189	Mar. 6	461	{ 130 131 }	42	1054
Voak, James D., Watkins, N. Y. Ventilating apparatus for railway-cars, factories, &c.....	376,494	Jan. 17	1091	287	42	224
Vogel & Bros., William. (See Charleson, John, assignor.)						
Vogel & Brothers, William. (See Vogel, Henry J., assignor.)						
Vogel & Brothers, William. (See Vogel, William, assignor.)						
Vogel, Charles, San Francisco, Cal. Safety-catch for cable railways.....	383,159	May 22	1916	501	43	909
Vogel, Charles, assignor to W. S. Phelps, San Francisco, Cal. Turn-table for cable railways.....	387,608	Aug. 7	630	164	44	693
Vogel, Fritz, Cologne, Prussia, Germany. Fatty compound for wire-drawing.....	390,269	Oct. 2	99		45	23
Vogel, Henry J., assignor to W. Vogel & Brothers, Brooklyn, N. Y. Torch-yoke.....	391,665	Oct. 23	2067	559	45	426
Vogel Petroleum Heating Company. (See Vogel, William, assignor.)						
Vogel, William, assignor to Vogel Petroleum Heating Company, Chicago, Ill. Steam street-car motor.....	381,192	Apr. 17	1351	{ 361 362 }	43	279
Vogel, William, assignor to Vogel Petroleum Heating Company, Chicago, Ill. Broiler.....	387,609	Aug. 7	631	164	44	694
Vogel, William, assignor to Vogel Petroleum Heating Company, Chicago, Ill. Heating device.....	390,194	Sept. 25	2113	{ 563 564 }	44	1503
Vogel, William, assignor to W. Vogel & Brothers, Brooklyn, N. Y. Nozzle for sheet-metal cans.....	383,840	May 29	2911	779	43	1112
Vogelsang, Alexander, New York, assignor to Vogelsang Screw Propeller Company, Brooklyn, N. Y. Screw-propeller.....	381,193	Apr. 17	1357	363	43	280
Vogelsang Screw Propeller Company. (See Vogelsang, Alexander, assignor.)						
Vogelsong, Julius C. A., Ardmore, Pa. Line-holder for bricklayers.....	391,496	Oct. 23	1846	494	45	379
Vogt, Charles, Harlem, Mo. Flour and meal bin.....	375,966	Jan. 3	328	88	42	68
Vogt, Henry, and R. H. Burns, Brooklyn, N. Y. Feed-water heater.....	394,526	Dec. 11	1170	304	45	1302
Vogtsberger, Emil, Austin, Tex. Harness-saddle.....	393,868	Dec. 4	203	55	45	1110
Volker & Felthousen Manufacturing Company. (See Granger, Almon M., assignor.)						
Volkerts, Olf, Sac City, Iowa. Combination-lock.....	378,027	Feb. 14	1028	269	42	708
Volkmann, John H. (See Stollwerck, Ludwig, assignor.)						
Volkmann, Otto, Köpenick, near Berlin, assignor to W. Fischbach, Berlin, Germany. Combined lamp and cigar-cutter.....	384,881	June 19	1563	406	43	1434
Vollmar, Henry R., Oswego, assignor of one-half to J. H. Lynch, Wichita, Kans. Meat-tenderer.....	387,381	Aug. 7	275	70	44	624
Vollmer, Henry, Manchester, county of Lancaster, England. Button.....	384,007	June 5	244	70	43	1169
Vollschwitz, Rudolph, Hoboken, N. J. Rasp.....	379,620	Mar. 20	1116	296	42	1191

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Doc.	Vol.	Page.
Vollschwitz, Rudolph, Hoboken, N. J. Animal-trap.	393,087	Nov. 20	1333	348	45	867
Volney, Carl W., Tom's River, N. J., assignor to A. S. Fitch, New York, N. Y. Explosive compound	383,420	May 22	2300	.....	43	979
Volta Graphophone Company. (See Hadley, Charles E., assignor.)						
Voltz, George M., St. Joseph, Mo., assignor of one-half to Illinois Street Gas Company, Chicago, Ill. Reservoir for oil-stoves.	389,425	Sept. 11	948	248	44	1261
Voltz, George M., St. Joseph, Mo., and W. P. Butler, Chicago, Ill.; said Voltz assignor to said Butler. Oil-reservoir for street or other lamps	389,426	Sept. 11	949	249	44	1261
Volz, William E., New York, N. Y. Surface-condenser and water-heater	384,944	June 19	1641	426	43	1450
Volz, William E., New York, N. Y. Packing for condenser-tubes	386,048	July 10	1044	278	44	214
Vom Eigen, Benno, Newark, N. J. Pocket-book frame	380,834	Apr. 10	793	217	43	166
Von Alten, Friedrich B., Reinbeck, Prussia, Germany. Car-coupling	391,993	Oct. 30	2553	692	45	531
Von Boeckmann, Eugene, Austin, Tex. Power attachment for treadle-machines	393,131	Nov. 20	1392	363	45	879
Von Bülzingslöwen, Bruno. (See Weck and Von Bülzingslöwen.)						
Von der Kammer, John, Newark, N. J. Switch, circuit-breaker, &c	381,446	Apr. 17	1732	463	43	354
Von Flotow, Wilhelm, and H. Leidig, Dantzic, Prussia, Germany. Drawing tubes	391,994	Oct. 30	2554	692	45	531
Von Förster, Max, Berlin, Germany. Shell	385,332	June 26	2253	577	43	1580
Von Froben, Louis, St. Louis, Mo. Nut-lock	390,631	Oct. 2	598	159	45	120
Von Gersheim, Arthur, Cleveland, Ohio. Composition for artificial stone	390,726	Oct. 9	734	.....	45	154
Von Hefner-Alteneck, Friedrich, and C. Hoffmann, assignors to Siemens & Halske, Berlin, Germany. Dynamo-electric machinery	395,019	Dec. 25	2007	517	45	1486
Von Heyden, F., Nachfolger. (See Kolbe, Carl, assignor.)						
Von Krystoffovitch, Paul, St. Petersburg, Russia. Artificial stone	392,084	Oct. 30	2686	.....	45	557
Von Metzdradt, Hans J., New York, N. Y. Carbon conductor for electric lamps	383,602	May 29	2570	.....	43	1039
Von Metzdradt, Hans J., New York, N. Y. Galvanic-battery fluid	383,677	May 29	2681	.....	43	1063
Von Mitzlaff, Hermann, Potsdam, Prussia, Germany. Hydraulic press	394,527	Dec. 11	1171	{ 304 305 }	45	1302
Von Mitzlaff, Hermann, Potsdam, Prussia, Germany. Hydraulic brick-machine	394,528	Dec. 11	1174	{ 305 306 }	45	1303
Von Pittler, Julius W., Gohlis, Leipsic, Saxony, Germany. Embroidering attachment for sewing-machines.	378,383	Feb. 21	1558	407	42	815
Von Pittler, Julius W., Gohlis, Leipsic, Saxony, Germany. Embroidering attachment for sewing-machines.	378,384	Feb. 21	1559	{ 407 408 }	42	815
Von Pittoni, Max R., Buda-Pesth, Austria-Hungary. Oven	392,649	Nov. 13	699	175	45	734
Von Roden Manufacturing Company. (See Von Roden, Otto, assignor.)						
Von Roden, Otto, New York, N. Y., assignor to Von Roden Manufacturing Company, of New York. Condensing and preserving milk	376,495	Jan. 17	1092	287	42	224
Von Roden, Otto, New York, N. Y., assignor to Von Roden Manufacturing Company, of New York. Apparatus for condensing and carbonating milk	376,496	Jan. 17	1095	287	42	225
Von Roden, Otto, New York, N. Y., assignor to Von Roden Manufacturing Company, of New York. Means for closing milk cans.	376,690	Jan. 17	1393	366	42	220
Von Schade, Adolph, Newport, R. I. Bottle-washer	377,875	Feb. 14	811	207	42	664
Von Stepiski, Fritz, and E. Stenzinger, Trieste, Austria-Hungary. Magazine fire-arm	393,406	Nov. 27	1794	474	45	967
Von Welsbach, Carl A., Vienna, Austria-Hungary, assignor to Welsbach Incandescent Gas Light Company. Compound for making incandescent devices	377,698	Feb. 7	524	135	42	504
Von Welsbach, Carl A., Vienna, Austria-Hungary, assignor to Welsbach Incandescent Gas Light Company. Compound for making incandescent devices	377,699	Feb. 7	526	135	42	504
Von Welsbach, Carl A., Vienna, Austria-Hungary, assignor to Welsbach Incandescent Gas Light Company. Compound for making incandescent devices	377,700	Feb. 7	527	135	42	504
Von Welsbach, Carl A., Vienna, Austria-Hungary, assignor to Welsbach Incandescent Gas Light Company. Obtaining salts of cerium, &c.	377,701	Feb. 7	528	.....	42	504
Vonhof, Paul, Sachsenburg, near Heldrungen, Prussia, Germany. Hoisting-machine	391,440	Oct. 23	1768	472	45	362
Voorhees, Daniel W. (See Wiegand, Hermann, assignor.)						
Voorhees, George W., South Amboy, N. J. Automatic railway-switch	390,999	Oct. 9	1133	300	45	227
Voorhees, Luther C., New York, N. Y. Buckle	386,944	July 31	2400	631	44	498
Voorhees, Stephen F., Adrian, Mich. Folding platform for harvesters	385,537	July 3	308	79	44	462
Voorhees, Frank L., San José, Cal. Rotary engine	390,044	Sept. 25	1893	499	44	1457
Voorhis, Calvin, assignor to himself and A. Shenfield, New York, N. Y. Display-card for suspenders	376,997	Jan. 24	1845	487	42	375
Voorhis, Calvin, assignor to himself and A. Shenfield, New York, N. Y. Suspender-buckle	382,199	May 1	468	120	43	599
Voorhis, Calvin, assignor of one-half to A. Shenfield, New York, N. Y. Spring-hook for suspender-buckles	387,329	Aug. 7	194	50	44	608
Voorhis, Calvin, assignor to himself and A. and H. L. Shenfield, New York, N. Y. Pantaloons-supporter	391,726	Oct. 23	2151	582	45	442
Vornbrock, Frederick, Boston, assignor to Bardwell, Anderson & Co., Cambridge, Mass. Corner brace or bracket for furniture	383,841	May 29	2945	779	43	1113
Vornick, Joseph W., Monmouth, Ill. Two-wheeled vehicle	388,603	Aug. 28	2154	578	44	1008
Vorwerk, Adolph. (See Vorwerk, Carl, assignor.)						
Vorwerk, Carl, assignor to A. Vorwerk, Barmen, Prussia, Germany. Woven skirt-waist-band	383,842	May 29	2946	780	43	1113
Voss, Frederick. (See Hegbom, Marselius, assignor.)						
Voss, John C., Bedford, Ind. Cutting apparatus	379,881	Mar. 20	1531	404	42	1272
Voss, John F., et al. (See Subers, Thomas N., assignor.)						
Voss, Joseph H., Cincinnati, Ohio. Cash indicator and register	387,193	July 31	2768	{ 724 725 }	44	564
Wreeland, Cyrus E., Orange, assignor to E. Alsdorf and G. D. Paul, Newark, N. J. Button-fastener	382,342	May 8	697	175	43	651
Wrooman, William P., Fremont, Ohio. Button-hole cutter	384,653	June 19	1212	320	43	1368
Vulcan Company. (See Kittredge and Adriance, assignors.)						
Vulcan Company. (See Leavitt, Frank M., assignor.)						
Vulcanite Manufacturing Company. (See Niles, William F., assignor.)						
Wachalac, Joseph, Cleveland, Ohio. Match for molding with galed patterns	378,634	Feb. 28	1924	510	42	896
Wächter, Anton, Berlin, Germany. Adjustable device for outlining patterns for garments	383,926	June 5	128	37, 38	43	1115
Waddell, John M., Greenfield, Ohio. Coffee-mill	382,742	May 15	1304	342	43	778
Waddell, Alexander P., Union City, Tenn. Buckle	377,656	Feb. 7	464	118	42	582
Waddell, Montgomery, New York, N. Y. Blasting	386,281	July 17	1404	370	44	288
Waddell, Montgomery, New York, N. Y. Dynamo-electric machine	388,093	Aug. 21	1367	369	44	851
Waddell, Seid, et al. (See Gardner, John H., assignor.)						
Wade, Arthur P. W. (See Hughes and Wade.)						
Wade, Harry R., et al. (See Clouse, Joseph N., assignor.)						
Wade, James J. (See Boyd and Wade.)						
Wade, James R., St. Louis, Mo. Steam-trap	378,482	Feb. 28	1711	451	42	854
Wade, William W. (See Pierce and McKereher, assignors.)						
Wadleigh, Joseph, Milk's Grove, Ill. Car-coupling	383,504	May 29	2442	647	43	1013

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Wadsworth, Clandius, Brooklyn, assignor to Unexcelled Fireworks Company, New York, N. Y. Apparatus for charging fire-works.....	376,691	Jan. 17	1394	367	42	280
Waelde, George F., and H. G. Cery, Brooklyn, N. Y. Machine for puncturing sheet metal.....	388,604	Aug. 8	2155	578	44	1008
Waer, Lois M., J. H. Phillips, and W. S. Kengla, Tucson, Ariz. Ter. Tanning.....	375,845	Jan. 3	160	.....	42	36
Waespi, Jacob. (See Fretz and Waespi.)						
Waffenfabrik Mauser. (See Mauser, Paul, assignor.)						
Wagaman, James J., Carrollton, Mo. Hay-stacker.....	387,934	Aug. 14	1121	299	44	796
Wagandt, Charles L., Baltimore, Md. Soldering-tool.....	389,726	Sept. 18	1419	370	44	1356
Wagandt, Charles L., Baltimore, Md. Soldering-tool.....	390,045	Sept. 25	1894	499	44	1456
Wagandt, Charles L., and J. S. Hull, Baltimore, Md. Soldering-tool.....	379,141	Mar. 6	404	114	42	1042
Wagg, Solomon R., Neenah, Wis. Lining for pulp-digesters.....	390,727	Oct. 9	735	193	45	154
Waggoner, Edward P., assignor of one-half to Pierce, Butler & Pierce Manufacturing Company, Syracuse, N. Y. Vent-plug for steam-radiators.....	379,260	Mar. 13	573	159	42	1080
Waggoner, Edward P., assignor of one-half to Pierce, Butler & Pierce Manufacturing Company, Syracuse, N. Y. Vent-plug for steam-radiators.....	386,670	July 24	1967	519	44	409
Waggoner, Edward P., assignor of one-half to Pierce, Butler & Pierce Manufacturing Company, Syracuse, N. Y. Pipe-collar.....	386,671	July 24	1969	519	44	410
Wagner, Adolph H., Milwaukee, Wis. Split pulley.....	390,102	Sept. 25	1983	527	44	1478
Wagner, Charles E., Holmesburg, Pa. Wagon-fender.....	387,702	Aug. 14	768	196	41	726
Wagner, Emil, Washington, D. C. Bird-cage spring.....	382,571	May 8	1053	269	43	721
Wagner, Frank, Cleveland, Ohio. Apparatus for enbalming.....	383,505	May 29	2442	648	43	1013
Wagner, Frank C., Ann Arbor, Mich. Electric meter.....	393,132	Nov. 20	1392	364	45	879
Wagner, Franz X., New York, N. Y. Type-writing machine.....	393,318	Nov. 20	1664	439 440	45	933
Wagner, Henry, <i>et al.</i> (See Rink, Richard L., assignor.)						
Wagner, Joseph F. (See Determann, John B., assignor.)						
Wagner, Paul A. (See Eckermann, Fred, assignor.)						
Wagner, Philip, New York, N. Y. Brush.....	383,506	May 29	2444	648	43	1013
Wagner, Walter. (See McDonald and Wagner.)						
Wahl, Christian, <i>et al.</i> (See Hendey, Arthur, assignor.)						
Wahl, Louis, <i>et al.</i> (See Hendey, Arthur, assignor.)						
Wahlert, Henry A., assignor to American Brake Company, St. Louis, Mo. Hose-coupling.....	383,160	May 22	1917	501	43	909
Wahlert, Henry A., assignor to American Brake Company, St. Louis, Mo. Locomotive-brake.....	392,242	Nov. 6	94	23	45	612
Wahlström, Carl P. and F., St. Paul, Minn. Releasing device.....	392,704	Nov. 13	775	196	45	750
Wahlström, Frank. (See Wahlström, Carl P. and F.)						
Waigle, George. (See Snyder and Waigle.)						
Wailes, Josiah S., Florence, Kans. Clothes-line.....	385,686	July 3	526	137	44	103
Waine, David and I., Willenhall, county of Stafford, England. Padlock.....	380,961	Apr. 10	995	264	43	202
Waine, Isaac. (See Waine, David and I.)						
Wainwright, Charles D. (See Pratt and Wainwright.)						
Wainwright Manufacturing Company. (See Pratt and Wainwright, assignors.)						
Wainwright, Samuel. (See Gissing, Samuel, assignor.)						
Wait, Alfred C. (See Drake and Wait.)						
Waite, Benjamin C., Brooklyn, N. Y. Machine for cutting, sanding, and rolling roofing-felt.....	380,065	Mar. 27	1802	481 482	42	1334
Waite, Charles H., New Bedford, and G. D. Brown, Fairhaven, assignors to C. F. Borden, New Bedford, Mass. Toboggan.....	390,632	Oct. 2	599	159	45	120
Waite, Charles N. (See Lee and Waite.)						
Waite, Edward C. (See Perry, Calvin E., assignor.)						
Waite, Gilman. (See French, Erastus S., assignor.)						
Waite, Gilman. (See Nichols John, assignor.)						
Waite, Henry E., <i>et al.</i> (See Ethridge, Martin V. B., assignor.)						
Waith, George L., assignor, by mesne assignments, to Germania Bottle Company, Philadelphia, Pa. Bottle-stopper.....	379,919	Mar. 20	1584	417	42	1282
Wakefield, James C., Bayonne, N. J. Safety pocket-spring.....	379,347	Mar. 13	698	189	42	1104
Wakefield Rattan Company. (See Henry, Fred H., assignor.)						
Wakefield, William E., Chicago, Ill. Collapsible draw-bar pattern.....	392,243	Nov. 6	95	24	45	612
Walcott, Henry, Rochester, Vt. Cover for sap-buckets.....	380,958	Apr. 10	991	262	43	202
Walcott, Henry, Rochester, Vt. Cover for sap-buckets.....	390,728	Oct. 9	738	193	45	154
Wald, Max, New York, N. Y. Neckscarf.....	375,967	Jan. 3	330	88	42	68
Walden, Frank D., Jeffersonville, Ind. Shoe-upper-turning machine.....	380,959	Apr. 10	992	263	43	202
Walden, Otto, Wheeling, W. Va. Coffee-roaster.....	377,443	Feb. 7	145	32	42	522
Waldkircher, Donat, Sandusky, Ohio. Pump.....	380,466	Apr. 3	234	63	43	48
Waldo, Charles P., Cincinnati, Ohio. Combined extensible sofa and bed.....	382,743	May 15	1305	342 343	43	778
Waldorf, George M. (See Kochsmeier and Waldorf.) (Reissue.)						
Waldorf, George M., assignor to R. H. Wiles, Freeport, Ill. Spring-hinge.....	389,865	Sept. 18	1628	430	44	1397
Waldorf, Martin V. B. (See Fowler and Waldorf.)						
Waldorf, Martin V. B., Wolcott, N. Y. Spring attachment for vehicles.....	394,624	Dec. 18	1348	352	45	1349
Waldron, Edwin, Cobleskill, N. Y. Car-coupling.....	391,098	Oct. 16	1299	346	45	265
Waldron, John, <i>et al.</i> (See Murphy, Albert L., assignor.)						
Waldron, John, New Brunswick, N. J. Winding-roll for winding paper and other fabrics.....	385,026	June 26	1780	460	43	1487
Waldron, Warren B., and G. C. Boller, Folsom City, Cal. Tamping-tool.....	376,565	Jan. 17	1184	315	42	242
Waldron, Warren B., and G. C. Boller, Folsom City, Cal. Seal-lock.....	379,348	Mar. 13	698	190	42	1104
Waldron, Warren B., and G. C. Boller, Folsom City, Cal. Attachment for tamping-tools.....	393,945	Dec. 4	305	84	45	1131
Wales, Edward R., <i>et al.</i> (See Grant, Albert E., assignor.)						
Wales, Walter S., Syracuse, N. Y. Fare-box chute.....	384,654	June 19	1213	320	43	1368
Walden, Samuel, Bexhill, county of Sussex, England. Eccentric.....	389,268	Sept. 11	718	183	44	1216
Walker, A. B. (See Langstrom, Albert, assignor.)						
Walker, Albert H., Hartford, Conn. Sea-oiling cartridge.....	380,369	Apr. 3	97	29	43	92
Walker, Albert H., Hartford, Conn. Sea-oiling projectile.....	380,370	Apr. 3	99	30	43	92
Walker, Albert H., Hartford, Conn. Projector for sea-oiling shells.....	380,371	Apr. 3	100	30	43	92
Walker, Albert H., Hartford, Conn. Projector for sea-oiling shells.....	381,732	Apr. 24	2148	502	43	454
Walker, Albert H., Hartford, Conn. Projector for sea-oiling shells.....	381,733	Apr. 24	2148	502	43	454
Walker, Albert H., Hartford, Conn. Sea-oiling projectile. (Reissue).....	10,958	Sept. 4	588	149	44	1182
Walker, Albert H., Hartford, Conn. Sea-oiling projectile.....	390,729	Oct. 9	739	194	45	154
Walker, Albert H., assignor to C. C. Clapp, Hartford, Conn. Plumber's air-cushion.....	381,731	Apr. 24	2146	502	43	453
Walker, Alfred, assignor of one-half to F. Adams, San Luis Obispo, Cal. Drill-jar-reamer.....	389,347	Sept. 11	832	212	44	1239
Walker, Benjamin F., Warren, Pa. Cuff-holder.....	386,945	July 31	2401	631	44	498
Walker, Charles, <i>et al.</i> (See Ford, William R., assignor.)						
Walker, Chauncey L. S., Newark, N. J. Machine for forming saw-handles.....	382,064	May 1	280	74	43	565
Walker & Co. (See King, John T., assignor.)						
Walker, Cyril. (See Cattell and Summers, assignors.)						
Walker, Cyril, and W. Allsopp, Wolverhampton, county of Stafford, England; said Allsopp assignor to said Walker. Animal-trap.....	379,087	Mar. 6	331	95	42	1023

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Walker, David, Newark, N. J. Stair-carpet fastener .....	394,315	Dec. 11	867	229	45	1247
Walker, Donald, Caledonia, N. Y. Blanket-clasp .....	387,834	Aug. 14	957	248	44	764
Walker, Edward, and D. Williams, Cohoes, N. Y. Making cotton-batting .....	382,916	May 15	1334	402	43	826
Walker, Edward, and D. Williams, Cohoes, N. Y. Machine for making cotton-batting .....	390,923	Oct. 9	1015	267 268	45	205
Walker, Edward A., Philadelphia, Pa. Metal-shaping machine .....	379,142	Mar. 6	405	114	42	1042
Walker, Edward W. (See Gore, Ru Ton, and Kelley, assignors.)						
Walker, Edward W., et al. (See Gore, Henry A., assignor.)						
Walker, Edward W., et al. (See Ru Ton, Hiram W., assignor.)						
Walker, Edwin, assignor to E. Walker Tool Company, Erie, Pa. Cork-extractor .....	377,790	Feb. 14	700	176	42	644
Walker, Elias C., Calmar, Iowa. Postal date-holder .....	391,216	Oct. 16	1458	339	45	297
Walker, Enos L., St. Louis, Mo., assignor of one-half to G. Hoyt, Brooklyn, N. Y. Making egg-cases .....	380,960	Apr. 10	993	263	43	202
Walker, Enos L., St. Louis, Mo., assignor of one-half to G. Hoyt, Brooklyn, N. Y. Bottle-case .....	388,325	Aug. 21	1754	468 469	44	924
Walker, Francis H., assignor to M. M. Walker, Chicago, Ill. Folding bed .....	385,736	July 10	603	156	44	125
Walker, Francis M. (See Smith and Walker.)						
Walker, George F. (See Hall, David S., assignor.)						
Walker, George S., et al. (See Longwell, Harlin, assignor.)						
Walker, George S., Elkland, Pa. Friction-feed for drilling or boring machines .....	393,674	Nov. 27	2211	579	45	1051
Walker, George W., Malden, Mass. Cooking-stove .....	377,471	Feb. 7	186	44	42	531
Walker, George W., Malden, Mass. Cook-stove .....	387,274	Aug. 7	106	28, 29	44	593
Walker, George W., Bethlehem, Pa. Electrical distribution by storage-batteries .....	386,225	July 17	1326	350	44	273
Walker, Harlan P., assignor of one-half to H. H. Phillips, Boulder, Colo. Gato .....	380,232	Mar. 27	2034	543	42	1380
Walker, Harry, assignor to Clarke & Walker, Denver, Colo. Cigar-box .....	394,945	Dec. 18	1888	488	45	1454
Walker, James, Chicago, Ill. Burial-casket .....	381,194	Apr. 17	1358	363	43	280
Walker, James B., et al. (See Ford, William R., assignor.)						
Walker, James M. (See Pratt and Walker.)						
Walker, John. (See Salter and Walker.)						
Walker, John, Cleveland, Ohio. Drum for cable railways .....	387,024	July 31	2513	660 661	44	520
Walker, John, Cleveland, Ohio. Driving mechanism for endless-cable railways .....	387,835	Aug. 14	958	248 249	44	764
Walker, John F., Greenfield, Ind. Apparatus for heating wagon-tires .....	385,584	July 3	379	98	44	75
Walker, Joseph B., Trezevant, Tenn. Wagon-brake .....	381,665	Apr. 24	2353	610	43	491
Walker, M. M. (See Walker, Francis H., assignor.)						
Walker, Philetus. (See Tichenor and Walker.)						
Walker, Sarah C. (See Anderson, Alexander, assignor.)						
Walker, Thomas. (See Norton and Millar, assignors.)						
Walker, Thomas, Yorkville, Ill. Cultivating-plow .....	388,935	Sept. 4	193	51	44	1109
Walker Tool Company, E. (See Walker, Edwin, assignor.)						
Walker, William, Jermy, Pa. Car-stop .....	392,767	Nov. 13	877	294	45	770
Walker, William B., assignor to himself and J. R. Edtlemon, Nevada, Mo. Horse-detacher .....	385,490	July 3	236	61, 62	44	47
Walker, William C. (See McKinney, Charles B., assignor.)						
Walker, William E., and G. E. Wilbur, Taunton, Mass. Heating-stove .....	381,096	Apr. 10	1218	327	43	246
Walker, William H., Milford, Conn. Die for welding draft-eyes to hames .....	376,998	Jan. 24	1845	488	42	375
Walker, William H., Milford, Conn. Die for attaching terrets to hames .....	381,447	Apr. 17	1734	463	43	354
Walker, William H., Milford, Conn. Attaching terrets to hames .....	384,406	June 12	850	221	43	1290
Walker, William H., Martinez, Ga. Safety-guard for car-trucks .....	385,155	June 26	1975	505	43	1526
Walker, William H., Greenwich, Mass. Chair .....	385,890	July 10	842	222	44	172
Wall, Enos A., Salt Lake City, Utah Terr. Ore-concentrator .....	380,233	Mar. 27	2036	543	42	1381
Wall, Franklin J. (See Wilson, Riley P., assignor.)						
Wall, Howard C., et al. (See Kearney, William F., assignor.)						
Wallace, Albert D., Wilmet, assignor to J. A. Putt, Marlborough, Ohio. Bag-holder .....	393,407	Nov. 27	1797	475	45	968
Wallace, J. Bennett, Chicago, Ill. Vapor-stove .....	380,611	Apr. 3	458	130	43	93
Wallace, J. Bennett, assignor to G. M. Clark & Company, Chicago, Ill. Generating vapor-burner .....	378,120	Feb. 21	1162	302 303	42	742
Wallace, J. Bennett, assignor to G. M. Clark & Company, Chicago, Ill. Vapor-stove .....	382,021	May 1	212	56	43	552
Wallace, J. Bennett, assignor to G. M. Clark & Company, Chicago, Ill. Metal joint for hangers, &c. ....	380,028	Sept. 4	321	86	44	1134
Wallace, James E., and C. D. Reese, La Crosse, Wis. Extension-trestle .....	380,539	Apr. 3	351	100	43	72
Wallace, James E., and C. D. Reese, La Crosse, Wis. Extension-trestle .....	390,103	Sept. 25	1984	527	44	1476
Wallace, John B., assignor to Electrical Supply Company, Ansonia, Conn. Carbon battery .....	3 2,836	Nov. 13	981	252	45	791
Wallace, John M., assignor to J. W. Trisler, St. Louis, Mo. Steering apparatus .....	380,467	Apr. 3	236	61	43	48
Wallace, John O., Belfast, county of Antrim, Ireland. Apparatus for breaking, scuteling, and cleaning flax, &c. ....	385,737	July 10	605	156 157	44	125
Wallace, Lewis. (See Fackenthal and Wallace.)						
Wallace, Robert, Wallingford, Conn. Dies for thickening blanks for spoons or forks .....	386,672	July 24	1969	520	44	410
Wallace, Robert J., Denver, Colo. Paper-holder for duplicating devices .....	382,326	Aug. 21	1755	469	44	925
Wallace, Simon S., et al. (See Odorizzi, Joseph, assignor.)						
Wallace & Sons. (See Bryant, Edson L., assignor.)						
Wallace & Sons. (See Bryant and Truimphour, assignors.)						
Wallace & Sons. (See Richardson, Henry D., assignor.)						
Wallace, Thomas J., assignor of one-half to W. H. Ehlers, New York, N. Y. Retainer for umbrella or parasol runners .....	394,418	Dec. 11	1014	266	45	1274
Wallace, William, Ansonia, Conn. Preparing spools of wire for the market .....	387,836	Aug. 14	958	249	44	764
Wallace, William, New York, N. Y. Window .....	390,270	Oct. 2	100	28, 29	45	23
Wallace, William J. (See Fleming, John, assignor.)						
Wallace, William T., Troy, Tex. Hair-tonic .....	386,617	July 24	1891		44	395
Waller, Edgar S., et al. (See Peacock, John W., assignor.)						
Waller, George A. (See Hitchcock, Theron S., assignor.)						
Wallick, Washington, Philadelphia, Pa. Clamp for button-hole sewing-machines .....	385,585	July 5	380	98	44	76
Wallis, Harry E. (See Wallis, Thomas, T. W., and H. E.)						
Wallis, James W., Memphis, Ala. Cotton-picker .....	378,635	Feb. 28	1924	510 511	42	896
Wallis, James W., Birmingham, Ala. Cotton-picker .....	394,316	Dec. 11	868	229 230	45	1247
Wallis, John M., near Queenstown, Md. Cleaning-strainers of locomotive feed-pipes .....	387,668	Aug. 14	713	183	44	717
Wallis, John M., near Queenstown, Md. Locomotive truck-wheel and driver box .....	393,045	Nov. 20	1282	332	45	858
Wallis, Thomas, T. W., and H. E., Janesville, Wis. Cabinet-bath .....	379,143	Mar. 6	406	114 115	42	1043
Wallis, Traiton W. (See Wallis, Thomas, T. W., and H. E.)						
Wallstrom, John H., Rockford, Ill. Limekiln .....	380,706	Apr. 10	604	166	43	130

*Alphabetical list of patentees—Continued.*

Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Wallwork, Roughsedge, assignor to J. W. Shepherd and W. Ayrton, Manchester, county of Lancaster, England. Mechanism for testing yarns or threads	379,088	Mar. 6	332	{ 95 96 97 }	42	1028
Walmsley, Robinson. (See Watson, Samuel, assignor.)						
Walpole, Franklin D., McKenzie, Tenn. Oil-can	384,802	June 19	1433	376	43	1411
Walpuski, Charles, Brooklyn, N. Y. Copying-pencil	376,456	Jan. 17	1038		42	214
Walrath, Austin, Nevada City, Cal. Paving and roofing compound	376,172	Jan. 10	639		42	134
Walrath, Edward, La Fargeville, N. Y. Holdback for vehicles	387,935	Aug. 14	1122	299	44	796
Walser, Charles J. (See Asmus, Edward G., assignor.)						
Walsh, Edward, Jr., St. Louis, Mo. Glass shingle	377,588	Feb. 7	350	{ 90 91 }	42	562
Walsh, Edward, Jr., St. Louis, Mo. Apparatus for condensing metallic zinc	389,617	Sept. 18	1243	{ 325 326 }	44	1322
Walsh, Edward, Jr., St. Louis, Mo. Condensing metallic zinc from the vapors or fumes arising in the process of zinc-smelting	389,618	Sept. 18	1245	316	44	1322
Walsh, Francis A., Milwaukee, Wis. Sheet-metal pail	380,151	Mar. 27	1924	523	42	1352
Walsh, Francis A., Milwaukee, Wis. Seaming-machine for sheet-metal vessels	382,499	May 8	937	{ 238 239 }	43	697
Walsh, Francis A., Milwaukee, Wis. Seaming-machine	382,572	May 8	1054	269	43	721
Walsh, Francis A., Milwaukee, Wis. Sheet-metal vessel	383,507	May 29	2444	648	43	1013
Walsh, James, Jr., Philadelphia, Pa. Gripping mechanism for cable railways	385,980	July 10	955	253	44	195
Walsh, John, Mansfield, Ohio. Car-brake	391,217	Oct. 16	1459	389	45	297
Walsh, John H., Boston, Mass. Machine for making multitubular pipe	395,095	Dec. 25	2115	547	45	1509
Walsh, John W., assignor to M. E. Walsh, Troy, N. Y. Rolling-mill guide	385,434	July 3	150	40	44	31
Walsh, Mary E. (See Walsh, John W., assignor.)						
Walsh, Michael H., Boston, Mass. Carpenter's rule	388,605	Aug. 28	2156	570	44	1008
Walsh, Richard P., assignor of one-fourth to M. D. Degge, St. Louis, Mo. Cable railway	390,104	Sept. 25	1985	{ 527 528 }	44	1477
Walsh, Richard P., assignor of one-fourth to M. D. Degge, St. Louis, Mo. Cable railway	394,040	Dec. 4	447	120	45	1156
Walter, Adolph, Athens, Ohio. Die for forging shifting-rails	394,232	Dec. 11	737	195	45	1221
Walter, Edward, Buffalo, N. Y. Stove-grate	381,299	Apr. 17	1500	404	43	308
Walter, Hugo, Cincinnati, Ohio, assignor to National Galvanic Battery Company, of New York. Galvanic battery	378,121	Feb. 21	1164	303	42	742
Walter, Hugo, assignor to J. R. Murdock, Cincinnati, Ohio. Secondary battery	392,244	Nov. 6	96	24	45	613
Walter, Hugo, and W. E. H. Marsh, Cincinnati, Ohio, assignors to National Galvanic Battery Company, of New York. Galvanic battery	378,122	Feb. 21	1165	303	42	742
Walter, William G. (See Dawes and Walter.)						
Walter, William P., Newton, Kans. Flue-stopper	391,870	Oct. 30	2373	644	45	496
Walters, Abraham P., et al. (See Riding, William, assignor.)						
Walters, Almer B., Philadelphia, assignor of one-half to J. H. Black, Columbia, Pa., and D. L. Cliver, Camden, N. J. Overshoe	384,483	June 12	949	246	43	1309
Walters, Charles F., Prospect, N. Y. Suspender-buckle	387,465	Aug. 7	395	102	44	650
Walters, William J., Prospect, N. Y. Cuff-holder	376,457	Jan. 17	1039	272	42	214
Walters, William J., Prospect, N. Y. Suspender-buckle	381,309	Apr. 17	1501	405	43	308
Walton, Edward. (See Edwards and Walton.)						
Walton, Edward. (See Wilson and Walton.)						
Walton, John O., Belle Vernon, Ohio. Combined bridle and halter	384,407	June 12	851	221	43	1291
Walton, Joseph J., Newark, N. J., assignor to Walton Manufacturing Company, New York, N. Y. Punch	385,687	July 3	528	138	44	104
Walton Manufacturing Company. (See Walton, Joseph J., assignor.)						
Walton, William, assignor one-half to A. G. Jennings, Brooklyn, N. Y. Burner for steam-boiler heating apparatus	386,568	July 24	1831	483	44	382
Walzer, Justin, Chaux-de-Fonds, Switzerland. Striking-watch	383,260	May 22	2067	542	43	938
Wands, John C., St. Louis, Mo. Car-door	382,917	May 15	1535	402	43	826
Wanzer Lamp Company. (See Wanzer, Richard M., assignor.)						
Wanzer, Richard M., Hamilton, Ontario, Canada, assignor to Wanzer Lamp Company, (limited,) Philadelphia, Pa. Adjustable reflector and hood-shade for lamps	376,692	Jan. 17	1396	367	42	221
Warburton, George, Norristown, assignor of one-half to J. Mock, Philadelphia, Pa. Shutter-worker	392,896	Nov. 13	1057	273	45	807
Ward, Alexander F., assignor of one-half to T. K. Christie, Detroit, Mich. Hoop-cutting machine	392,651	Nov. 13	701	176	45	735
Ward, Carlos J., et al. (See Hotchkiss, Zeroy P., assignor.)						
Ward, Charles, Charleston, W. Va. Water-tube steam-boiler	386,858	July 31	2274	599	44	474
Ward, Charles H., et al. (See Bloomfield and Clark, assignors.)						
Ward, Charles L., Cavendish, Vt. Link and pin holder for cars	384,655	June 19	1215	321	43	1368
Ward, Charles W., New York, N. Y. Alloy	384,731	June 19	1333		43	1390
Ward & Co., W. H. (See McHugh, Timothy, assignor.)						
Ward, Daniel, Chadron, Nebr. Tongue-support	376,999	Jan. 24	1847	488	42	376
Ward, Edward C., Parsons, Kans. End-gate	389,619	Sept. 18	1247	326	44	1322
Ward, George H., Joplin, Mo. Apparatus for collecting and utilizing waste lead-fumes	381,301	Apr. 17	1501	405	43	308
Ward, Henry C., Greenfield, Tenn. Device for grooving and cutting veneers	390,271	Oct. 2	101	29	45	23
Ward Hezekiah F., Sudley, assignor of one-half to C. A. Crandall, Annapolis, Md. Machine for washing lager-beer bottles	393,675	Nov. 27	2213	586	45	1052
Ward, John E. (See Campbell and Ward.)						
Ward, John E., and J. A. Fallgatter, Huron, Dak. Ter. Car coupling	385,027	June 26	1781	460	43	1483
Ward, John F. (See Brinckerhoff, Henry W., assignor.)						
Ward, John F., Jersey City, N. J. Ram	379,427	Mar. 13	819	220	42	1128
Ward, Joseph G., Newark, N. J. Manufacture of tubular coverings for chain-links	389,992	Sept. 25	1814	480	44	1442
Ward, Rivera, Little Falls, N. Y. Cuff-holder	395,193	Dec. 25	2283	586	45	1537
Ward, Seth, Princeton, Ind. Back-band hook	384,882	June 19	1565	407	43	1434
Ward, Steven W. (See Howard and Ward.)						
Ward, Thomas H., Tipton, county of Stafford, England. Drilling-machine	376,354	Jan. 10	887	{ 232 233 }	42	179
Ward, William E. (See Boerner, Emil C., assignor.)						
Warden, Henry, Philadelphia, Pa. Apparatus for making boiler-heads	377,791	Feb. 14	701	{ 176 177 }	42	644
Warden, Henry, Philadelphia, Pa. Boiler	377,792	Feb. 14	703	177	42	644
Warden, John D. (See Nichols, John F., assignor.)						
Wardle, James, Hope, British Columbia, Canada. Car-heater	380,066	Mar. 27	1804	482	42	1335
Wardwell, Chaison S., Stamford, Conn. Foot-holder for treadles	376,566	Jan. 17	1185	312	42	242
Wardwell, George J., and A. Landon, Rutland, Vt. Self-coupling car-link	379,621	Mar. 20	1117	296	42	1192
Wardwell, Simon W., Jr., Providence, R. I. Revolving hook for sewing-machines	391,666	Oct. 23	2068	560	45	426
Ware, Elijah, Omaha, Nebr. Injector	390,730	Oct. 9	741	194	45	154
Ware, Francis M., and G. W. Benjamin, North Bend, Ohio. Seal-lock	376,355	Jan. 10	889	233	42	179
Ware, George O. (See Sibley and Ware.)						
Ware, James, Madera, Cal. Machine for making honey-frames	384,549	June 12	1062	277	43	1330



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Ware, Joseph G., assignor of one-half to J. G. Krantz, Marengo, Iowa. Nut-lock.....	382,900	May 1	470	120	43	599
Ware, Walter, Chandler, Minn. Ox-bow key.....	380,468	Apr. 3	237	64	43	48
Ware, Walter F., Camden, N. J. Nursing-bottle.....	380,835	Apr. 10	794	217	43	166
Warfield, Dunbar G., Brownwood, assignor to W. B. Morris, Sidney, Tex. Brace for bedsteads.....	378,028	Feb. 14	1031	270	42	708
Warfield, Oliver D., Chicopee Falls, Mass. Combined outside and inside calipers.....	380,836	Apr. 10	794	217	43	166
Warhurst, John W., San Francisco, Cal. Station-indicator for railway-cars.....	379,428	Mar. 13	819	230	42	1128
Warhurst, John W., San Francisco, Cal. Turn-table for street-railways.....	389,020	Sept. 18	1248	327	44	1323
Waring, Fred. E., Saratoga Springs, N. Y. Desk.....	395,194	Dec. 25	2284	586	45	1537
Waring Hat Manufacturing Company. (See Segsneider, Gustave, assignor.)						
Waring, Richard S., Pittsburg, Pa. Test-box for underground electric wires or cables.....	378,560	Feb. 28	1824	481	42	876
Waring, Richard S., Pittsburg, Pa. Conduit for electric wires or cables.....	378,561	Feb. 28	1826	481	42	876
Wark, Hermann, New York, N. Y. Name or sign plate.....	391,727	Oct. 23	2152	582	45	442
Warlich, Herman, Racine, Wis. Alarm.....	394,895	Dec. 18	1805	468	45	1439
Warrington, Henry, and B. Bulger, Virginia City, Mont. Ter. Running-gear for vehicles.....	376,219	Jan. 10	703	187	42	145
Warne, Arthur, Buffalo, N. Y. Furnace fuel-feeder.....	388,468	Aug. 28	1964	527	44	971
Warne, Elijah, Easton, Pa., assignor of one-half to M. T. B. Davidson, New York, N. Y. Anti-friction bearing.....	386,172	July 17	1231	329	44	256
Warneke, August F. (See Brokaw, Isaac, assignor.)						
Warner, Amariah S., et al. (See Larned, William M., assignor.)						
Warner, Austin, and J. J. D. Scoles, Knoxville, Iowa. Two-wheeled vehicle.....	381,444	Apr. 17	1735	463	43	354
Warner, Charles, Watertown, Conn. Animal-trap.....	377,589	Feb. 7	351	91	42	563
Warner, Charles D., Ansonia, assignor to Standard Electric Time Company, New Haven, Conn. Circuit-closer for electric clocks.....	387,703	Aug. 14	769	196	44	726
Warner, Charles D., Ansonia, and A. D. Bennett, assignors to Standard Electric Time Company, New Haven, Conn. Electric-clock system.....	387,704	Aug. 14	770	196	44	726
Warner, Charles F., Orange, N. J. Pen-holder.....	384,101	June 5	377	106	43	1193
Warner, Charles S., Gloversville, N. Y. Sectional adjustable pressure-bar and chip-breaker for wood-planing machines.....	388,094	Aug. 21	1369	369	44	851
Warner Daniel, assignor to G. W. Heartley, Toledo, Ohio. Wheel-riveting machine.....	390,924	Oct. 9	1017	218	45	206
Warner Daniel, assignor to G. W. Heartley, Toledo, Ohio. Self-oiling punch-chuck.....	390,925	Oct. 9	1019	269	45	206
Warner, Daniel, assignor to G. W. Heartley, Toledo, Ohio. Welding-machine.....	391,441	Oct. 23	1768	473	45	362
Warner, Ebenezer, Tomah, Wis. Wire-fence tightener.....	390,046	Sept. 25	1295	500	44	1458
Warner, Ernest P., assignor to Western Electric Company, Chicago, Ill. Electric-current indicator.....	378,029	Feb. 14	1032	270	42	709
Warner, Ernest P., assignor to Western Electric Company, Chicago, Ill. Telephone-exchange central-office connection.....	378,030	Feb. 14	1033	270	42	709
Warner, Ezra J. (See Armstrong, Samuel, assignor.)						
Warner, George W., Freeport, Ill. Spring-hinge.....	381,102	June 5	379	106	43	1193
Warner, George W., Freeport, Ill. Spring-hinge.....	381,103	June 5	380	107	43	1194
Warner, George W., Freeport, Ill. Spring-hinge.....	389,727	Sept. 18	1420	370	44	1356
Warner, George W., Freeport, Ill. Door-hanger.....	394,317	Dec. 11	871	230	45	1247
Warner, Henry W., Baltimore, Md. Car-coupling.....	387,025	July 31	2514	661	44	521
Warner, Henry W., Baltimore, Md. Car-coupling.....	393,492	Nov. 27	1933	506	45	993
Warner, Hulbert H., Rochester, N. Y. Chute.....	380,707	Apr. 10	206	166	43	130
Warner, J. A. (See Pomeroy, Henry M., assignor.)						
Warner, Jesse F., Winnebago, Nebr. Fence-wire stretcher.....	380,272	Oct. 2	102	29	45	24
Warner, John. (See Bailey and Warner.)						
Warner, Peter B. (See Moger, John J., assignor.)						
Warner, Sumner J., Chicago, Ill. Nut-lock.....	390,146	Sept. 25	2038	543	44	1488
Warner, Warren E., and F. A. Austin, assignors to J. F. Pease Furnace Company, Syracuse, N. Y. Core-arbor for hollow castings.....	383,603	May 29	2570	681	43	1039
Warnock, Adam. (See Newlands, Andrew M., assignor.)						
Warnock & Co. (See Rothwell, William E., assignor.)						
Warren, Andrew. (See Crecelius, Louis J., assignor.)						
Warren, Andrew, et al. (See Phillips, Elwood C., assignor.)						
Warren, Andrew, St. Louis, Mo. Railway ratchet-drill.....	380,152	Mar. 27	1925	513	42	1359
Warren, Andrew, deceased, assignor to G. Frost, G. H. Phelps, G. A. Frost, Newton, and G. A. Warren, Waltham, Mass. Stocking and skirt holder. (Reissue).....	10,898	Feb. 7	569	147	42	603
Warren, Andrew M., Reidsville, N. C. Boot.....	378,988	Mar. 6	187	51	42	1002
Warren, Carlos J., Jamestown, Dak. Ter. Car-coupling.....	377,541	Feb. 7	290	73	42	551
Warren, Charles E. (See Noble and Warren.)						
Warren, Charles E., Boston, Mass. Inhaler.....	393,869	Dec. 4	203	55, 56	45	1110
Warren & Company, S. D. (See Cloudman, Francis A., assignor.)						
Warren & Company, S. D. (See Warren, John E., assignor.)						
Warren & Company, S. D. (See Warren and Cloudman, assignors.)						
Warren, Edward K. (See Allen and Warren.)						
Warren, Edward K., Three Oaks, Mich. Whip-core.....	376,273	Jan. 10	774	206	42	159
Warren, Edward K., Three Oaks, Mich. Garment-stay.....	389,993	Sept. 25	1816	480	44	1442
Warren, Edward K., and J. H. Ames, Three Oaks, Mich. Making button-hole strips.....	392,380	Nov. 6	302	76, 77	45	652
Warren, Elmer E. (See Smith, Jud, assignor.)						
Warren, Fred A., Worcester, Mass. Bale-tie machine.....	392,245	Nov. 6	97	25, 26	45	613
Warren, George E. (See Fowler and Warren.)						
Warren, Georgia A., et al. (See Warren, Andrew, assignor.) (Reissue.)						
Warren, Henry H. (See Laundry, Andrew, assignor.)						
Warren, John C., Menallen, Pa. Umbrella.....	376,693	Jan. 17	1397	367	42	281
Warren, John E., Cumberland Mills, Me., assignor of one-half to S. D. Warren & Company, Boston, Mass. Filter.....	379,349	Mar. 13	700	190	42	1104
Warren, John E., and F. A. Cloudman, Cumberland Mills, Me., assignors to S. D. Warren & Company, Boston, Mass. Apparatus for the recovery of soda.....	380,670	Apr. 3	518	150	43	110
Warren, John K., et al. (See Friend, Samuel, assignor.)						
Warren, John K., et al. (See Hartley, Charles J., assignor.)						
Warren, Joseph H., Boston, Mass. Truss.....	391,099	Oct. 16	1300	347	45	265
Warren, Lewis, McGrawville, N. Y. Spring-seat for vehicles.....	385,033	June 26	1792	462	43	1489
Warren, M. K. (See Goebel, Christian H., assignor.)						
Warren, Seth K., Lake Geneva, Wis. Wire-stretcher.....	379,669	Mar. 20	1186	314	42	1205
Warren, Thomas, Corpus Christi, Tex. Blind-stop.....	385,629	Dec. 25	2008	518	45	1486
Warren, William E., and R. S. Dudley, West Point, Va. Metallic shingle.....	390,826	Oct. 9	876	232	45	179

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Warren, William H. (See Smith and Warren.)						
Warren, William H., Worcester, Mass. Shaping-machine	377,969	Feb. 14	950	248	42	693
Warren, Willis H., Johnsonville, N. Y. Medicine-case	389,621	Sept. 18	1249	327	44	1323
Warrington, James N., Chicago, Ill. Steam pile-driving hammer	378,745	Feb. 28	2078	548	42	924
Warrington, Jesse, assignor to Nordyke & Marmou Company, Indianapolis, Ind. Grain-heater	383,027	May 15	1707	443	43	859
Warrior Mower Company. (See Crowley, George G., assignor.)						
Warter, Antoine, and H. C. Koegel, Newark, N. J. Tanning	380,708	Apr. 10	608		43	130
Warter, Antoine, and H. C. Koegel, Newark, N. J. Alum-tanned skin	381,734	Apr. 24	2149		43	454
Warth, Albin, Stapleton, N. Y. Cloth-cutting machine	380,962	Apr. 10	996	264 265	43	202
Warth, Albin, Stapleton, N. Y. Cloth-cutting machine	380,963	Apr. 10	998	265 266	43	203
Warth, Albin, Stapleton, N. Y. Cloth-cutting apparatus	390,105	Sept. 25	1986	528	44	1477
Warth, Albin, Stapleton, N. Y. Mechanical movement	390,926	Oct. 9	1020	269 270	45	206
Warth, Albin, Stapleton, N. Y. Cloth-cutting machine	391,285	Oct. 16	1555	412 413	45	314
Wartham, Adam, <i>et al.</i> (See Woodruff, Theodore T., assignor.)						
Wartman, George H., Montsauo, Wash. Ter. Smoking-pipe	392,768	Nov. 13	878	224	45	770
Warwick Cycle Manufacturing Company. (See Nickerson, Fred. A., assignor.)						
Warwick Cycle Manufacturing Company. (See Warwick, George T., assignor.)						
Warwick, George T., assignor to Warwick Cycle Manufacturing Company, Springfield, Mass. Velocipede	384,945	June 19	1642	426 427	43	1450
Warwick, George T., assignor to Warwick Cycle Manufacturing Company, Springfield, Mass. Velocipede	384,946	June 19	1645	427 428	43	1450
Warwick, George T., assignor to Warwick Cycle Manufacturing Company, Springfield, Mass. Bicycle	386,097	July 10	1125	300	44	228
Washburn, Albert L. (See Hill and Washburn.)						
Washburn, Albert L. (See Smith and Washburn.)						
Washburn, Albion K., Bridgewater, Mass. Heel-filing machine	389,994	Sept. 25	1817	481	44	1442
Washburn, Charles F. (See Elmendorf and Washburn.)						
Washburn, Frank S., Chicago, Ill. Three-throw switch for railways	383,382	May 22	2230	592	43	967
Washburn, Junius B., Jersey City, N. J., assignor to Druid Felt Company, of Maryland. Roof-paint	394,318	Dec. 11	872		45	1248
Washburn & Moen Manufacturing Company. (See Stover, Daniel C., assignor.)						
Washburne, Oscar, Sing Sing, N. Y. Rib for cotton-gins	390,321	Oct. 2	167	46	45	36
Washer, Louis, and C. E. Dolson, Jr., New York, N. Y. Banjo	392,381	Nov. 6	303	77	45	633
Wassell, Ann I. (See Vassell, Edwin D., assignor.)						
Wassell, Edwin D., assignor to A. I. Wassell, Pittsburg, Pa. Treating iron or steel	376,421	Jan. 10	983	256	42	195
Wasserman, David, <i>et al.</i> (See Jacoby and Luyties, assignors.)						
Waterbury, Emery D., Denver, assignor of two-thirds to S. W. Keene, Aspen, and S. E. Hoskins, Denver, Colo. Billiard-tally	388,006	Aug. 14	1229	334	44	818
Waterhouse, Addison G., Hartford, Conn. Instrument for measuring electric currents	393,088	Nov. 20	1334	348	45	867
Waterhouse, Addison G., assignor to Waterhouse Electric and Manufacturing Company, Hartford, Conn. Regulator for electric motors	387,194	July 31	2770	725	44	564
Waterhouse, Addison G., assignor to Waterhouse Electric and Manufacturing Company, Hartford, Conn. Regulation of electric motors	387,195	July 31	2772	725	44	565
Waterhouse, Addison G., assignor to Waterhouse Electric and Manufacturing Company, Hartford, Conn. Regulator for dynamo-electric machines	389,029	Sept. 4	325	86	44	1134
Waterhouse, Addison G., assignor to Waterhouse Electric and Manufacturing Company, Hartford, Conn. Regulation of dynamo-electric machines	389,030	Sept. 4	328	86	44	1134
Waterhouse Electric and Manufacturing Company. (See Waterhouse, Addison G., assignor.)						
Waterhouse, Gilbert A., Quincy, Mass. Animal-releasing device	389,269	Sept. 11	719	183	44	1216
Waterman, Henry, assignor to himself, J. G. F. Metcalf, and E. R. Coker, Brooklyn, N. Y. Stove	377,876	Feb. 14	812	207	42	664
Waterman, Lewis E., assignor to Deere & Mansur Company, Moline, Ill. Sulky lister-plow	385,738	July 10	607	157 158	44	126
Waterman, Sarah, Milwaukee, Wis. Adjustable stove-cover	378,271	Feb. 21	1401	367	42	784
Waterman, Stephen, <i>et al.</i> (See Baviile, Edmond P., assignor.)						
Watermolen, John E., Green Bay, Wis. Lawn-mower	379,350	Mar. 13	701	190 191	42	1104
Waters, Alfred E., Philadelphia, Pa. Laxative compound	392,382	Nov. 6	304		45	653
Waters, Benjamin E., Brockton, assignor of one-half to M. E. Hatch, New Bedford, Mass. Railway-train indicator	391,568	Oct. 23	1937	522	45	399
Waters, Edwin C. (See Heath and Waters.)						
Waters, Frank M., Springfield, Ohio. Lawn-mower	383,927	June 5	129	38	43	1146
Waters, Thomas S., Baltimore, Md. Artificial tooth	377,970	Feb. 14	951	248	42	693
Watkin, Henry S. S., The Wilderness, Cantwell Road, Woolwich, county of Kent, England. Aneroid barometer	394,668	Dec. 18	1422	371	45	1363
Watkins, Uriah B., Barclay, Kans. Corn-shock tye	377,182	Jan. 31	2105	555	42	435
Watkins, William, Chicago, Ill. Cement for calking metallic joints	381,449	Apr. 17	1737		43	354
Watkins, William, Galveston, Tex. Windmill	391,995	Oct. 30	2555	692	45	531
Watkins, William B. (See Deyell and Watkins.)						
Watkins, William C., Fairfield, Ill. Grain measure and tally	393,046	Nov. 20	1283	332 333	45	858
Watmore, William, Philadelphia, Pa. Manufacture of files	383,547	May 29	2511	662	43	1025
Watriss, George C. (See Clement and Watriss.)						
Watrous, Earl G., Smith's Mills, N. Y. Automatic grain-binder	392,650	Nov. 13	699	176	45	734
Watrous, Emma D., Freetown, N. Y. Trelis-support	377,444	Feb. 7	146	33	42	522
Watrous, Emma D., Freetown Corners, N. Y. Underwaist	381,449	May 8	1139	293	43	737
Watson, Alexander, San Francisco, Cal. Automatic fire-alarm	395,096	Dec. 25	2119	548	45	1509
Watson, Andrew J., Martinsville, assignor of one-half to I. Fecheimer, Terre Haute, Ind. Shaft-support	393,946	Dec. 4	306	84	45	1131
Watson, Benjamin F. (See Madding and Watson.)						
Watson, Charles H., assignor to J. L. McCague, Omaha, Nebr. Seal-lock	384,221	June 5	560	154	43	1229
Watson, Christopher, New York, N. Y. Combined artificial flower and perfume-receptacle	387,466	Aug. 7	396	103	44	150
Watson, David S., Stratford, N. Y. Dumping-wagon	378,272	Feb. 21	1402	367	42	784
Watson, Dudley J., <i>et al.</i> (See Baltzley, Henry H., assignor.)						
Watson, Edward J. (See Lang and Watson.)						
Watson, Edwin J., Worcester, Mass. Apparatus for tempering wire	378,746	Feb. 28	2080	548	42	924
Watson, Genevieve, Seattle, Wash. Ter. Lamp-shade	386,046	July 10	1043	278	41	213

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Watson, James H. (See Nelson, Clark B., assignor.)						
Watson, John E., assignor to International Electric Company, Louisville, Ky. Relay	383,843	May 29	2947	780	43	1113
Watson, John E., assignor to International Electric Company, Louisville, Ky. Relay	384,222	June 5	564	154 155	43	1230
Watson, John R. (See McGillivray, John, assignor.)						
Watson, Joseph S. (See Moeller, Fritz, assignor.)						
Watson, Leonard A. (See Richmond, Gilbert M., assignor.)						
Watson, Mary J., Sacramento, Cal. Street and station indicator	382,065	May 1	282	75	43	565
Watson, Robert W., and L. J. Hirt, Cleveland, Ohio; said Hirt assignor to said Watson. Combined cigar-cutter and call-bell	393,279	Nov. 20	1613	422	45	923
Watson, Samuel, assignor of one-half to R. Walmsley, Fall River, Mass. Let-off mechanism for looms	377,654	Feb. 7	459	118	42	582
Watson, Wheeler, Strong's, Miss. Fruit-gatherer	390,106	Sept. 25	1988	529	44	1477
Watson, William, Ilion, N. Y. Pillow-sham holder	380,964	Apr. 10	1000	256	43	203
Watson, William, Minneapolis, Minn., assignor to National Steam Excavating Company, of Minnesota. Cutting device for sewers and other excavations	382,573	May 8	1057	269 270	43	721
Watson, William, Minneapolis, Minn., assignor to National Steam Excavating Company, of Minnesota. Excavating and pipe-laying machine	385,435	July 3	151	40, 41	44	31
Watson, William S., assignor of one-half to H. B. Bevier, Matteawan, N. Y. Catamenial sack	393,408	Nov. 27	1798	475	45	968
Watt, Hugh. (See Lea, John, assignor.)						
Watt, J. M., et al. (See Erwin, Charles M., assignor.)						
Watt, James. (See Taylor and Wickens, assignors.)						
Watt, Sern P. (See Robinson and Watt.)						
Watt, William R., Somerville, Tenn. Pocket weighing-scale	379,746	Mar. 20	1297	346	42	1228
Watters, George, Fall River, assignor to G. Draper & Sons, Hopedale, Mass. Banding-machine	391,728	Oct. 23	2153	582	45	442
Wattie, William, Worcester, Mass. Drilling-machine	378,747	Feb. 28	2082	549	42	925
Wattie, William, assignor to Knowles Loom Works, Worcester, Mass. Shuttle-holder attachment for looms	380,736	Apr. 10	651	180	43	139
Wattie, William, assignor to Knowles Loom Works, Worcester, Mass. Shuttle-box mechanism for looms	390,419	Oct. 2	310	82	45	66
Wattie, William, assignor to Knowles Loom Works, Worcester, Mass. Loom	392,383	Nov. 6	305	77	45	653
Wattie, William, assignor to Knowles Loom Works, Worcester, Mass. Cutting attachment for double-pile-fabric looms	393,947	Dec. 4	307	84	45	1131
Wattie, William, assignor to Knowles Loom Works, Worcester, Mass. A wire-lift needle for jacquard machines	394,800	Dec. 18	1645	430	45	1410
Watts, Alfred. (See Morris, George W., assignor.)						
Watts Campbell Company. (See Young, John, assignor.)						
Wangb, John E. (See Anderson, James J., assignor.)						
Wanzer, Richard M. (See Heath, Able G., assignor.)						
Way, Frank K., assignor to J. Foos, Springfield, Ohio. Ice-shaver	383,928	June 5	132	38	43	1146
Way, Frank K., assignor to J. Foos, Springfield, Ohio. Ice-shaver	384,299	June 12	687	183	43	1262
Way, Frank K., assignor to J. Foos, Springfield, Ohio. Ice-shaving machine	393,195	Nov. 20	1466	388	45	898
Way, Frank K., assignor of one-half to H. C. Dimond, Springfield, Ohio. Filter	385,333	June 26	2254	577	43	1581
Way, Frank K., assignor to Pastenr Chamberland Filter Company, Springfield, Ohio. Filter	388,162	Aug. 21	1505	401	44	874
Wayman, Henry P., Trenton, N. J. Car-starter	376,356	Jan. 10	890	233	42	179
Weaber, Adam, Vineland, N. J. Spraying-pump	383,261	May 22	2070	543	43	938
Wear, John W., Walker, Mo. Wire-tightener	376,694	Jan. 17	1398	368	42	281
Wear, John W., Eldorado Springs, Mo. Wire-tightener	376,695	Jan. 17	1399	368	42	281
Weart, Spencer. (See Whitney, Daniel D., assignor.)						
Weatherhead, Edward H., Cleveland, Ohio. Hydraulic air-pump	383,028	May 15	1708	444	43	859
Weatherhead, James L., and J. S. Cochran, Philadelphia, Pa. Machine for delinting cotton	384,340	June 12	754	197	43	1272
Weatherhead, James L., and J. S. Cochran, Philadelphia, Pa. Cotton-seed cleaner	384,803	June 19	1434	376	43	1411
Weathers, James, Indianapolis, Ind. Lifting-jack	383,029	May 15	1710	444	43	859
Weaver, Frank S. (See Weaver, Vinton A. and F. S.)						
Weaver, Isaac H., Toledo, Ohio. Bag-holder	384,104	June 5	381	107	43	1194
Weaver, James W., Toronto, Ontario, Canada. Feed-water regulator	381,450	Apr. 17	1737	464	43	354
Weaver, Joseph H., Grange, assignor to himself and S. W. Hamilton, Hendersonville, N. C. Car-coupling	390,827	Oct. 9	877	233	45	179
Weaver, Rudolph A. (See Hawn, Socrates A., assignor.)						
Weaver, Vinton A. and F. S., Mountsboro, W. Va. Fly-net	390,420	Oct. 2	311	82	45	66
Weaver, William, Phoenixville, Pa. Rock-drill	387,127	July 31	2675	700 701	44	548
Webb, Browne W. (See Jensen, Webb, and Jensen.)						
Webb, Charles J., et al. (See Perry, Francis H., assignor.)						
Webb, Edward E., assignor of one-half to H. Stone, Fitchburg, Mass. Driving mechanism for forges	378,273	Feb. 21	1404	368	42	785
Webb, George B., Newark, N. J. Perforating and eyeletting machine	381,597	June 12	1130	298	43	1343
Webb, Harry J. F. (See Du Cray, Charles C., assignor.)						
Webb, Joseph, Phillipsburg, Pa. Glassware and manufacturing the same	379,089	Mar. 6	339	97	42	1029
Webb, Leonidas E., and T. Johnson, Indianapolis, Ind. Barrel-carrier	375,785	Jan. 3	87	26	42	21
Webb, Morton W., Charleston, S. C. Hose-connection	388,748	Aug. 28	2357	635	44	1046
Webb, Rodolphus L. (See Gérard and Webb.)						
Webb, Samuel J., Minden, assignor of one-half to R. N. McKellar, Shreveport, La. Adding and subtracting machine	392,837	Nov. 13	982	252	45	791
Webb, Thomas H., Bay View, Tex. Insect-destroyer	377,127	Jan. 31	2040	534	42	420
Webber, Charles C., Springfield, Mass. Speckling, burling, and knobbing table	377,655	Feb. 7	461	118	42	582
Webber, Charles E. (See Sellen and Mordey, assignors.)						
Webber, William A. (See Pain and Webber.)						
Webber, William A., Medford, Mass. Pneumatic cash-carrier apparatus	378,533	Feb. 28	1781	470	42	868
Webber, William O., Lawrence, Mass. Plunger-pump	391,667	Oct. 23	2069	560 561	45	426
Weber, Christian, Oak Glens, Ill. Well-drilling machine	382,500	May 8	943	239	43	699
Weber, Claus, and H. Schneider, Parker, Dak. Ter. Punching and shearing machine	383,900	May 22	1968	516 517	43	919
Weher, Frank, Pittsburg, Pa. Toy	382,744	May 15	1306	343	43	779
Weher, Hermann A., and J. G. Zeidler, Görlitz, Germany. Machine for mixing flour	384,656	June 19	1215	321	43	1368
Weher, Joseph P., Wahpeton, Dak. Ter. Car-coupling	391,828	Oct. 30	2314	628	45	484
Weber, Nicholas, Lynn, Mass. Machine for softening hides or skins	392,141	Oct. 30	2792	757 758	45	578
Weber, Oscar B., New York, N. Y. Regenerative gas-furnace	392,897	Nov. 13	1058	273 274	45	807

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Weber, Philip J., Nen-Oetting, assignor of one-half to L. Zechmeister, Munich, Bavaria, Germany. Rotary engine.....	377,364	Jan. 31	2357	690	42	485
Weber & Scheffbauer. (See Scheffbauer, Rupert, assignor.)						
Weber, Theodore A., assignor to National Weighing Machine Company, New York, N. Y. Coin-operated weighing-machine.....	380,837	Apr. 10	795	{ 217 218 }	43	166
Weber, Thomas R., Hellertown, Pa. Pavement-curling.....	390,322	Oct. 2	168	46, 47	45	37
Weber, William, Chicago, Ill. Post-office mail-indicator.....	393,870	Dec. 4	206	56	45	1111
Webster, Albert B., Manchester, N. H. Shaft-iron.....	377,128	Jan. 31	2041	534	42	420
Webster, Daniel, Brooklyn, Wis. Double-acting pump.....	376,696	Jan. 17	1399	363	42	281
Webster, Edward B., Clay Centre, Kans. Tag.....	375,968	Jan. 3	330	88	42	68
Webster, Frederick R., Nashua, N. H. Draft-lever.....	386,946	July 31	2402	632	44	498
Webster, George, Christiana, Pa. Device for delivering coin.....	386,368	July 17	1514	401	44	310
Webster, Guy. (See Pennock and Webster.)						
Webster, Harold A., Haverhill, Mass. Nail for boot or shoe heels.....	394,802	Dec. 18	1647	431	45	1410
Webster, Horace T., Moore's Mill, N. Y. Ladder.....	377,219	Jan. 31	2167	572	42	446
Webster, James, Birmingham, county of Warwick, England. Metallic alloy.....	377,918	Feb. 14	872		42	677
Webster, James, Birmingham, county of Warwick, England. Manufacturing flux.....	394,233	Dec. 11	738		45	1221
Webster, James, Birmingham, county of Warwick, assignor to Aluminium Company, (limited,) London, England. Flux to be used for the refining of metals.....	394,742	Dec. 18	1541		45	1389
Webster, Jerome J., Somerville, Mass., assignor to Boston Cash Indicator and Recorder Company. Cash register and indicator.....	377,342	Jan. 31	2350	681	42	478
Webster, Jerome J., and W. W. Drew, Somerville, Mass., assignors to Boston Cash Indicator and Recorder Company, Bangor, Me. Cash indicator and register.....	393,089	Nov. 20	1335	{ 348 349 }	45	867
Webster, Jonathan K. (See Murdock, Charles F., assignor.)						
Webster, Warren. (See Foley, Thomas, assignor.)						
Webster, Warren, Philadelphia, Pa. Feed-water heater.....	390,537	Oct. 2	480	125	45	97
Webster, Warren, Philadelphia, Pa. Water heater and purifier.....	390,538	Oct. 2	481	126	45	97
Webster, Warren, Philadelphia, Pa. Apparatus for purifying feed-water.....	390,927	Oct. 9	1021	270	45	207
Webster, William, Jr., Lee Park, Lee, county of Kent, England. Apparatus for purifying water.....	387,467	Aug. 7	396	103	44	650
Webster, William, Jr., Lee Park, Lee, county of Kent, England. Electrolyzing sewage and sea-water.....	389,781	Sept. 18	1486	392	44	1370
Webster, William R., Athens, Pa. Die for upsetting metal bars.....	380,413	Apr. 3	155	44	43	32
Webster, William R., Philadelphia, Pa. Spreading the ends of rectangular metal bars.....	380,414	Apr. 3	157	44	43	33
Webster, William R., Philadelphia, Pa. Spreading the ends of eye-bars.....	383,508	May 29	2146	648	43	1014
Webster, William R., Philadelphia, Pa. Blank for eye-bars.....	383,509	May 29	2447	649	43	1014
Webster, Zachariah T., et al. (See Spennenberg, George J., assignor.)						
Wechsung, Ferdinand O. H. (See Schneidewind, G. L. Herrmann, assignor.)						
Weck, Albert, and B. Von Bültingslöwen, New York, N. Y. Pocket-knife.....	390,633	Oct. 2	599	159	45	120
Weckerlin, Dominick. (See Hoe and Weckerlin.)						
Weckman, John S., Canton, Ohio. Field-roller.....	387,468	Aug. 7	398	104	44	650
Wedekind, August, Brooklyn, N. Y. Device for stopping horses.....	381,735	Apr. 24	2150	563	43	454
Weed, Clinton A., Racine, Wis. Band-coupling.....	377,971	Feb. 14	952	249	42	693
Weed, Idalia, Leavenworth, Kans. Corset.....	387,753	Aug. 14	841	217	44	740
Weed, William A., Chicago, Ill. Tablet for indelible-ink marking.....	394,896	Dec. 18	1897	468	45	1439
Weeden, Henry C., assignor to Weeden Sanitary Manufacturing Company, Boston, Mass. House-boiler stand.....	375,847	Jan. 3	161	45	42	36
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Tank-valve.....	380,153	Mar. 27	1926	513	42	1359
Weeden, Henry C., Boston, Mass., assignor to Weeden Sanitary Manufacturing Company, of Rhode Island. Trap.....	390,634	Oct. 2	601	160	45	121
Weeden Manufacturing Company. (See Weeden, William N., assignor.)						
Weeden Sanitary Manufacturing Company. (See Weeden, Henry C., assignor.)						
Weeden, William N., assignor to Weeden Manufacturing Company, New Bedford, Mass. Arbor for clocks, watches, &c.....	387,469	Aug. 7	398	104	44	651
Weeden, William N., assignor to Weeden Manufacturing Company, New Bedford, Mass. Means for making pinions for clocks and watches.....	387,470	Aug. 7	399	104	44	651
Weeden, William N., assignor to Weeden Manufacturing Company, New Bedford, Mass. Pinions for clocks, watches, &c.....	387,471	Aug. 7	400	105	44	651
Weeden, William N., assignor to Weeden Manufacturing Company, New Bedford, Mass. Making pinions for clocks and watches.....	387,472	Aug. 7	402	105	44	651
Weeden, William N., assignor to Weeden Manufacturing Company, New Bedford, Mass. Making arbors for clocks and watches.....	387,548	Aug. 7	532	138	44	675
Weedsport Skirt and Dress Company. (See Miller, Darwin V., assignor.)						
Weeks, Calvin H., and W. Sellers, Haverhill, Mass. Oscillating sulky-harrow.....	393,801	Dec. 4	93	26	45	1091
Weeks, Elias, What Cheer, Iowa. Velocipede.....	391,100	Oct. 16	1302	347	45	266
Weeks, George W., et al. (See Gould, Charles E., assignor.)						
Weeks, Horace, and H. D. Stone, Boston, Mass.; said Stone assignor to said Weeks. Button-hole attachment for sewing machines.....	390,539	Oct. 2	484	{ 126 127 233 234 }	45	98
Weeks, James N., Warren, N. Y. Water-wheel.....	376,357	Jan. 10	892		42	180
Weeks, Joseph C., et al. (See Dennis, Benjamin F., assignor.)						
Weeks, Oliver W. (See Weiss, John, assignor.)						
Weeks, Sanford. (See Conrad, Alfred, assignor.)						
Weeks, William E., New York, N. Y. Temporary binder.....	386,513	July 24	1749	463	44	367
Weems, David G., Baltimore, Md. Electric-railway system.....	376,567	Jan. 17	1185	{ 313 314 451 452 453 }	42	242
Weems, David G., Baltimore, Md. Electric-railway system.....	391,394	Oct. 16	1703		45	342
Weems, David G., assignor to Electro-Automatic Transit Company of Baltimore City, Baltimore, Md. Electric-railway system.....	387,382	Aug. 7	276	70, 71	44	625
Weems, David G., assignor to Electro-Automatic Transit Company of Baltimore City, Baltimore, Md. Electric-railway system.....	387,383	Aug. 7	277	71	44	625
Weems, David G., Baltimore, Md., assignor to Electro-Automatic Transit Company of Baltimore, of Maryland. Electric-railway system.....	393,280	Nov. 20	1615	{ 423 424 }	45	924
Wegner, Frederick A., Three Rivers, Mich. Carriage-wrench.....	390,731	Oct. 9	743	194	45	155
Wegner, Christian, Buffalo, N. Y. Clutch.....	388,233	Aug. 21	1602	428	44	895
Welsh, Karl, Landeck Bath, Silesia, Germany. Stove.....	384,300	June 12	690	{ 183 184 }	43	1262
Weichhart, John, San Francisco, Cal. Hand nail-driving implement.....	380,612	Apr. 3	461	130	43	94
Weida, James B., and W. Batdorf, Canton, Ohio. Eaves-trough hanger.....	391,286	Oct. 16	1557	413	45	314
Weidig, Henry P., Philadelphia, Pa. Absorption-tower.....	376,929	Jan. 24	1754	461	42	357

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. gr.	Vol.	Page.
Weierman, Charles S., <i>et al.</i> (See Beimling, Henry F., assignor.)						
Weightman, Joseph J. (See Rush and Weightman.)						
Weibe, Louis, Cornellsville, Pa. Leak-stopper for vessels.	381,302	Apr. 17	1504	405	43	309
Weihenmayer, Sigmund H. (See Bellis, David C., assignor.)						
Weekly, James N., Phillipsburg, N. J. Car-truck.	388,095	Aug. 21	1370	370 371	41	852
Weekly, James N., Phillipsburg, N. J. Car-wheel.	388,096	Aug. 21	1375	371	41	852
Weil, Leopold, New York, N. Y. Electrical method of automatically controlling the supply of water or gas.	381,866	Apr. 24	2354	610 611	43	492
Weil, William B., Cleveland, Ohio. Making hollow bars for stay-bolts.	379,837	Mar. 20	1452	384	42	1257
Weimer Machine Works Company <i>et al.</i> (See McCarthy, Felix, assignor.)						
Weimers, Wessie. (See Schuirmann, John G., assignor.)						
Weinberg, Arthur, assignor to L. Cassella & Co., Frankfort-on-the-Main, Prussia, Germany. Production of new diamido compounds and of azo colors produced therefrom.	380,067	Mar. 27	1805		42	1335
Weinberg, Arthur, and H. Siebert, Mainkur, near Frankfort-on-the-Main, assignors to L. Cassella & Co., Frankfort-on-the-Main, Prussia, Germany. Manufacture of dye-stuffs.	375,848	Jan. 3	162		42	36
Weinberg, William I., New York, N. Y. Neckscarf.	384,484	June 12	951	246	43	1310
Weinbrenner, Ferdinand, Neunkirchen, Prussia, Germany. Organ stop-action.	393,871	Dec. 4	208	56	43	1111
Weinburg, Arthur, assignor to L. Cassella & Co., Frankfort-on-the-Main, Prussia, Germany. Blue coloring-matter from nitroso derivatives upon phenylene-diamines.	395,300	Dec. 25	2445		45	1567
Weinedel, Charles. (See Stitzel and Weinedel.)						
Weinmann, Rodolphe. (See Hen and Weinmann.)						
Weintz, Lewis J., Wilkes-Barre, Pa. Harrow.	385,739	July 10	610	158	44	126
Weir, Caleb, Malvern, Pa. Thill-coupling.	395,021	Dec. 25	2008	518	45	1486
Weir, Elmer E. (See Smith, Weir, Carson, and Weir.)						
Weir, Fred H. (See Smith, Weir, Carson, and Weir.)						
Weir, Fredric C. (See Crowell and Weir.)						
Weir, Fredric C., Cincinnati, Ohio. Rail-brace.	377,220	Jan. 31	2168	572	42	446
Weir, Fredric C., C. Partington, N. O. Goldsmith, and E. W. Harden, assignors to Weir Frog Company, Cincinnati, Ohio. Multiple drill.	378,748	Feb. 28	2084	540	42	925
Weir Frog Company. (See Weir, Partington, Goldsmith, and Harden, assignors.)						
Weirich, Jules, Béziers, Hérault, France. Amalgamator.	377,590	Feb. 7	352	91	42	563
Weirs, Charles A., Rockville, Conn. Apparatus for vaporizing and burning oil in stoves, &c.	387,669	Aug. 14	715	183	44	717
Weiss, Joseph, Jersey City, N. J. Electrically-driven car.	387,610	Aug. 7	634	164	44	694
Weiss, Charles P., Susquehanna, Pa. Car-ventilator.	390,828	Oct. 9	878	233	45	179
Weiss, Charles P., Susquehanna, Pa., assignor of one-half to C. M. Morse, Buffalo, N. Y. Valve-facing device.	379,297	Mar. 13	634	173	42	1092
Weiss, Charles P., Susquehanna, Pa., assignor of one-half to C. M. Morse, Buffalo, N. Y. Device for reseating valves.	379,351	Mar. 13	702	191	42	1105
Weiss, Emil, assignor of one half to L. Fraenkel, Berlin, Germany. Separating-machine for cleaning groats.	378,562	Feb. 28	1828	481 482	42	876
Weiss, Emil and L. Fraenkel, Berlin, Germany. Middlings-purifier.	383,202	May 22	2072	544	43	939
Weiss, Franz J., assignor of three-tenths to A. Burckhardt, Basle, Switzerland. Surface-condenser.	387,473	Aug. 7	403	106	44	651
Weiss, George H., Newton, Mass., assignor to Carter, Dinsmore & Co., Brooklyn, N. Y. Bluing-paper.	384,804	June 19	1436	377	43	1412
Weiss, George W. (See Stewart and Weiss.)						
Weiss, John, assignor of one-half to O. W. Weeks, Marion, Ohio. Hay-rack.	391,668	Oct. 23	2072	561	45	426
Weiss, Louis T., Brooklyn, N. Y. Type-segment for type-writers.	380,372	Apr. 3	102	30	43	22
Weiss, Morris, Brooklyn, N. Y. Type-writing machine.	383,383	May 22	2233	593	43	968
Weissenborn, Oscar A., Jersey City, N. J. Lead-pencil or crayon holder.	385,781	July 10	674	176	44	139
Weisser, Theodor, Vöhrenbach, near Villingen, Baden, Germany. Magnesium lamp.	385,393	July 3	79	22	44	17
Weitmeyer, John H., Harrisburg, Pa. Damper-regulator.	377,657	Feb. 7	465	119	42	583
Weitzel, Jacob F., and T. Lee, Cincinnati, Ohio; said Weitzel, assignor to said Lee. Flue-stopper.	384,341	June 12	755	198	43	1272
Weitzman, Emil, Detroit, Mich. Belt-fastener.	377,130	Jan. 31	2042	534	42	421
Welburn, Drummond, Orlando, Fla. Portable house.	391,442	Oct. 23	1770	473	45	362
Welch, Americus, <i>et al.</i> (See Metcalf, George A., assignor.)						
Welch, E. B. (See Davis, Edward, assignor.)						
Welch, E. B. (See Littlejohn, Charles F., assignor.)						
Welch, E. B. (See Robinson, Thomas C., assignor.)						
Welch, J. B., <i>et al.</i> (See Thompson, Elias H., assignor.)						
Welch, James F., Brooklyn, assignor to Glen Cove Machine Company, (limited,) Green Point, N. Y. Pulley for variable speed.	377,281	Jan. 31	2257	597	42	462
Welch, James F., assignor to Glen Cove Machine Company, (limited,) Brooklyn, N. Y. Wood-planing machine.	387,384	Aug. 7	279	71, 72	44	625
Welch, James F., assignor to Glen Cove Machine Company, (limited,) Brooklyn, N. Y. Wood-planing machine.	390,047	Sept. 25	1896	500	44	1458
Welch, James F., assignor to Glen Cove Machine Company, (limited,) Brooklyn, N. Y. Wood-planing machine.	390,829	Oct. 9	880	233 234	45	180
Welch, James F., assignor to Glen Cove Machine Company, (limited,) Brooklyn, N. Y. Wood-planing machine.	393,948	Dec. 4	309	84, 85	45	1132
Welch, Lee L., Leggett, Tex. Beef-tenderer.	376,226	July 17	1327	350	44	274
Welch, Robert W., Johnstown, Pa., assignor to Johnson Steel Street Rail Company, of Kentucky. Rail-chair for girder-rails.	388,097	Aug. 21	1380	372	44	853
Welch, Rosia W., Baltimore, Md., assignor to Welsh Wheat Cleaning and Manufacturing Company of Baltimore City. Grain-scouring machine.	377,919	Feb. 14	875	224	42	677
Welch, Rosia W., Baltimore, Md., assignor to Welsh Wheat Cleaning and Manufacturing Company of Baltimore City. Wheat-scouring machine.	377,920	Feb. 14	876	224	42	678
Welch, S. Frank, assignor to Western Wheel Scraper Company, Mount Pleasant, Iowa. Road-grader.	379,550	Mar. 13	1001	268	42	1163
Welch, S. Frank, assignor to Western Wheel Scraper Company, Mount Pleasant, Iowa. Road-grader.	380,068	Mar. 27	1806	482	42	1335
Welch, Samuel F., assignor to Western Wheel Scraper Company, Mount Pleasant, Iowa. Road-grader.						
Welcome, Jacob C., Fort Bidwell, Cal. Stirrup attachment.	392,246	Nov. 6	102	26	45	613
Weld, George A., Winchester, Mass. Bale-tie.	379,747	Mar. 20	1298	346	42	1228
Weld, George A., Winchester, Mass. Elevator.	377,092	Jan. 31	1991	521	42	411
Weld, George A., Winchester, Mass. Elevator.	388,469	Aug. 28	1966	527	44	971
Weld, Loretta B., Falmouth, Mass. Preparing hydrochlorate of quinia.	379,298	Mar. 13	635		42	1092
Weld, Loretta B., Falmouth, Mass. Medicinal preparation.	379,299	Mar. 13	635		42	1092
Weld, Loretta B., Falmouth, Mass. Solution of quinine.	379,300	Mar. 13	636		42	1092
Welden, Richard H., assignor to self and J. Calmeyer, Chicago, Ill. Electric switch-board.	381,303	Apr. 17	1505	406	43	309
Weldon, Henry J., New York, N. Y. Ear-protector.	390,928	Oct. 9	1024	270	45	207



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Weldon, Urban, Cohoes, N. Y. Dyeing apparatus .....	380,838	Apr. 10	759	218	43	166
Weldon, Urban, Cohoes, N. Y. Dyeing apparatus .....	382,918	May 15	1538	403	43	827
Weldon, Urban, Cohoes, N. Y. Apparatus for dyeing yarn .....	395,195	Dec. 25	2286	587	45	1537
Weldon's Chlorine Processes Company. (See Peckiney, Alfred R., assignor.)						
Welker, Isaac, <i>et al.</i> (See Criswell, Robert D., assignor.)						
Wellcome, Henry S., <i>et al.</i> (See Golding, John F., assignor.)						
Wellcome, Henry S., <i>et al.</i> (See Tindin and Piatkowski, assignors.)						
Wellens, Joseph, <i>et al.</i> (See Wellens, Robert, assignor.)						
Wellens, Robert, assignor of two-thirds to D. Ferguson and J. Wellens, Pittsburg, Pa. Beer-pump .....	385,981	July 10	956	254	44	195
Weller, Charles W., <i>et al.</i> (See Gillis, William, assignor.)						
Weller, Horace J. (See McLaughlin, Edgar A., assignor.)						
Welles, Howard W., Poughkeepsie, N. Y. Watch-regulator .....	391,101	Oct. 16	1303	347	45	266
Wellington, Arthur M., New York, N. Y. Appliance for handling rapid-transit passenger traffic. (Reissue) .....	10,927	May 1	610	155	43	626
Wellington, Charles A., Lexington, Mass. Cover for fire-place ash-chutes .....	375,969	Jan. 3	331	88	42	68
Wellington, Henry. (See Prendergast, Daniel, assignor.)						
Wellington, Samuel B. (See Gostling, Charles R., assignor.)						
Wellman, Samuel T. (See Garrett and Wellman.)						
Wellman, Samuel T., Cleveland, Ohio. Apparatus for charging and drawing furnaces .....	334,419	Dec. 11	1015	266	45	1274
Wellman, Samuel T., Cleveland, Ohio. Apparatus for charging and drawing furnaces .....	394,420	Dec. 11	1017	267	45	1275
Wellman, Samuel T., Cleveland, Ohio. Combination mechanism for charging and drawing furnaces .....	324,421	Dec. 11	1018	267	45	1275
Wellman, Samuel T., and G. W. Goetz, Cleveland, Ohio, assignors to Fuel Gas and Electric Engineering Company, (limited), Pittsburg, Pa. Apparatus for the manufacture of gas .....	376,835	Jan. 24	1627	425	42	333
Wellman, Samuel T., and G. W. Goetz, Cleveland, Ohio, assignors to Fuel Gas and Electric Engineering Company, (limited), Pittsburg, Pa. Apparatus for the manufacture of gas .....	376,836	Jan. 24	1629	426	42	333
Wellman Sole Cutting Machine Company. (See Wellman, Willard F., assignor.)						
Wellman, Willard F., assignor to C. H. Dunham, Boston, and F. H. Hondlette, Waltham, Mass. Road-scraping machine .....	381,667	Apr. 24	2357	{ 611 612 }	43	492
Wellman, Willard F., assignor, by mesne assignments, to Wellman Sole Cutting Machine Company, Boston, Mass. Machine for cutting shoe-soles .....	391,287	Oct. 16	1558	414	45	315
Wellman, Willard F., Boston, assignor, by mesne assignments, of one-half to H. R. Thompson, Newton, Mass. Device for expanding the uppers of boots or shoes .....	392,384	Nov. 6	306	77	47	653
Wells, Arthur C., Manchester, county of Lancaster, England. Tool-handle .....	375,766	Jan. 3	88	26	42	22
Wells, Arthur J., Syracuse, N. Y. Paper or bill file .....	386,673	July 24	1971	520	41	410
Wells, Arthur J., Syracuse, N. Y. Paper or bill file .....	376,674	July 24	1972	520	41	410
Wells, Arthur J., Syracuse, N. Y. Paper or bill file .....	386,675	July 24	1974	521	41	410
Wells, Charles D., assignor of one-third to P. P. and J. T. Parker, Maysville, Ky. Cutter-supporting bar and cutter .....	380,204	Mar. 27	2124	568	42	1369
Wells, Christopher S., Ingram Station, Pa. Sash-pulley case .....	393,211	Nov. 20	1618	425	45	934
Wells, Edwin F., Crisball, (Royston,) county of Essex, England. Insect-destroyer .....	395,022	Dec. 25	2900	518	45	1487
Wells, Frank A. (See Torrance and Wells.)						
Wells, Frank A., Allegheny City, Pa. Combined overflow, supply, and waste for tubs .....	380,373	Apr. 3	103	31	43	22
Wells, Frank A., Chicago, Ill., assignor of one-third to N. O. Nelson Manufacturing Company, St. Louis, Mo. Water-closet .....	381,660	Apr. 24	2043	535	43	433
Wells, George. (See Jefferson, John T., assignor.)						
Wells, George F., San Francisco, Cal. Orchestration .....	387,128	July 31	2677	{ 701 702 }	44	548
Wells, George F., San Francisco, assignor of one-half to M. C. Lawton, Staten Island, Cal. Speed-regulator .....	387,330	Aug. 7	195	51	44	608
Wells, George F., San Francisco, assignor of one-half to M. C. Lawton, Staten Island, Cal. Motor .....	390,929	Oct. 9	1624	270	45	207
Wells, George F., San Francisco, assignor of one-half to M. C. Lawton, Staten Island, Cal. Mechanical musical instrument .....	393,456	Nov. 27	1867	492	45	981
Wells, George M., <i>et al.</i> (See Metcalf, George A., assignor.)						
Wells, Henry W., Rowayton, assignor of one-half to A. Solmans, Norwalk, Conn. Center-board for vessels .....	383,098	Aug. 21	1281	372	41	83
Wells, Hiram J., Nashville, Tenn. Pump .....	389,031	Sept. 4	330	86	44	1134
Wells, John W., Manchester, N. H. Bag turning, folding, and printing machine .....	377,972	Feb. 14	953	219	42	684
Wells, Osborn, and S. Johnstone, Newberry Court-House, S. C. Sugar-cane-juice filter .....	389,427	Sept. 11	950	219	44	1261
Wells, Philip F., assignor of one-half to R. S. Wells, Milford, Mich. Spring-tooth .....	382,847	May 15	1439	378	43	807
Wells, Philip F., assignor of one-half to R. S. Wells, Milford, Mich. Spring-tooth. (Reissue) .....	10,972	Dec. 4	606	162	45	1187
Wells, R. S. (See Wells, Philip F., assignor.)						
Wells, R. S. (See Wells, Philip F., assignor.) (Reissue.)						
Wells, Thomas T., Union, Miss. Bale-tie .....	382,396	May 8	781	198	43	667
Wells, Walter, Oskaloosa, Iowa. Oven for gasoline-stoves .....	386,676	July 24	1975	521	41	410
Wells, Walter S., New York, N. Y. Nose-guard for eyeglasses .....	382,848	May 15	1430	379	43	807
Wells, Walter S., New York, N. Y. Eyeglasses .....	383,604	May 29	2572	681	43	1039
Wells, William H., assignor of one-third to C. L. Kenton, Christian, Ill. Fire-escape .....	394,625	Dec. 18	1349	352	45	1349
Wells, William T., Hackensack, N. J. Coating iron and steel with rustless oxide .....	382,447	May 8	856	{ 218 219 }	43	689
Welpton, John R., Red Oak, Iowa. Washing-machine .....	388,606	Aug. 28	2157	579	41	1008
Welsbach Incandescent Gas Light Company. (See Bell, Harold J., assignor.)						
Welsbach Incandescent Gas Light Company. (See Shaw, Henry, assignor.)						
Welsbach Incandescent Gas Light Company. (See Shaw and McCulloch, assignors.)						
Welsbach Incandescent Gas Light Company. (See Von Welsbach, Carl A., assignor.)						
Welsh Wheat Cleaning and Manufacturing Company of Baltimore City. (See Welch, Rosia W., assignor.)						
Welsh, William H., Somerville, Mass. Machine for dressing and grooving type .....	380,004	Mar. 27	1714	{ 458 459 460 }	42	1318
Welsh, William S., assignor of one-half to J. F. Kurtis, Springfield, Ohio. Stove-pipe holder .....	387,837	Aug. 14	959	249	44	764
Wemple, Andrew, assignor of one-half to L. Gathmann, Chicago, Ill. Separator .....	380,839	Apr. 10	800	219	43	167
Wemple, John V. (See Olmstead and Wemple.)						
Wemple, John V., assignor of one-half to H. B. Salisbury, Schenectady, N. Y. Cattle-bone and food holder for bird-cages .....	385,650	July 3	477	123	44	93
Wendell, Isaac P., assignor of one-half to S. P. M. Tasker, Philadelphia, Pa. Compound for safe-linings, &c .....	377,343	Jan. 31	2354	.....	42	479
Wendenburg, Friedrich W., Stolpe, Prussia, Germany. Preparing food for animals .....	387,270	Sept. 11	720	.....	44	1217
Wendenburg, Friedrich W., Bagenz, Prussia, Germany. Preparing food for animals .....	387,271	Sept. 11	721	.....	44	1217
Wendrich, Carl, Omaha, Nebr. Rein-holder .....	375,891	July 10	843	223	44	172

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. et	Vol.	Page.
Wenham, Fred, <i>et al.</i> (See Wilcox, William E., assignor.)						
Wennersten, John P., assignor of two-thirds to A. Johnson and J. A. Johanson, Chicago, Ill. Horseshoe-nail-finishing machine	391,102	Oct. 16	1304	348	45	266
Wenström, Jonas, Örebro, Sweden. Dynamo-electric machine	381,451	Apr. 17	1738	464	43	355
Wentworth, Edwin A., and A. J. Traver, Atchison, Kans. Plum-b-level	377,658	Feb. 7	467	465	42	583
Wenzel, Karl, New York, N. Y. Sled	390,048	Sept. 25	1898	119	41	1458
Werkzeug und Maschinenfabrik Oerlikon. (See Brown, Charles E. L., assignor.)						
Werline, Elmer H. (See Wollin and Werline.)						
Werner, August F., New York, N. Y. Steam-pump	386,369	July 17	1517	402	44	310
Werner, Frederick C., Watertown, Wis. Ventilator	378,989	Mar. 6	188	52	42	1002
Wernich, Waldemar, Milwaukee, Wis. Composition food for cattle, horses, and swine	385,320	June 26	2067	548	43	1545
Wernitz, Gabriel, Placerville, Cal. Candlestick	395,097	Dec. 25	2120	414	45	1509
Werrek, James, and W. E. Smith, St. Paul, Minn. Register attachment for faucets	391,288	Oct. 16	1559	221	45	315
Werth, James R., Richmond, Va. Building-block	379,429	Mar. 13	821	511	42	1128
Wertheim, Joseph, Frankfurt-on-the-Main, Germany. Sewing-machine table	378,636	Feb. 28	1926	429	42	897
Wescott, Earl A., and E. R. Bristol, Minneapolis, Minn. Car-brake	388,234	Aug. 21	1602	380	44	895
Wesely, Charles, West New York, N. J. Cement wash-tub	384,814	June 19	1455	361	43	1415
Wesemann, Dietrich, assignor of one-half to J. J. Jones, Los Angeles, Cal. Wire screen, &c.	383,161	May 22	1918	501	43	909
Wesemann, Dietrich, assignor of one-half to J. J. Jones, Los Angeles, Cal. Screen	383,510	May 29	2448	649	43	1014
Wesle, Henry. (See Wesle, Herman and H.)						
Wesle, Herman and H., Medford, Wis. Sleigh-knee	382,397	May 8	781	198	43	667
Wesle, Herman and H., Medford, Wis. Wheel	393,133	Nov. 20	1394	364	45	879
Wesseling, George H., St. Louis, Mo. Rotary cutter	394,803	Dec. 18	1648	431	45	1410
Wesselmann, Bruno. (See Engels and Wesselmann.)						
Wesson, Daniel B., Springfield, Mass. Barrel-catch device for revolvers	377,877	Feb. 14	814	208	42	665
Wesson, Daniel B., Springfield, Mass. Revolver	377,878	Feb. 14	815	208	42	665
Wesson, Daniel B., Springfield, Mass. Forming dovetail slots in wood	394,422	Dec. 11	1019	268	45	1275
Wesson, Daniel B., Springfield, Mass. Forming dovetails in wood	394,423	Dec. 11	1023	269	45	1276
Wesson, Miley B., Fort Worth, Tex. Medicine-dial	391,996	Oct. 30	2556	693	45	532
West, Adoniram J., Lake View, Ill. Valve for filters	386,677	July 24	1976	521	44	410
West, Belle. (See Allen and West.)						
West, Charles F., Concord, N. H. Train-signaling apparatus	387,026	July 31	2516	661	44	521
West, Charles F., Concord, N. H. Gong-sounding mechanism	387,027	July 31	2517	662	44	521
West, Clark S., deceased; M. S. West, West Somerville, Mass., administratrix. Hot-water radiator	385,394	July 3	80	23	44	17
West, De Witt, Tampico, Ill. Automatic weighing-machine for grain	384,657	June 19	1217	321	43	1369
West, George, Syracuse, N. Y. Plaster-mixing machine	392,652	Nov. 13	703	177	45	735
West Hayen Buckle Company. (See Hyde, James C., assignor.)						
West, Henry B. (See Mason, Peter L., assignor.)						
West, Henry F., Gloucester City, N. J. Device for cleaning yarn, &c.	390,323	Oct. 2	169	47	45	37
West, Henry F., Gloucester City, N. J. Device for cleaning yarn, &c.	390,324	Oct. 2	171	47	45	37
West, Henry F., Gloucester City, N. J. Device for cleaning yarn, &c.	390,325	Oct. 2	173	47	45	37
West, Henry F., Gloucester City, N. J. Yarn-cleaning device	390,326	Oct. 2	176	48	45	38
West, Henry J., 116 Southwark Bridge Road, County of Surrey, England. Apparatus for the production of transparent ice	381,195	Apr. 17	1359	363	43	280
West, James, assignor to himself, N. G. Pierce, and G. D. Markham, St. Louis, Mo. Fire-alarm	378,990	Mar. 6	189	52	42	1002
West, James J. (See Wilkins, Morris D., assignor.)						
West, Joel, Burlington, Iowa. Car-brake	387,474	Aug. 7	405	106	44	651
West, John F., Staunton, Va. Cable-grip	377,702	Feb. 7	529	135	42	594
West, John T., Bowling Green, Ky. Cleaner and gage attachment for grain-drills	384,105	June 5	382	107	43	1194
West, Jonathan B. (See Strauss and West.)						
West, Jonathan B., Rochester, N. Y. Box and drawer corner	390,421	Oct. 2	312	82	45	66
West, Lorenzo D., Anna, Ill. Gate	390,273	Oct. 2	103	29	45	24
West, Mary S., administratrix. (See West, Clark S.)						
West, North. (See Cooney, Richard A., assignor.)						
West, Owen, Lynchburg, Ohio. Swinging gate	376,358	Jan. 10	893	234	42	180
West, Paul, <i>et al.</i> (See Enos, John A., assignor.)						
West, Robert S., Cleveland, Ohio. Disinfecting apparatus	393,047	Nov. 20	1284	333	45	858
West, Samuel H., New Orleans, La. Ironing-table	385,892	July 10	814	223	44	172
West, Samuel M., Fort Worth, Tex. Passenger mileage-recorder	387,936	Aug. 14	1123	300	44	796
West, Stillman A. (See Harden, Albert, assignor.)						
West, William. (See Morris and West.)						
Westaway, Walter C., assignor of one-half to A. J. Bennett, Decorah, Iowa. Windmill	377,973	Feb. 14	956	249	42	604
Westbrook, Frank A., Port Jervis, N. Y. Fire-escape	382,574	May 8	1060	270	43	722
Westbrook, Richard B. (See Moreau, Eugène, assignor.)						
Westbrook, Walter A., Kingman, Kans. Wagon-brake lever	378,123	Feb. 21	1167	304	42	742
Western Electric Company. (See Brown and Clark, assignors.)						
Western Electric Company. (See Cook, James A. and F. B., assignors.)						
Western Electric Company. (See Eldred, Horace H., assignor.)						
Western Electric Company. (See Goodridge, William M., assignor.)						
Western Electric Company. (See Gray, Elfisha, assignor.)						
Western Electric Company. (See Haskins, Charles H., assignor.)						
Western Electric Company. (See Patterson, William R., assignor.)						
Western Electric Company. (See Scribner, Charles E., assignor.)						
Western Electric Company. (See Warner, Ernest P., assignor.)						
Western Electric Company. (See Young, John, assignor.)						
Western Indurated Fibre Company. (See Loomis, Charles F., assignor.)						
Western Machine Works <i>et al.</i> (See Clifford, William P., assignor.)						
Western Union Telegraph Company. (See Edison, Thomas A., assignor.)						
Western Union Telegraph Company. (See Fiske, Bradley A., assignor.)						
Western Union Telegraph Company. (See Phelps, George M., assignor.)						
Western Union Telegraph Company. (See Pike, Daniel E., assignor.)						
Western Wheel Scraper Company. (See Welch, S. Frank, assignor.)						
Western Wheel Scraper Company. (See Welch, Samuel F., assignor.)						
Westervelt, Edmund C., South Bend, Ind. Sulky-plow	382,919	May 15	1539	403	43	827
Westfall, Peter V., Kalamazo, Mich. Cotton-gin	385,952	July 10	958	254	44	196

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Westgate, Joseph D., assignor of one-half to A. P. Butler, Worcester, Mass. Clutch .....	386,948	July 31	2401	632	44	499
Westgate, Joseph D., assignor of two-thirds to A. P. Butler, Worcester, and E. Y. Butler, Boston, Mass. Friction-clutch .....	385,947	July 31	2403	632	44	478
Westinghouse Electric Company. (See Belfield, Reginald, assignor.) .....						
Westinghouse Electric Company. (See Byllesby, Henry M., assignor.) .....						
Westinghouse Electric Company. (See Byllesby and Lange, assignors.) .....						
Westinghouse Electric Company. (See Byllesby and Shallenberger, assignors.) .....						
Westinghouse Electric Company. (See Lange, Philip, assignor.) .....						
Westinghouse Electric Company. (See Moses, Otto A., assignor.) .....						
Westinghouse Electric Company. (See Reinmann, Albert L., assignor.) .....						
Westinghouse Electric Company. (See Schmid, Albert, assignor.) .....						
Westinghouse Electric Company. (See Schmid and Byllesby, assignors.) .....						
Westinghouse Electric Company. (See Shallenberger, Oliver B., assignor.) .....						
Westinghouse Electric Company. (See Shallenberger and Byllesby, assignors.) .....						
Westinghouse Electric Company. (See Stanley, William, Jr., assignor.) .....						
Westinghouse Electric Company. (See Westinghouse, George, Jr., assignor.) .....						
Westinghouse Electric Company. (See Westinghouse and Lange, assignors.) .....						
Westinghouse Electric Company. (See Wurts, Alexander, assignor.) .....						
Westinghouse, George, Jr. (See Belfield, Reginald, assignor.) .....						
Westinghouse, George, Jr. (See Ellis, Josiah W., assignor.) .....						
Westinghouse, George, Jr. (See Moore, Frank, assignor.) .....						
Westinghouse, George, Jr. (See Schreuder, Jens G., assignor.) .....						
Westinghouse, George, Jr. (See Shallenberger, Oliver B., assignor.) .....						
Westinghouse, George, Jr. (See Shepler, Cassius R., assignor.) .....						
Westinghouse, George, Jr., Pittsburg, Pa. Fluid-pressure automatic brake mechanism ...	376,837	Jan. 24	1631	426	42	333
Westinghouse, George, Jr., Pittsburg, Pa. Nut-lock .....	382,920	May 15	1540	{ 403 404 }	43	827
Westinghouse, George, Jr., Pittsburg, Pa. Electric meter .....	383,678	May 29	2681	709	43	1063
Westinghouse, George, Jr., Pittsburg, Pa. System of gas-distribution .....	388,163	Aug. 21	1506	401	44	875
Westinghouse, George, Jr., Pittsburg, Pa. Pressure-regulator and cut-off .....	389,032	Sept. 4	331	87	44	1135
Westinghouse, George, Jr., Pittsburg, Pa. Buffing apparatus .....	391,997	Oct. 30	2557	{ 693 694 695 }	45	532
Westinghouse, George, Jr., Pittsburg, Pa. Electric fluid-pressure engine .....	393,596	Nov. 27	2083	546	45	1026
Westinghouse, George, Jr., assignor to Westinghouse Electric Company, Pittsburg, Pa. Mounting armatures of dynamos .....	383,679	May 29	2683	709	43	1063
Westinghouse, George, Jr., assignor to Westinghouse Electric Company, Pittsburg, Pa. Synchronizing electric generators .....	390,930	Oct. 9	1026	271	45	208
Westinghouse, George, Jr., and P. Lange, assignors to Westinghouse Electric Company, Pittsburg, Pa. Electric meter .....	383,680	May 29	2683	710	43	1063
Westinghouse, H. Herman, and F. M. Rites, assignors to Westinghouse Machine Company, Pittsburg, Pa. Governor .....	384,485	June 12	951	247	43	1310
Westinghouse, Henry H., and F. M. Rites, Pittsburg, Pa. Steam-engine .....	393,597	Nov. 27	2085	547	45	1027
Westinghouse Machine Company. (See Bole, William A., assignor.) .....						
Westinghouse Machine Company. (See Rites, Francis M., assignor.) .....						
Westinghouse Machine Company. (See Westinghouse and Rites, assignors.) .....						
Westman, Gustaf M., Stockholm, Sweden. Reducing iron ores .....	383,201	May 22	1970	{ 517 518 519 }	43	920
Westman, Gustaf M., New York, N. Y. Reducing zinc ores .....	383,202	May 22	1972	{ 518 519 520 }	43	920
Westman, Gustaf M., New York, N. Y. Manufacturing gas .....	393,134	Nov. 20	1395	{ 364 365 }	45	880
Weston, Charles. (See Duffee and Weston.) .....						
Weston, Charles H., Medford, assignor of one-half to J. C. Nute, East Boston, Mass. Lock for lathe-head stocks. (Reissue) .....	10,900	Feb. 7	573	147	42	604
Weston, David M., Boston, Mass. Centrifugal machine .....	394,214	Dec. 11	740	195	45	1221
Weston, Edward, Newark, N. J. Electrical coil and conductor .....	381,304	Apr. 17	1506	406	43	310
Weston, Edward, Newark, N. J. Electrical coil and conductor .....	381,305	Apr. 17	1508	406	43	310
Weston, Edward, Newark, N. J. Electric indicator .....	381,736	Apr. 24	2151	563	43	454
Weston, Edward, Newark, N. J. Electrical conductor. (Reissue) .....	10,944	July 17	1640	431	44	339
Weston, Edward, Newark, N. J. Electrical conductor. (Reissue) .....	10,945	July 17	1641	431	44	340
Weston, Edward, Newark, N. J. Apparatus for utilizing solar radiant energy .....	389,121	Sept. 4	456	125	44	1163
Weston, Edward, Newark, N. J. Utilizing solar radiant energy .....	389,125	Sept. 4	487	125	44	1163
Weston, Edward, Newark, N. J. Electrical protective system .....	389,272	Sept. 11	722	184	44	1217
Weston, Edward, Newark, N. J. Electrical recording mechanism .....	389,273	Sept. 11	727	184	44	1218
Weston, Edward, Newark, N. J. Standard tangent-galvanometer .....	389,274	Sept. 11	730	185	44	1218
Weston, Edward, Newark, N. J. Electrical measuring apparatus .....	392,387	Nov. 6	313	78, 79	45	654
Weston, Edward, Newark, N. J. Reflecting-galvanometer .....	392,476	Nov. 6	445	112	45	678
Weston, Edward, Newark, N. J. Galvanometer .....	392,477	Nov. 6	447	113	45	679
Weston, Edward, Newark, N. J. Galvanometer .....	392,478	Nov. 6	449	113	45	680
Weston, Edward, assignor to Weston Electrical Instrument Company, Newark, N. J. Electroplated coil for electrical measuring instruments .....	392,385	Nov. 6	307	78	45	653
Weston, Edward, assignor to Weston Electrical Instrument Company, Newark, N. J. Electrical measuring apparatus .....	392,386	Nov. 6	308	78	45	653
Weston, Edwin J., San Francisco, Cal. Cable road and machinery for operating the same .....	382,575	May 8	1062	{ 271 272 }	43	722
Weston, Edwin J., San Francisco, Cal. Construction of fire-proof iron buildings .....	390,732	Oct. 9	744	195	45	155
Weston Electrical Instrument Company. (See Weston, Edward, assignor.) .....						
Weston Engine Company. (See Armstrong, Edwin J., assignor.) .....						
Weston, George H., Boston, Mass. Rotary engine .....	392,653	Nov. 13	704	177	45	735
Weston, Henry. (See Chorman, Ernest G., assignor.) .....						
Weston, Henry D. (See Smith and Weston, assignors.) .....						
Weston, Irving A. (See Smith and Weston.) .....						
Weston, Wilbur H., Newburg, N. Y. Vehicle .....	387,838	Aug. 14	960	249	44	764
Westphal, Christian, assignor of one-half to J. Quaglio, Berlin, Germany. Gas-lamp .....	391,000	Oct. 9	1136	300	45	228
Westphal, Robert, South Bend, Ind. Two-wheeled vehicle .....	394,041	Dec. 4	449	120	45	1157
Westrup, Walter W., and G. T. Lantaff, Lockport, N. Y. Roller-mill .....	384,408	June 12	853	221	43	1291
Wetherbee, George C. (See Strickel, Louis, assignor.) .....						
Wetmore, Charles C. (See Prefontaine, George G., assignor.) .....						
Wetmore, Jerome W., Erie, Pa. Vehicle-seat spring .....	389,033	Sept. 4	333	87	44	1135
Wetmore, Jerome W., Erie, Pa. Vehicle-holster spring .....	389,034	Sept. 4	334	87	44	1135
Wetmore, Jerome W., Erie, Pa. Vehicle-spring .....	389,035	Sept. 4	335	88	44	1136
Wetmore, William W., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge-reloading implement .....	376,930	Jan. 24	1175	462	42	358

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Wetmore, Willis H. (See Emerson and Wetmore.)						
Wetmore, Willis H., Burlington, assignor to Willard Manufacturing Company, St. Albans, Vt. Suspenders	387,129	July 31	2679	702	41	549
Wetter & Co., Joseph. (See Wicht, Frank W., assignor.)						
Wetter, Joseph. (See Reinhardt, James H., assignor.)						
Wettstein, Herman, Harvard, Ill. Auxiliary steering-brake for vessels	395,023	Dec. 25	2010	513	45	1487
Wetzler, Joseph and S., Hoboken, N. J. Electro-magnetic bell	378,124	Feb. 21	1168	304	42	743
Wetzler, Signund. (See Wetzler, Joseph and S.)						
Weyer, La Fayette T., Sopchoppy, Fla. Vehicle-axle	387,028	July 31	2518	662	44	521
Weyburn, Lewis A., and G. S. Briggs, Rockford, Ill. Clevis for plows	376,792	Jan. 21	1561	409	42	321
Weyer, August, Atlanta, Ga. Gas-generator	377,793	Feb. 14	704	177	42	644
Weyman, Adolph, Brooklyn, N. Y. Saw	385,079	June 26	1867	477	43	1504
Weymouth, George W. (See Houghton and Fox, assignors.)						
Whalen, Christopher, et al. (See Rafferty, William J., assignor.)						
Whalen, Frank T., New York, N. Y. Water-proof structure in buildings	389,914	Sept. 25	1707	432	44	1120
Whalen, Henry W. (See Preston and Whalen.)						
Whalen, Michael H., assignor to himself, J. C. Van Brunt, and E. L. Sinsabaugh, Brooklyn, N. Y. Releasing device	381,106	June 5	383	107	43	1194
Whaling, John H., Kingman, Kans. Securing the fastenings of drilling-tools	387,475	Aug. 7	406	106	44	652
Wharton, Jr., and Company, William. (See Barge, George H., assignor.)						
Wharton, Jr., and Company, William. (See Quinn, James, Jr., assignor.)						
Wharton, John C., Nashville, Tenn. Ice-shaver	377,365	Jan. 31	2388	620	42	485
Wharton, William J., Washington, D. C. Privy	350,540	Apr. 3	352	101	43	72
Wharton, William J., Washington, D. C. Ticket-holder	386,730	July 24	2046	539	44	423
Whalley, George W., Dallas County, assignor of one-half to G. W. Marris, Rockwall County, Tex. Plow	387,385	Aug. 7	281	72	44	626
Whelan, Charles. (See Heffner, George W., assignor.)						
Wheat, Albert, Reading, N. Y. Portable fence	381,306	Apr. 17	1500	406	43	310
Wheat, Corydon, Geneva, N. Y. Boiler	385,830	July 10	742	194	44	152
Wheeler, Adamron J. (See Higgins and Wheeler.)						
Wheeler, Alden D., Hyde Park, Mass. Apparatus for testing electric circuits	383,665	May 29	2574	681 682	43	1040
Wheeler, Benjamin F., and F. W. MacQuesten, Detroit, Mich., assignors to Detroit Stay Company. Garment-stay	388,936	Sept. 4	191	51	41	1110
Wheeler, Cyrenus, Jr. (See Fitch, Edwin R., assignor.)						
Wheeler, Earl A., Sharon, Pa. Blast-furnace	378,749	Feb. 28	2085	550	42	925
Wheeler, Edward H., Waterbury, Conn. Buckle	381,973	May 1	112	27	43	535
Wheeler, Edward H., Waterbury, Conn. Buckle	385,651	July 3	479	124	44	93
Wheeler, Elbridge, assignor to himself, W. B. Gay, and G. W. Gogin, trustees, Boston, Mass. Manufacture of wire	378,031	Feb. 11	1034	270	42	709
Wheeler, Frank, Meriden, Conn. Device for setting up rigging	377,055	Jan. 31	1929	507	42	399
Wheeler, Frank, Meriden, Conn. Shock-arrester for the rigging of vessels	381,008	June 5	245	71	43	1169
Wheeler, Frederick G. (See Gridley, Frank J., assignor.)						
Wheeler, Frederick M. (See Fogarty and Wheeler.)						
Wheeler, George E., Chazy, N. Y. Cover for evaporating-pans	393,196	Nov. 20	1488	388	45	898
Wheeler, Herbert F. (See Williams, Allen G., assignor.)						
Wheeler, John E. (See Reed and Wheeler.)						
Wheeler, John T., Chicago, Ill. Fuel cartridge	382,671	May 8	1205	312	43	750
Wheeler, Madden & Cleinson Manufacturing Company. (See Clemson, George N., assignor.)						
Wheeler, Michael S., et al. (See Young, John R., assignor.)						
Wheeler, Orrin A., Springfield, Mo. Wheeled coaster	381,661	Apr. 24	2044	535	43	434
Wheeler, Roscoe B., Detroit, Mich. Garment-stay	379,882	Mar. 20	1533	404	42	1273
Wheeler, Samuel, Morton's Corners, N. Y. Sleigh	389,493	Nov. 27	1934	506	45	993
Wheeler, Schuyler S., New York, N. Y. Electric switch	385,782	July 10	675	176	44	140
Wheeler, Seth, Albany, N. Y. Toilet or wrapping paper	386,618	July 24	1891	499	44	395
Wheeler, Seth, Albany, N. Y. Machinery for perforating toilet or wrapping paper	390,327	Oct. 2	178	48	45	34
Wheeler, Seth, Albany, N. Y. Manufacture of perforated wrapping or toilet paper	390,338	Oct. 2	179	49	45	38
Wheeler, Son & Co., Russel. (See Kernan, Francis, Jr., assignor.)						
Wheeler, Thomas A. (See Miller and Wheeler.)						
Wheeler, William H., Spiva, Mo. Animal-weaner	377,794	Feb. 14	706	177	42	645
Wheeler, William O., Sharon, Conn. Fire-place	394,042	Dec. 4	450	121	45	1157
Wheeler, William P., assignor to himself and J. S. Cain, Louisville, Ky. Car-stove	385,491	July 3	238	62	44	48
Wheeler, William W., Meriden, Conn. Amalgamating gold and silver	378,750	Feb. 28	2087		42	926
Wheeler & Wilson Manufacturing Company. (See Dial, Wilbur F., assignor.)						
Wheeler & Wilson Manufacturing Company. (See Dimond and Campbell, assignors.)						
Wheeler & Wilson Manufacturing Company. (See Laubscher, Alexander, assignor.)						
Wheeler & Wilson Manufacturing Company. (See Neely, William A., assignor.)						
Wheeler & Wilson Manufacturing Company. (See Neely and Rowell, assignors.)						
Wheelock, Arnold A., Washington, D. C. Shutter-blower	378,346	Feb. 21	1512	395	42	806
Wheelock, Bloomfield J., New York, N. Y. Electrolyte for galvanic batteries	383,028	June 26	1783		43	1468
Wheelock, Bloomfield J. and J. W., New York, N. Y. Porous cup for electric batteries	386,569	July 21	1832	454	44	382
Wheelock, James W. (See Wheelock, Bloomfield J. and J. W.)						
Wheelock, Luke, New Haven, Conn. Velocipede	390,733	Oct. 9	745	195	45	155
Wheat, Edward T., Oakland, Cal. Lever-power engine	378,155	Feb. 21	1232	319	42	751
Whelan, John, assignor of one-third to J. Nolan, Washington, D. C. Electrical conduit	393,346	Nov. 20	1702	450	45	941
Whelan, Robert, Chicago, Ill. Car heater	357,937	Aug. 11	1125	300 301	44	796
Whelan, Robert, assignor of one-half to R. A. Whelan, Chicago, Ill. Steam-boiler furnace	375,965	Jan. 3	237	61	42	49
Whelan, Robert A. (See Whelan, Robert, assignor.)						
Whelless, Wesley N., Augusta, Ga. Pencil-sharpener	377,974	Feb. 14	958	250	42	695
Whelpley, James A., assignor to Keene Manufacturing Company, Keene, N. H. Skate	377,703	Feb. 7	531	136	42	594
Whelpley, James A., assignor to Keene Manufacturing Company, Keene, N. H. Skate	377,704	Feb. 7	533	136	42	595
Wherry, John R., and H. H. Rottaken, assignors of one-half to D. Adams, Little Rock, Ark., and H. Schmasen, St. Louis, Mo. Measuring bottle or flask	386,418	July 17	1604	421	44	331
Wherry, John R., and H. H. Rottaken, assignors of one-half to D. Adams, Little Rock, Ark., and H. Schmasen, St. Louis, Mo. Registering faucet	386,419	July 17	1506 422	421	44	331
Wherry, William N., Plymouth, Mich. Mole-trap	393,048	Nov. 20	1285	323	45	858
Whilden, David T., Stockton, Ga. Stalk-puller	389,348	Sept. 11	832	212	41	1239
Whipery, David A., assignor of one-third to M. E. Held, Anthony, Kans. Windmill	387,938	Aug. 11	1127	301	41	797
Whipple, Attis A., Kansas City, Mo. Account-book	386,370	July 17	1519	402	44	311
Whipple, Edinger E., Eaton Rapids, Mich. Harrow	392,654	Nov. 13	706	178	45	736
Whipple, George E. (See Dickerman, Elmer W., assignor.)						
Whipple, Joel N., Volga, Iowa. Stem winding and setting watch	381,601	Apr. 24	1963	517	43	417

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr's.	Vol.	Page.
Whipple, Leander E., New York, N. Y. Pliers.....	393,494	Nov. 27	1935	506	45	593
Whipple, Madison, <i>et al.</i> (See Erwin, Charles M., assignor.)						
Whipple, S. Arca, Detroit, Mich. Underground conduit for electric railways.....	380,469	Apr.	239	65	43	40
Whitaker, Edward N., Cleveland, Ohio. Bolt-heading machine.....	385,080	June 26	1868	477	43	1504
Whitaker, Edwin V., Gloversville, N. Y. Glove.....	390,540	Oct. 2	487	127	45	98
Whitaker, George, London, county of Middlesex, and L. L. B. Williams, Shortlands, county of Kent, England. Apparatus for pressing trousers.....	380,965	Apr. 10	1001	256 257	43	203
Whitaker, John C. (See Bound, John, assignor.)						
Whitaker, John H., Davenport, Iowa. Trotting-harness.....	377,727	Feb. 7	559	144	42	600
Whitaker, Richard, New Brunswick, N. J., assignor to Consolidated Fruit Jar Company, New York, N. Y. Torch.....	391,669	Oct. 23	2072	561	45	427
Whitaker, Thomas, Horsforth, near Leeds, county of York, England. Excavating and machinery therefor.....	376,793	Jan. 24	1562	410	42	332
Whitaker, Thomas H., Youngsville, N. C. Side-hill reversible plow.....	376,931	Jan. 24	1756	462	42	378
Whitall, Tatam & Co. (See Tatam, Charles A., assignor.)						
Whitcher & Emery. (See Knell, John, assignor.)						
Whitcomb, Alice V. (See Pillsbury, Samuel G., assignor.)						
Whitcomb Envelope Company. (See Swift, Henry D. and D. W., assignors.)						
Whitcomb, Joseph S., Minneapolis, Minn. Excavator.....	378,125	Feb. 21	1168	304 305	42	743
Whitcomb, Joseph S., Minneapolis, Minn. Excavating apparatus.....	387,476	Aug. 7	407	107	44	652
White, Albert M., assignor to Patent Button Company, Waterbury, Conn. Rivet-setting machine.....	394,743	Dec. 18	1543	403	45	1389
White, Aldamar F., and M. M. Flynn, Woonsocket, R. I. Wringer.....	380,234	Mar. 27	2037	544	42	1381
White, Alice, assignor of one-half to R. S. Mallary, Detroit, Mich. Bustle.....	3-3,421	May 23	2302	611	43	979
White, Ansley D., Buffalo, N. Y. Bit-brace.....	378,274	Feb. 21	1406	368	42	785
White & Bro., S. R. (See Harwood and White, assignors.)						
White, Charles E., assignor to Deere & Mansur Company, Moline, Ill. Corn-planter.....	379,838	Mar. 20	1453	384 385	42	1257
White, Charles H. (See Billups, Samuel R., assignor.)						
White, Charles H., New York, N. Y. Passenger-car.....	389,728	Sept. 18	1421	371	44	1356
White, Charles H., Boston, Mass. Hot-air furnace.....	390,107	Sept. 25	1988	529	44	1477
White, Charles J. (See Babcock, Edward G., assignor.)						
White, Charles J., New Britain, Conn. Spring-clasp.....	380,154	Mar. 27	1927	514	42	1359
White, Charles W. (See Thurston, Harrison P., assignor.)						
White & Co., W. E. (See Lenu, Gustavus A., assignor.)						
White, David S., Minneapolis, Minn. Hoisting and loading machine.....	377,183	Jan. 31	2106	555 556	42	435
White Dental Manufacturing Company, S. S. (See Bonwill, William G. A., assignor.)						
White Dental Manufacturing Company, S. S. (See Custer, Levitt E., assignor.)						
White Dental Manufacturing Company, S. S. (See How, Woodbury S., assignor.)						
White Dental Manufacturing Company, S. S. (See Moffitt, John W., assignor.)						
White Dental Manufacturing Company, S. S. (See Starr, E. Eugene, assignor.)						
White Dental Manufacturing Company, S. S. (See Starr, Eli T., assignor.)						
White Dental Manufacturing Company, S. S. (See Wilkerson, Basil M., assignor.)						
White, Duncan C. (See Binkert, Aaron T., assignor.)						
White, Eli, Mount Morris, N. Y. Fruit-evaporator.....	378,483	Feb. 28	1712	452	42	854
White, Elisha L., Handley, Tex. Lock-hopple.....	394,660	Dec. 18	1424	371	45	1363
White, Elmer B., Ithaca, N. Y. Combined easel and hanger.....	395,301	Dec. 25	2446	629	45	1567
White, Frank A., deceased, Candor, N. Y.; L. F. and M. A. White, administrators. Folding table.....	376,726	Jan. 17	1445	379	42	291
White, Frank G., Englewood, Ill. Screw-propeller for vessels.....	382,398	May 8	782	199	43	668
White, Frank R. (See Platt and White.)						
White, George A., Sharon, assignor of one-half to W. H. Bense, Canton, Mass. Molder's draw-iron.....	383,203	May 22	1974	519	43	920
White, H. F. (See Johnson, Osro P., assignor.)						
White, Harry D., Cottonwood, Cal. Horse-power pumping apparatus.....	380,840	Apr. 10	805	219	43	167
White, Harvey, Syracuse, N. Y., assignor to Whitman & Barnes Manufacturing Company of Ohio. Machine for heating and hardening metal articles.....	383,030	May 15	1712	445 446	43	859
White, Henry C., New York, N. Y. Separator.....	386,173	July 17	1932	329	41	256
White, Jacob R., Greenville, Ala. Cotton-planter.....	380,841	Apr. 19	806	219	43	167
White, James, Brooklyn, N. Y. Heating-furnace.....	381,307	Apr. 17	1509	407	43	310
White, James, assignor to National Safe and Lock Company, Cleveland, Ohio. Safe-lock.....	381,823	Apr. 24	2398	623	43	501
White, James E., Malden, assignor to J. W. Tufts, Medford, Mass. Ice-pitcher.....	377,820	Feb. 14	736	186	42	649
White, Jesse, Silver Cliff, Colo. Ore-concentrator.....	382,576	May 8	1066	272	43	723
White, John, <i>et al.</i> (See Leahy, Edward C., assignor.)						
White, John Z., Logansport, Ind. Bell-ringing mechanism.....	385,029	June 26	1784	460	41	1188
White, Joseph J. (See Bair, Joseph L., assignor.)						
White, Joseph W., assignor of one-half to W. S. Tyler, Cleveland, Ohio. Wire-cloth lathing.....	391,443	Oct. 23	1771	474	45	363
White, Le Roy S., Union, N. Y. Axle-clip.....	379,839	Mar. 20	1456	385	42	1258
White, Le Roy S., assignor to Electrical Appliance Manufacturing Company, Waterbury, Conn. Electric gas-lighting burner.....	377,505	Feb. 7	242	59	42	541
White, Lewis B. (See Harwood and White.)						
White, Lewis P., and J. D. Benson, Terra Alta, W. Va. Registering attachment for measuring faucets.....	384,805	June 19	1138	377	43	1412
White, Lloyd E. (See Ryder, Henry M., assignor.)						
White, Louisa F., administratrix, <i>et al.</i> (See White, Frank A.)						
White, Lyman T., Eaton Rapids, Mich. Pipe-coupling.....	377,130	Jan. 31	2043	535	42	471
White, Martin E., White Mills, Ky. Plant-puller.....	390,049	Sept. 25	1899	501	44	1459
White, Morgan A., administrator, <i>et al.</i> (See White, Frank A.)						
White, Oscar C., Wichita, Kans. Wrench.....	390,422	Oct. 2	214	82	45	67
White, Otis C., Worcester, Mass. Photographic head-screen.....	382,125	May 1	367	96	43	581
White, Peter, St. Louis, Mo. Water-closet.....	393,676	Nov. 27	2215	580	45	1052
White, Peter, St. Louis, Mo. Hydrant.....	394,529	Dec. 11	1177	306	45	1303
White, Reynolds T., Boston, Mass. Track for street-railways.....	375,849	Jan. 3	163	45	42	36
White, Reynolds T., Boston, Mass. Street-railway construction.....	375,850	Jan. 3	164	46	42	36
White, Reynolds T., Boston, Mass. Construction of street-railways.....	375,851	Jan. 3	165	46	42	37
White, Reynolds T., Boston, Mass. Street-railway construction.....	375,852	Jan. 3	166	46	42	37
White, Reynolds T., Boston, Mass. Street-railway construction.....	375,853	Jan. 3	166	46	42	37
White, Reynolds T., Boston, Mass. Street-railway construction.....	375,854	Jan. 3	167	47	42	37
White, Reynolds T., Boston, Mass. Street-railway construction.....	375,855	Jan. 3	168	47	42	38
White, Reynolds T., Boston, Mass. Combined sleeper and chair for street-railways.....	375,856	Jan. 3	169	47	42	38
White, Reynolds T., Boston, Mass. Metallic tie or sleeper for railways.....	385,395	July 3	81	23	44	18
White, Reynolds T., Boston, Mass. Metallic tie or sleeper for railways.....	386,420	July 17	1607	422	44	331



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr.	Vol.	Page.
White, Reynolds T., Boston, Mass. Street-railway rail	395,302	Dec. 25	2446	629	45	1567
White, Robert A. A. (See White, William G. and R. A. A.)						
White, S. S. (See Sutton, George L., assignor.)						
White, Samuel K., assignor to S. Smith, Chicago, Ill. Numbering-machine	381,974	May 1	113	27	43	535
White Sewing Machine Company. (See Baker, George W., assignor.)						
White Sewing Machine Company. (See Clyne, James B., assignor.)						
White Sewing Machine Company. (See Williams, Le Roy, assignor.)						
White, Stephen J., Millstadt, Ill. Fence-machine	393,732	Nov. 27	2286	600	45	1065
White, Thomas, Peckskill, N. Y. Horse-detacher	379,352	Mar. 13	703	191	42	1105
White, Thomas R., Philadelphia, Pa. Oil-burner	387,275	Aug. 7	107	29	44	593
White, William E., assignor of one-half to J. M. Reando, Lynn, Mass. Pinchers	385,030	June 26	1785	461	43	1488
White, William G., Anerley, county of Surrey, and R. A. A. White, Crayford, county of Kent, England. Polychromatic-printing block	386,859	July 31	2276		44	474
White, William G., Anerley, county of Surrey, and R. A. A. White, Crayford, county of Kent, England. Composition for polychromatic-printing blocks	388,099	Aug. 21	1382	372	44	853
White, William J., Cleveland, Ohio. Machine for manufacturing chewing-gum	378,037	Feb. 28	1327	511	42	897
White, William J., Cleveland, Ohio. Confectionery-box	383,606	May 29	2755	682	43	1040
White, William R., Washington, Iowa. Gate-latch	376,568	Jan. 17	1188	315	42	242
White, William R., Neoga, Ill. Gate	378,275	Feb. 21	1407	368	42	785
White, William R., Neoga, Ill. Sliding gate	380,613	Apr. 3	462	131	43	94
White, William R., Neoga, Ill. Securing device for gates	392,297	Nov. 6	171	45	45	626
White, William R., Neoga, Ill. Gate	392,655	Nov. 13	707	178	45	736
White, William W., assignor to Rogers & Brother, Waterbury, Conn. Rack for electro-plating	384,806	June 19	1439	377	43	1412
Whited, Alvinze, assignor to Holmes & Ide, Troy, N. Y. Making cuffs	378,032	Feb. 14	1035	271	42	709
Whitehall, Curtis, Melott, Ind. Cultivator	379,430	Mar. 13	822	221	42	1128
Whitehead, Henry W. (See Pickles and Whitehead.)						
Whitehead, Herbert L., Indianapolis, Ind. Collapsible chair	379,670	Mar. 20	1187	314	42	1205
Whitehead, Samuel B., San Francisco, Cal. Telegraphic apparatus	376,569	Jan. 17	1188	315	42	243
Whitehead, Will G., et al. (See Skiles, Robert I., assignor.)						
Whitehead, William, New York, N. Y. Steering mechanism for vessels	379,840	Mar. 20	1157	385	42	1258
Whitehead, William W., New York, N. Y. Window-shade	394,235	Dec. 11	740	196	45	1221
Whitehill, David B., North Clarendon, Pa. Pipe-wrench	388,607	Aug. 28	2158	579	44	1009
Whitehill, Robert. (See Dixon, Charles A., assignor.)						
Whitelaw, James, St. Louis, Mo. Pertorator	380,614	Apr. 3	464	131	43	94
Whiteley, Alfred M., Brooklyn, N. Y. Step-ladder	378,638	Feb. 28	1929	512	42	897
Whiteley Company, William N. (See Dyer and Graham, assignors.)						
Whiteley, Edward, Lockwood, near Huddersfield, county of York, England. Lubricating device	392,479	Nov. 6	450	113	45	680
Whiteley, Fassler & Kelly. (See Whiteley and Bayley, assignors.)						
Whiteley, Fassler & Kelly. (See Whiteley and Brown, assignors.)						
Whiteley, William N., Springfield, Ohio. Grain-binder	376,123	Jan. 10	564	149 150 156 157	42	119
Whiteley, William N., Springfield, Ohio. Harvester and binder	376,763	Jan. 24	1503	396 397	42	311
Whiteley, William N., Springfield, Ohio. Knotting device for grain-binders	378,815	Feb. 28	2195	584	42	947
Whiteley, William N., Springfield, Ohio. Grain-binding harvester	378,817	Feb. 28	2200	586	42	948
Whiteley, William N., and W. Bayley, Springfield, Ohio. Combined harvester and binder	378,814	Feb. 28	2193	583 584	42	946
Whiteley, William N., and W. Bayley, Springfield, Ohio. Device for attaching wheels to shafts	392,480	Nov. 6	451	113	45	680
Whiteley, William N., and W. Bayley, Springfield, Ohio; said Bayley assignor to said Whiteley. Harvester	381,308	Apr. 17	1511	407 408	43	311
Whiteley, William N., and W. Bayley, assignors to Toronto Reaper and Mower Company, Springfield, Ohio. Mowing-machine	378,816	Feb. 28	2197	585 586	42	947
Whiteley, William N., and W. Bayley, assignors to Whiteley, Fassler & Kelly, Springfield, Ohio. Harvester and binder	375,971	Jan. 3	332	89 90 91	42	69
Whiteley, William N., and R. Brown, assignors to Whiteley, Fassler & Kelly, Springfield, Ohio. Grain-binder	377,093	Jan. 31	1992	521 522 523	42	411
Whiteley, William N., and S. Dyer, Springfield, Ohio, assignors to said Whiteley. Knotting device for grain-binders	379,622	Mar. 20	1119	296 297 466 467	42	1192
Whiteley, William N., O. E. and A. S. Perrigo, Springfield, Ohio, assignors to said Whiteley. Bolt-heading machine	383,083	May 15	1800	468 469 470 471	43	876
Whiteman, Abraham V. (See Carl, George L., assignor.)						
Whiter, James J., Brooklyn, N. Y. Coupling for boilers, tanks, &c	377,506	Feb. 7	245	59	42	541
Whitesell, David P., El Dorado, Ohio. Engine cross-head	388,937	Sept. 4	196	52	44	1110
Whiting, Joseph E., Montrose, Pa. Saw-set	392,388	Nov. 6	318	79	45	654
Whiting, Louis R., Fort Worth, assignor of one-fourth to A. Muckle, Bobbin, Tex. Machine for shucking and shelling corn	382,285	May 1	602	152	43	623
Whiting, Phineas S. (See Meloon and Whiting.)						
Whiting, Preston, H., assignor of one-half to H. Malmberg, Cortland, N. Y. Vehicle-spring	385,334	June 26	2255	577	43	1581
Whiting, William F., Providence, R. I. Plating ingots	385,783	July 10	676	176	44	140
Whiting, William F., Norwood, assignor to H. and S. C. Howard, Providence, R. I. Button or stud	386,762	July 21	2092	550	44	431
Whiting, William F., assignor to H. and S. C. Howard, Providence, R. I. Button	386,763	July 24	2094	550	44	432
Whiting, William F., assignor to H. and S. C. Howard, Providence, R. I. Button or stud	386,764	July 21	2094	550	44	432
Whiting, William S., assignor of one-half to C. F. Trott, Waterbury, Conn. Automatic railway-gate	392,769	Nov. 13	879	224 225	45	771
Whitinsville Spinning Ring Company. (See Trowbridge, Charles E., assignor.)						
Whitledge, Thomas B., G. W. Kenner, and M. Rueckert, St. Mary's, Mo. Tobacco-pipe	388,235	Aug. 21	1603	429	44	805
Whitlock, Eleanor C., London, county of Middlesex, England. Device for preventing purses from being stolen from the pocket	391,043	Dec. 4	452	121	45	1157
Whitlock, Thomas H., et al. (See King, William J., assignor.)						
Whitman & Barnes Manufacturing Company of Ohio. (See White, Harvey, assignor.)						
Whitman, Charles E. and H. L., St. Louis, Mo. Friction-clutch and brake for baling-presses	392,898	Nov. 13	1060	274 275	45	807

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g	Vol.	Page.
Whitman, Henry L. (See Whitman, Charles E. and H. L.)						
Whitman, James N., Fulton, N. Y. Apparatus for reeling metallic bands	386,908	July 31	2352	618	44	488
Whitman, Louis F. (See Regan, Dennis J., assignor.)						
Whitman, Walter W. (See Henry, James F., assignor.)						
Whitman, William E., Winthrop, Me. Feed-cutter	380,966	Apr. 10	1002	257	43	204
Whitmarsh, Henry C., Brooklyn, assignor to himself and C. C. Carpenter, New York, N. Y. Buckle	378,991	Mar. 6	190	52	42	1003
Whitmore, Andrew E., Springfield, Mass. Breech-loading fire-arm	386,174	July 17	1233	329 330	44	257
Whitmore, Charles M., Meriden, Conn. Frame	375,906	Jan. 3	239	65	42	50
Whitmore, Charles M., Meriden, Conn. Wood-screw	375,907	Jan. 3	240	65	42	50
Whitmore, George E., New Haven, Conn. Wheel	379,841	Mar. 20	1460	386	42	1259
Whitmore, James H., <i>et al.</i> (See Hecox, Charles, assignor.)						
Whitner, Hiram K., New York, N. Y. Railway-switch	390,734	Oct. 9	746	195 196	45	155
Whitner, Hiram K., New York, N. Y. Railway-switch	394,744	Dec. 18	1544	403	45	1389
Whitner, Hiram K., assignor to H. H. Wibirt, trustee, New York, N. Y. Cut-off to prevent freezing in water-pipes	386,098	July 10	1127	300	44	228
Whitney, Amos, <i>et al.</i> (See Johnson, Moses C., assignor.)						
Whitney, Amos, assignor to Pratt & Whitney Company, Hartford, Conn. Drilling machine	376,838	Jan. 24	1634	426 427	42	334
Whitney, Amos, assignor to Pratt & Whitney Company, Hartford, Conn. Center-drilling machine	390,108	Sept. 25	1989	529	44	1478
Whitney, Baxter D., Winchendon, Mass. Sharpening-machine	390,931	Oct. 9	1027	271	45	208
Whitney, Benjamin F., Portland, Me. Boot or shoe	377,416	Feb. 7	110	23	42	515
Whitney, Christopher F., Newton, assignor to Hill, Whitney & Co., Boston, Mass. Culinary utensil	385,688	July 3	529	138	44	104
Whitney, Daniel D., Cornwall, N. Y., assignor of one-half to S. Weart, Jersey City, N. J. King-bolt for vehicles	376,618	Jan. 17	1275	333	42	259
Whitney, Edwin H. (See Gueter and Whitney.)						
Whitney, Edwin H., assignor to Standard Electric Company of Vermont, St. Johnsbury, Vt. Electric therapeutic device	376,018	Jan. 3	405	107	42	81
Whitney, Edwin H., assignor to Standard Electric Company of Vermont, St. Johnsbury, Vt. Automatic grain-weighing apparatus	377,591	Feb. 7	354	92	42	563
Whitney, Edwin H., assignor to Standard Electric Company of Vermont, St. Johnsbury, Vt. Apparatus for tilling ground	385,984	July 10	960	255	44	196
Whitney, Eli, New Haven, Conn. Breech-loading fire-arm	389,036	Sept. 4	335	88	44	1136
Whitney, Frank E., Melrose, Mass. Device for connecting motors to organs	387,366	Aug. 7	282	72	44	626
Whitney, Hugh M., assignor of one-fourth to L. Wilson, Avenue City, Mo. Automatic feed-gate	388,161	Aug. 21	1507	401	44	875
Whitney, Isaac, Lynnvile, Iowa. Washing-machine	376,932	Jan. 24	1758	462	42	378
Whitney, James H., Brooklyn, N. Y. Treadle	394,626	Dec. 18	1351	353	45	1350
Whitney, Pardon A., Southington, Conn. Clamp-screw	388,007	Aug. 11	1232	334	41	818
Whitney, Pardon A., assignor to Peck, Stow & Wilcox Company, Southington, Conn. Clamp	385,983	July 10	959	255	44	196
Whitney, William, Gouverneur, N. Y. Alterative tonic	378,156	Feb. 21	1223		42	751
Whitney, William C. (See Hutchins, Wilbur W., assignor.)						
Whitney, William C., Newport, Vt. Tubular lantern	388,470	Aug. 28	1967	527 528	44	971
Whitson, Robert J., Chicago, Ill. Alarm-bell	382,343	May 8	698	175	43	651
Whittaker, Ellen V. (See Whittaker, Victor H., assignor.)						
Whittaker, Richard, 105 Hutton Garden, county of Middlesex, England. Vending apparatus	367,670	Aug. 11	716	184	41	717
Whittaker, Victor H., Bradford, assignor to himself and E. V. Whittaker, Gloucester, Mass. Rounding-out machine	384,807	June 19	1440	377	43	1412
Whittaker, William, Burnley, county of Lancaster, England. Mechanical stoker	394,426	June 12	954	247	43	1310
Whitteck, Paul, Butler, N. J. Automatic weighing-scale for liquids	382,849	May 15	1441	379	43	807
Whittenore, George D., <i>et al.</i> (See Van Winkle, Asa T., assignor.)						
Whittenore, James M., West Troy, N. Y., assignor of one-half to G. S. Prindle and P. G. Russell, Washington, D. C. Fastening for belts	391,103	Oct. 16	1306	348	45	267
Whitten, Archie L., Russell, Iowa. Machine for reeling and unreeling wire	391,497	Oct. 23	1846	494	45	379
Whitten, James O. (See Serson, James, assignor.)						
Whittier, David L. (See Cornelius, Wilber F., assignor.)						
Whittier, David L. (See Fulton and Cornelius, assignors.)						
Whittier, Thomas F., East Saginaw, Mich. Galvanic-battery excitant	383,263	May 22	2073	544	43	939
Whittingham, Alfred C., Toledo, Ohio. Combined necktie and collar-button	383,929	June 5	133	38	43	1146
Whittle, James H., Worcester, Mass. Conductor for ashes	377,921	Feb. 14	878	225	42	678
Whittle, William C., Norfolk, Va. Buoy	390,050	Sept. 25	1900	501	44	1459
Whittlesey, Elisha J. (See Fry, Isaac H., assignor.)						
Whittlesey, George P., assignor of one-half to L. C. Whittlesey, Washington, D. C. Bottle attachment	378,276	Feb. 21	1408	368	42	786
Whittlesey, Lillian C. (See Whittlesey, George P., assignor.)						
Whittly, Josiah. (See Lester and Whittly.)						
Whitty, Lewis, Pollocksville, N. C. Agricultural implement	378,347	Feb. 21	1513	395	42	806
Whitworth & Sons, <i>et al.</i> (See Pulliam, Luther, assignor.)						
Whyman, Horatio O., Norfolk, Nebr. Nut-lock	378,563	Feb. 28	1829	482	42	876
Whyte, Charles C. B., Hatley Manor, Carrick-on-Shannon, county of Leitrim, Ireland. Safety-holder for fire-arms	393,677	Nov. 27	2216	580	45	1052
Whyte, George. (See Anderson, Alexander, assignor.)						
Wiard, George, assignor to Wiard Plow Company, Batavia, N. Y. Plow	386,443	July 17	1636	430	44	339
Wiard, Gilbert L. (See Hooton and Wiard.)						
Wiard Plow Company. (See Wiard, George, assignor.)						
Wibirt, Henry H., trustee. (See Whitner, Hiram K., assignor.)						
Wicht, Frank W., assignor to J. Wetter & Co., Brooklyn, N. Y. Numbering-head	391,289	Oct. 16	1531	414	45	315
Wick, George C. (See Wick, Ole E. and G. C.)						
Wick, Ole E. and G. C., Humboldt Park, Ill. Combined desk and organ	385,031	June 26	1786	461	43	1488
Wicke, Wilhelm, Cleveland, Ohio. Grate	389,489	Sept. 11	1043	278	44	1278
Wickens, Albert M. (See Taylor and Wickens.)						
Wickey, Andrew, Quincy, Ill. Baling-press	392,085	Oct. 30	2687	711	45	557
Wickey, Andrew, Quincy, Ill. Combined rake and tedder	392,705	Nov. 13	776	196 197	45	750
Wicks, Edward, Brooklyn, N. Y. Door-check	390,274	Oct. 2	104	39	45	24
Wicks, Thomas. (See Frank and Wicks.)						
Wickwire Brothers. (See Wickwire, Chester F., assignor.)						
Wickwire, Chester F., assignor to Wickwire Brothers, Cortland, N. Y. Machine for winding bobbins	390,932	Oct. 9	1029	271	45	209

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Wickwire, Chester F. and T. H., Cortland, N. Y. Machine for winding wire upon spools, &c.	395,255	Dec. 25	2386	611	45	1555
Wickwire, Theodoro H. (See Wickwire, Chester F. and T. H.)						
Widdifield, Watson P., Uxbridge, Ontario, Canada, and A. H. Bowman, Packerton, Pa. Electric-brake system	394,627	Dec. 18	1352	353 354	45	1350
Widman, Henry A., Jr., St. Louis, Mo. Carpet-cleaner and dust-conveyer	383,422	May 22	2303	611	43	979
Widmayer, Charles O., Chicago, Ill. Portable head-rest	394,044	Dec. 4	452	121	45	1158
Wiecking, Christian W., Jr., Walhalla, S. C. Car-heater	381,490	Apr. 17	1792	477	43	365
Wied, August, and H. Lürssen, Sweet Home, Tex. Plow	388,165	Aug. 21	1508	402	44	875
Wiederer, Leonhard, New York, N. Y. Hand-mirror	377,282	Jan. 31	2259	597	42	462
Wiederer, Peter, Stapleton, N. Y. Folding mirror	381,452	Apr. 17	1740	465	43	355
Wiederer, Peter, Stapleton, N. Y. Mirror	384,808	June 19	1442	378	43	1413
Wiederer, Peter, Stapleton, N. Y. Folding mirror	384,809	June 19	1443	378	43	1413
Wiederer, Peter, Stapleton, N. Y. Folding mirror	387,387	Aug. 7	983	72	44	626
Wiederer, Peter, Stapleton, N. Y. Folding mirror	393,678	Nov. 27	2216	581	45	1052
Wiederer, Peter, Stapleton, N. Y. Toilet-case and triplicate mirror	393,679	Nov. 27	2217	581	45	1052
Wiedling, Carl T. A. H., New York, N. Y., assignor to J. S. Connelly, Plainfield, N. J., and T. E. Connelly, Brooklyn, N. Y. Device for transmitting power	384,598	June 12	1132	298 299	43	1343
Wiedling, Hermann, assignor to Wiedling Motor Company, New York, N. Y. Automatic car-brake	378,992	Mar. 6	191	52, 53	42	1003
Wiedling Motor Company. (See Wiedling, Hermann, assignor.)						
Wiedmann, John, assignor to A. X. Schwebel, Cincinnati, Ohio. Catch-basin	377,056	Jan. 31	1931	507	42	399
Wiegand, Henry H., Baltimore, Md. Connector for secondary batteries	394,897	Dec. 18	1808	468	45	1439
Wiegand, Hermann, assignor of one-half to D. W. Voorhees, Danville, Ill. Manufacture of starch	392,389	Nov. 6	319	-----	45	654
Wiegand, S. Lloyd. (See Flower and Wiegand.)						
Wiegand, S. Lloyd, Philadelphia, Pa., assignor to Germania Bottle Stopper Company, Camden, N. J. Bottle stopper and fastening	379,623	Mar. 20	1122	297	42	1192
Wiegmann, Charles. (See Stecher, Max, assignor.)						
Wieland, Joseph, Olpe, Kans. Egg-cell	390,735	Oct. 9	748	196	45	156
Wien, Julius, assignor of one-third to J. R. Wiggins, Chicago, Ill. Hinge	385,156	June 26	1976	506	43	1527
Wier, Stephen M., New Haven, Conn. Reach-coupling for vehicles	380,541	Apr. 3	354	101	43	72
Wiertz, August, and C. Hansmann, New York, N. Y. Take-up mechanism for looms	392,066	Oct. 30	2688	731	45	558
Wiest, Frank J. (See Michaut, Connoy, and Wiest.)						
Wiest, John, York, Pa. Battery-vessel	378,484	Feb. 28	1714	452	42	854
Wiest, John, York, Pa. Electrical heating apparatus	389,729	Sept. 18	1423	371	44	1357
Wiestner, John H., Philadelphia, Pa. Split-hoof clamp for horses	381,868	Apr. 24	2359	612	43	493
Wigand, Ferdinand, Brooklyn, N. Y. Zither	390,830	Oct. 9	883	234	45	180
Wiggin, Andrew. (See Barber, Wiggin, and Soar.)						
Wiggins, David, London, county of Middlesex, England. Joint for tubular frame-work	389,180	Sept. 4	580	147	44	1179
Wiggins, Fred B. (See Farrar, Cyrus S., assignor.)						
Wiggins, George, Cleveland, Tenn. Buggy-top	378,485	Feb. 28	1715	453	42	854
Wiggins, James R. (See Wien, Julius, assignor.)						
Wiggins, Ransome H., New Salem, Tex. Elevator for cotton-cleaning machines	383,264	May 22	2074	544	43	939
Wiggins, William H., Lapland, Kans. Cultivator	395,098	Dec. 25	2121	548	45	1509
Wigham, John R., Monkstown, county of Dublin, assignor to Ross Patent Lighting Company, (limited), Dublin, Ireland. Oil-lamp for light-houses	387,939	Aug. 14	1128	301 302	44	797
Wight Fire Proofing Company. (See Wight, Peter B., assignor.)						
Wight, Peter B., Hyde Park, Ill., assignor to Wight Fire Proofing Company, of Illinois Fire-proof ceiling	384,947	June 19	1648	428	43	1451
Wight, Willard L., Millbury, Ohio. Baling-press	389,349	Sept. 11	833	213	44	1239
Wightman, Merle J. (See Lemp and Wightman.)						
Wightman, Merle J. (See Urban and Wightman.)						
Wightman, Merle J., and E. Rasmussen, Hartford, Conn. Double-arc lamp	378,818	Feb. 28	2201	587	42	948
Wightman, Merle J., and H. Lemp, Hartford, Conn. Automatic cut-out for incandescent lamps	386,099	July 10	1128	300	44	928
Wiking, Anders F. (See Kemner and Wiking.)						
Wikoff, A. T., et al. (See Bartley, Leon C., assignor.)						
Wilbur, Alfred, Allegheny City, Pa. Pipe-coupling	376,458	Jan. 17	1040	272	42	214
Wilbur, Charles E. (See Foley and Wilbur.)						
Wilbur, George E. (See Walker and Wilbur.)						
Wilbur, John E., Rochester, N. Y. Lamp-stove	382,579	May 8	1071	274	43	724
Wilbur, Manly, Seattle, Wash. Ter. Logging-car	387,477	Aug. 7	408	107	44	652
Wilby, Richard, Miffield, county of York, England. Apparatus for controlling the speed of steam-engines	382,577	May 8	1067	272 273	43	723
Wilcke, Julius C. (See Tilgner and Wilcke.)						
Wilcock, Charles, assignor to M. A. Briggs and D. Dixon, Leeds, county of York, England. Apparatus for oiling rags	391,670	Oct. 23	2073	561 562	45	427
Wilcomb, Frank, San Francisco, Cal. Stocking	378,819	Feb. 28	2205	588	42	949
Wilcomb, Frank, Providence, R. I., assignor to Wilcomb Manufacturing Company, San Francisco, Cal. Knitting-machine	391,348	Oct. 16	1635	433	45	329
Wilcomb Manufacturing Company. (See Wilcomb, Frank, assignor.)						
Wilcox, Amos A., Cleveland, Ohio. Hand-piece for dental engines	391,349	Oct. 16	1637	433	45	329
Wilcox, Crittenden & Co. (See Sage, Charles L., assignor.)						
Wilcox, Darius, Derby, assignor to Wilcox & Howe, Birmingham, Conn. Wagon-spring	381,309	Apr. 17	1515	409	43	311
Wilcox, Edgar A., Monterey, Mich. Plow-beam	377,472	Feb. 7	187	44	42	531
Wilcox, Edward B., et al. (See Kelly, Wallace C., assignor.)						
Wilcox, Edward G., Chicago, Ill. Store-pipe-grooving machine	376,173	Jan. 10	640	171	42	134
Wilcox & Howe. (See Wilcox, Darins, assignor.)						
Wilcox, Isaac F., assignor of one-half to C. Wigg, Ponca, Nebr. Check-row corn-planter	388,749	Aug. 28	2358	636	44	1046
Wilcox, John T., assignor to himself and A. W. Williams, Leominster, Mass. Fountain-pen	393,049	Nov. 20	1286	333	45	859
Wilcox Manufacturing Company. (See Day, Truman H., assignor.)						
Wilcox Manufacturing Company. (See Richards, Marcus C., assignor.)						
Wilcox, Marcus M., assignor of one-fourth to J. Gifford, New Bedford, Mass. Neck-band for bottles	392,390	Nov. 6	320	79	45	655
Wilcox, Paul. (See Rogers, Edmund D., assignor.)						
Wilcox, Robert, London, England. Feathering-propeller	380,967	Apr. 10	1003	258 259	43	204
Wilcox, Samuel V. (See Strader, George, assignor.)						
Wilcox, Stephen, Brooklyn, N. Y. Valve mechanism for engines	382,578	May 8	1069	273 274	43	724
Wilcox, William E., Collamer, assignor of one-half to R. Mohrman, P. Dunlany, F. Wenham, and W. Pitts, Cleveland, Ohio. Steam street-car	391,350	Oct. 16	1638	433 434	45	329

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page.
Wilcox, William R., Portland, Colo. Lock-brake for vehicles	393,949	Dec. 4	312	85	45	1132
Wilcox, William W., Middletown, Conn. Sail-grommet	382,921	May 15	1542	404	43	827
Wilcox, William W., Middletown, Conn. Sail-grommet	382,922	May 15	1542	404	43	828
Wilcox, William W., Middletown, Conn. Sail-grommet	382,923	May 15	1543	404	43	828
Wilcox, William W., Middletown, Conn. Punch and die for sail-grommets, &c.	382,924	May 15	1544	405	43	828
Wilcoxson, Quinn D., Boston Station, Ky. Fence	391,569	Oct. 23	1938	523	45	399
Wild, Fred, Denver, Colo. Furnace	393,409	Nov. 27	1739	475	45	968
Wild, Samuel, Basle, Switzerland. Exercising apparatus	389,692	Sept. 18	1250	327	44	1323
Wilde, Daniel, Washington, Iowa. Grain-weighing machine	391,550	Oct. 23	1939	523	45	400
Wilde, John, assignor to himself and R. B. Banister, Providence, R. I. Cable railway	393,530	Nov. 27	1993	520	45	1007
Wilder, Charles H., Natick, Mass., assignor to Hub Carbon Company, Keenebunk, Me. Mold for forming pieces of carbon for electric purposes	376,019	Jan. 3	407	107 108	42	81
Wilder, Charles O., South Bend, Ind., assignor to Williams, White & Co., Moline, Ill. Machine for forming eyes on rods	383,084	May 15	1808	471	43	877
Wilder, Elihu, Newton, Mass., assignor to Plume & Atwood Manufacturing Company, Waverbury, Conn. Nailing-machine	376,619	Jan. 17	1277	334 335 336	42	259
Wilder, Elihu, Newton, Mass., assignor to Plume & Atwood Manufacturing Company, Waverbury, Conn. Nail	376,620	Jan. 17	1261	336	42	260
Wilder, Francis M., Binghamton, N. Y., assignor, by mesne assignments, to Safety Car Heating and Lighting Company, of New Jersey. Pipe-coupling	385,740	July 10	611	158 159	44	127
Wilder, Francis M., New York, N. Y., assignor, by mesne assignments, to Consolidated Coupling Company, of New Jersey. Car-coupling	394,745	Dec. 18	1546	404	45	1389
Wilder, Francis M., and G. H. Benjamin, New York, N. Y. Flexible piping	376,401	Jan. 10	946	248	42	189
Wildt, Edward A., Long Island City, N. Y. Electric battery	383,548	May 29	2512	663	43	1025
Wildt, Edward A., Long Island City, N. Y. Electro-magnetic door-opener	393,282	Nov. 20	1619	425	45	924
Wiles, John H., Afton, Cal. Road-scraper	391,498	Oct. 23	1847	494	45	379
Wiles, Robert H. (See Waldorf, George M., assignor.)						
Wiles, Robert H., et al. (See Devore, Levi M., assignor.)						
Wiles, Thomas S., Albany, N. Y. Ironing-machine	384,487	June 12	955	248 249	43	1311
Wiley, Abraham L., Bethel, Ind. Car-mover	394,628	Dec. 18	1354	354	45	1350
Wiley, Edgar C., Independence, Va. Automatic grain-weigher	377,417	Feb. 7	111	23	42	515
Wiley, Edgar C., Independence, Va. Hill-side-cultivator	383,607	May 29	2576	682	43	1040
Wiley, Edgar C., Independence, Va. Saw-mill	391,444	Oct. 23	1773	474	45	363
Wiley, Edwin, Brooklyn, N. Y. Manufacture of gold pens	390,933	Oct. 9	1030	272	45	209
Wiley, Edwin, Brooklyn, N. Y. Machine for cross-rolling the nibs of gold-pen blanks	390,934	Oct. 9	1032	272	45	209
Wiley, John, assignor of one-half to H. B. Eaton, Fitchburg, Mass. Band-pulley	382,448	May 8	859	219	43	682
Wiley, William H., Stockton, Kans. Grapple	381,107	June 5	384	108	43	1194
Wiley, William H., Stockton, Kans. Grapple	393,680	Nov. 27	2218	581	45	1053
Wiley, William H., Hartford, Conn. Leggin	386,047	July 10	1044	278	44	213
Wiley, William J. (See Sprague and Wiley.)						
Wilhelm, Jacob, assignor of part to A. H. Grove, New Freedom, Pa. Torpedo-placer	376,020	Jan. 3	409	108	42	81
Wilhelm, Jacob, assignor of one-half to J. E. Cunningham, New Freedom, Pa. Water-motor						
Wilke, Ernst H., Lincoln, Neb. Creamer	388,750	Aug. 28	2360	636	44	1047
Wilke, Ernest H., Lincoln, Neb. Creamer	392,391	Nov. 6	321	79	45	655
Wilke, Joachim, Garrett, Ind. Truss	388,608	Aug. 28	2159	579	44	1009
Wilkening, Gottlieb, Dayton, Ohio. Slate-eraser	382,925	May 15	1544	405	43	828
Wilkening, Gottlieb, Dayton, Ohio. Slate-eraser	390,541	Oct. 2	488	127	45	98
Wilkerson, Basil M., Baltimore, Md., assignor to S. S. White Dental Manufacturing Company, Philadelphia, Pa. Inhaler	378,033	Feb. 14	1036	271	42	709
Wilkes, Gilbert, U. S. Navy, assignor of one-half to L. Duncan, Baltimore, Md. Socket and key for incandescent lamps	379,842	Mar. 20	1461	386	42	1259
Wilkes, Moses, Trenton, N. J. Combined steam-pressure gage and draft-regulator	389,730	Sept. 18	1424	371	44	1357
Wilkes, Moses, Trenton, N. J. Automatic slide-valve cut-off mechanism	389,731	Sept. 18	1426	371 372	44	1357
Wilkin, Alfred, Toledo, Ohio. Apparatus for burning liquid as a fuel	388,327	Aug. 21	1756	469	44	925
Wilkin, George, Dundee, N. Y. Berry or seed gatherer and cleaner	375,787	Jan. 3	89	27	42	22
Wilkin, George, Dundee, N. Y. Berry-harvester	382,745	May 15	1306	343	43	719
Wilkin, Joseph A., Jersey City, N. J. Train time and speed indicator	391,671	Oct. 23	2074	562	45	427
Wilkin Manufacturing Company. (See Johnson, Louis, assignor.)						
Wilkin, Theodore S., Milwaukee, Wis. Screw-cutting die	393,283	Nov. 20	1621	425	45	925
Wilkin, Theodore S., Milwaukee, Wis. Band-saw mill	393,802	Dec. 4	94	27	45	1091
Wilkin, Theodore S., Milwaukee, Wis. Saw-mill dog	394,045	Dec. 4	453	122	45	1158
Wilkin, Theodore S., Milwaukee, Wis. Splice bar for rail-joints	394,629	Dec. 18	1355	354	45	1350
Wilkin, William M., Erie, Pa. Gang-saw mill	380,235	Mar. 27	2038	544	42	1381
Wilkin, William M., Erie, Pa. Gang-saw mill	380,236	Mar. 27	2039	544 545	42	1381
Wilkin, William M., Erie, Pa. Saw-hanging device for gang-saws	389,126	Sept. 4	489	125	44	1164
Wilkins, Alexander G., Meadville, Pa. Machine for rolling wire nails	385,784	July 10	676	177	44	140
Wilkins, Alexander G., Meadville, Pa., assignor to Railway Speed Recorder Company, Kent, Ohio. Button-attaching machine	379,431	Mar. 13	822	221 222	42	1122
Wilkins, Alexander G., assignor of one-half to A. L. Dunbar, Meadville, Pa. Button-setting machine	381,310	Apr. 17	1517	409 410 411	43	311
Wilkins, Charles E., Lowell, Mass. Evening mechanism for railway-heads	392,172	Oct. 30	2837	769 770 771	45	586
Wilkins, George H., Shelburne Falls, Mass., assignor of twelve twenty-fifths to H. H. Sanderson, New York, N. Y., and F. H. Mayhew, Shelburne Falls, Mass. Machine for winding spools	376,124	Jan. 10	566	151 152 153	42	119
Wilkins, James S., Jr., Keene, N. H. Toy locomotive	384,658	June 19	1220	322	43	1369
Wilkins, Joseph, Baltimore, Md. Amalgamator	378,348	Feb. 21	1514	395	42	807
Wilkins, Morris D., assignor to himself and J. J. West, Chicago, Ill. Printing	385,081	June 26	1869	477	43	1504
Wilkinson, Charles E., Matteawan, N. Y. Shuttle for sewing-machines	379,353	Mar. 13	704	192	42	1105
Wilkinson, Charles E., Matteawan, N. Y. Thread-unwinder for sewing-machines	388,328	Aug. 21	1758	469	44	925
Wilkinson, Charles E., Matteawan, N. Y. Bobbin for sewing-machine shuttles	391,672	Oct. 23	2077	562	45	423
Wilkinson, Dan, Peru, Ind. Multiple cylinder steam-engine	376,459	Jan. 17	1041	273	42	214
Wilkinson, Edward W. (See Ellis and Wilkinson.)						
Wilkinson, Eli. (See Sykes and Wilkinson.)						
Wilkinson, Ernest, U. S. Navy. Automatic fastening device	389,037	Sept. 4	337	83	44	1136
Wilkinson, Frederick, Reddish, county of Lancaster, England. Carding-engine	392,247	Nov. 6	104	27	45	614
Wilkinson, George, and J. McCourt, Acampo, Cal. Earth-scraper	380,374	Apr. 3	105	31	43	23
Wilkinson, Lewis, deceased; F. M. Steele, Chicago, Ill., administrator. Machine for tapping nuts	378,468	Feb. 28	1697	446	42	849
Wilkinson, William H., Boston, Mass. Oil-cup	394,424	Dec. 11	1024	269	45	1276

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	De'g.	Vol.	Page.
Willans, Peter W., Thames Ditton, and M. H. Robinson, Kingston-on-Thames, county of Surrey, England. High-speed engine .....	380,375	Apr. 3	106	31	43	23
Willard, Bradford, <i>et al.</i> (See Stilwell, Rickason, assignor.) .....						
Willard, Charles W., Chicago, Ill. Valve-gear for steam-hammers .....	380,155	Mar. 27	1927	514	42	1359
Willard, George, and L. T. Wilson, Pasadena, Cal. Window-screen .....	394,236	Dec. 11	742	196	45	1222
Willard Manufacturing Company. (See Dodge, Prentiss C., assignor.) .....						
Willard Manufacturing Company. (See Wetmore, Willis H., assignor.) .....						
Willafowsky, August F. L., Stamford, Conn. Electric-circuit controller .....	390,329	Oct. 2	180	49	45	39
Willcox, Alfred E., and E. Norton, Maywood, assignors to said Norton and O. W. Norton, Chicago, Ill. Machine for soldering side seams of cans .....	382,344	May 8	699	176	43	652
Willcox, Charles H., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Trimming attachment for sewing-machines .....	387,029	July 31	2519	662	44	521
Willcox, Charles H., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Cam mechanism .....	389,782	Sept. 18	1488	392	44	1370
Willcox, Charles H., assignor to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Trimming attachment for sewing-machines .....	390,109	Sept. 25	1990	530	44	1478
Willcox, Charles H., New York, N. Y., and G. H. Noble, Providence, R. I., assignors to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Straw-sewing machine )	392,087	Oct. 30	2689	732 733 734 735 736	45	558
Willcox, Charles H., New York, N. Y., and G. H. Noble, Providence, R. I., assignors to Willcox & Gibbs Sewing Machine Company, New York, N. Y. Dirt-guard for sewing-machines .....	392,088	Oct. 30	2711	737	45	563
Willcox, DeForest A. (See Chafey and Willcox.) .....						
Willcox, DeForest H. (See Parsons and Willcox.) .....						
Willcox & Gibbs Sewing Machine Company. (See Willcox, Charles H., assignor.) .....						
Willcox & Gibbs Sewing Machine Company. (See Willcox and Noble, assignors.) .....						
Willst, Judson D., assignor of two-thirds to P. G. Crisman and J. B. Kellison, Denver, Colo. Draft-equalizer .....	390,736	Oct. 9	749	196	45	156
Willet, Nathaniel S., Newark, N. J. Drying-house .....	390,737	Oct. 9	750	197	45	156
Willet, George, Chicago, Ill. Mechanical motor .....	395,099	Dec. 25	2123	549	45	1510
Willet, Robert A., South Amboy, N. J. Brick-machine .....	390,110	Sept. 25	1992	530 531	44	1478
Wiley, George H., Abington, Mass. Machine for winding bobbins for sewing-machines .....	377,542	Feb. 7	292	74	42	551
Wiley, John H. (See Daw and Wiley.) .....						
Wiley, Lewis B., Pawama, Mich. Sheaf-carrier .....	380,968	Apr. 10	1005	259	43	204
Willford, Joseph L., Minneapolis, Minn. Three-roller mill .....	393,681	Nov. 27	2219	581 582	45	1053
William, Hugh, Stockport, county of Chester, England. Gas-motor engine .....	386,949	July 31	2406	633	44	499
Williams, Albert W. (See Wilcox, John P., assignor.) .....						
Williams, Alfred, Watson, N. Y. Drip-cup for white-wash or paint brushes .....	380,005	Mar. 27	1720	460	42	1318
Williams, Allen G., East Bridgewater, assignor of one-half to H. F. Wheeler, Brockton, Mass. Machine for cutting fair-stitch loops .....	389,866	Sept. 18	1629	430	44	1397
Williams, Arthur H., Manchester, N. H. Hard finish for plastering .....	392,481	Nov. 6	452		45	680
Williams, Arthur H., Manchester, N. H. Blackboard compound .....	392,482	Nov. 6	453		45	680
Williams, Arthur H., Manchester, N. H. Mortar material .....	392,483	Nov. 6	453		45	680
Williams, Arvilla, Saratoga, Kans. Stove-pipe thimble and cap .....	386,327	July 17	1328	351	44	274
Williams, Carmi H., New York, N. Y. Machine for making timber-hangers .....	383,265	May 22	2075	515	43	939
Williams, Charles A., Warren, Ind. Hanger for window-curtains .....	388,329	Aug. 21	1759	470	44	925
Williams, Charles H., Cleveland, Ohio. Turn-buckle .....	378,534	Feb. 28	1783	470	42	868
Williams, Charles R., Newark, N. Y. Coin-controlled height-measuring machine .....	383,608	May 29	2577	683	43	1040
Williams, Charles W., Cave City, Ky. Railway-telegraph .....	377,344	Jan. 31	2335	681	42	479
Williams Company, John H. (See Williams, John H., assignor.) .....						
Williams, David. (See Walker and Williams.) .....						
Williams, David A., Denver, Colo. Dumping-wagon .....	383,930	June 5	134	39	43	1146
Williams, David P. (See Hoegel, Charles, assignor.) .....						
Williams, Edward, Lynn, Mass. Oil-distributor .....	394,319	Dec. 11	873	230	45	1248
Williams, Edwin F., Chicago, Ill. Valve .....	384,883	June 19	1566	407	43	1434
Williams, Emory N., Bonita, Kans. Check-row corn-planter .....	376,125	Jan. 10	570	152	42	120
Williams, Eva, and G. Fewless, Newport, Ky. Gas-governor .....	392,089	Oct. 30	2712	737	45	563
Williams, Fitzallan B., Chicago, Ill. Wardrobe-bedstead .....	376,126	Jan. 10	571	152 153	42	120
Williams, Fitzallan B., Chicago, Ill. Folding or wardrobe bedstead .....	376,127	Jan. 10	572	153	42	120
Williams, Fitzallan B., Chicago, Ill. Attachment for folding bedsteads .....	393,903	Dec. 4	96	27	45	1092
Williams, Francis A. (See Kierolf, Salem E., assignor.) .....						
Williams, Frank, Holyoke, Mass. Renewing strainer-plates for paper-machines .....	381,737	Apr. 24	2152	563	43	455
Williams, Frank A., Albrighton, county of Salop, England. Tube-coupling .....	381,869	Apr. 24	2360	612	43	493
Williams, Frank F., <i>et al.</i> (See Williams, John G., assignor.) .....						
Williams, Frank R., Rochester, N. Y. Apple-parer .....	381,044	Apr. 10	1124	302	43	227
Williams, Fred. (See Burnham, Arthur W., assignor.) .....						
Williams, Frederick, Alexandra, New Zealand. Automatic wool washing machine .....	380,470	Apr. 3	241	65	43	49
Williams, George. (See Murray and Williams.) .....						
Williams, George, Erie, Pa. Die for threading and cutting pipes .....	379,624	Mar. 20	1123	297	42	1193
Williams, George B., La Crosse, Wis. Triple valve for air-brakes .....	384,069	June 5	247	71	43	1169
Williams, George B., La Crosse, Wis. Fluid-pressure automatic brake mechanism .....	386,514	July 24	1750	463	44	367
Williams, George B., La Crosse, Wis. Fluid-pressure automatic-brake mechanism .....	393,872	Dec. 4	208	56	45	1111
Williams, George B., La Crosse, Wis. Air-brake .....	393,950	Dec. 4	313	85, 86	45	1133
Williams, George H., Nashville, Tenn. Rail-joint .....	376,402	Jan. 10	946	248	42	189
Williams, George H. A., Concord, N. H. Salve .....	377,592	Feb. 7	357		42	564
Williams, George W., Brooklyn, N. Y. Blind-stop .....	379,748	Mar. 20	1299	347	42	1228
Williams, Griffith W., Greensburg, Ind. Wire-stretcher .....	393,410	Nov. 27	1801	476	45	969
Williams, Hamilton W., Nashville, Tenn. Saw-swage .....	376,128	Jan. 10	574	153 154	42	121
Williams, Hamilton W., Nashville, Tenn. Device for side-dressing the teeth of saws .....	383,931	June 5	135	39	43	1147
Williams, Harry C. (See Williams, John C. and H. C.) .....						
Williams, Harry I., Decatur, Tex. Sash-fastener .....	380,237	Mar. 27	2041	545	42	1382
Williams, Henry. (See Kime and Williams.) .....						
Williams, Henry A., Taunton, Mass. Machine for cold-rolling wire .....	381,311	Apr. 17	1522	410 411	43	313
Williams, Henry A., Taunton, Mass. Machine for making hackle-pins, awls, &c. ....	290,635	Oct. 2	602	160 161	45	121
Williams, Henry A., Taunton, Mass. Pointing articles of wire .....	390,636	Oct. 2	605	161	45	122
Williams, Henry A., Taunton, Mass. Rolling-mill .....	395,024	Dec. 25	2011	519	45	1487



## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. &c.	Vol.	Page
Williams, Henry A., assignor to H. A. Williams Manufacturing Company, Taunton, Mass. Machine for reducing metal rods. (Reissue) .....	10,932	May 15	1825	477	43	880
Williams, Henry A., assignor to H. A. Williams Manufacturing Company, Taunton, Mass. Machine for reducing metal rods .....	388,938	Sept. 4	198	52	44	1110
Williams, Henry C. (See Eddy, George W., assignor.)						
Williams, Henry J., assignor to Harris Button Hole Attachment Company, New York, N. Y. Button-hole attachment for sewing-machines .....	383,423	May 22	2305	612	43	960
Williams, Herbert A., South Royalton, Vt. Suspenders .....	391,218	Oct. 16	1460	389	45	297
Williams, Herbert H., Thomaston, Me. Life-boat .....	378,993	Mar. 6	193	53	42	1003
Williams, Horace, <i>et al.</i> (See Kayser, Adolf, assignor.)						
Williams, Horace D., Cincinnati, Ohio. Doweling-machine .....	383,085	May 15	1809	472	43	877
Williams, J. Newton, New York, N. Y. Check-punching machine .....	385,741	July 10	613	159	44	127
Williams, J. Newton, New York, N. Y. Check-punching machine .....	387,705	Aug. 14	771	197	44	727
Williams, Jacob S., St. Louis, Mo. Stove or furnace .....	392,899	Nov. 13	1062	276	45	808
Williams, James H., Brooklyn, N. Y. Chain-wrench .....	377,795	Feb. 14	706	178	42	645
Williams, James M., Jr., Hamilton, Ontario, Canada. Stove-pipe damper .....	382,126	May 1	368	96	43	581
Williams, Jehu D. (See Hughes and Williams.)						
Williams, Joab F. (See Houtz, Edward, assignor.)						
Williams, John, Port Colborne, Ontario, Canada. Insect-trap .....	383,788	May 29	2866	753	43	1097
Williams, John A., Kansas City, Mo. Selling-machine .....	388,101	Aug. 21	1383	372	44	853
Williams, John C., Chicago, Ill. Valve mechanism .....	391,445	Oct. 23	1775	474	45	363
Williams, John C. and H. C., Hooper, Nebr. Device for sharpening toe-calks .....	376,697	Jan. 17	1401	369	42	282
Williams, John G., assignor to F. F. and M. M. Williams, Chicago, Ill. Car-coupling .....	380,709	Apr. 10	609	167	43	130
Williams, John H., Pleasant Hill, Ohio. Machine for setting and cooling tires .....	385,538	July 3	310	79, 80	44	63
Williams, John H., Albion, N. Y. Attachment for railway-cars .....	388,100	Aug. 21	1382	372	44	853
Williams, John H., assignor of one-half to G. R. Kelso, Boston, Mass. Machine for cleaning brick .....	388,939	Sept. 4	199	53	44	1110
Williams, John N., Newark, N. J. Car brake and starter .....	377,094	Jan. 31	1996	523	42	411
Williams, John R. (See Booth and Williams.)						
Williams, John R. (See Eastin, John A., assignor.)						
Williams, John R., Newark, N. J., assignor to J. R. Williams Company, New York, N. Y. Cigar-bunching machine .....	380,969	Apr. 10	1006	260	43	204
Williams, John R., Newark, N. J., assignor to J. R. Williams Company, New York, N. Y. Cigar-bunching machine .....	382,449	May 8	861	261	43	682
Williams, John S. (See Brown, Elmer E., assignor.)						
Williams, John W., Dexter, Mich. Cider-purifier .....	386,515	July 24	1753	463	44	368
Williams, Joseph S., <i>et al.</i> (See Griffin, Theophilus, assignor.)						
Williams, L. H., <i>et al.</i> (See Harrell, Joseph J., assignor.)						
Williams, Le Roy, Lansing, Mich., assignor to White Sewing Machine Company, Cleveland, Ohio. Shuttle for sewing-machines .....	378,855	Feb. 28	2266	602	42	959
Williams, Lewis H., Wisner, Nebr. Track or other raising and lowering device .....	393,598	Nov. 27	2090	548	45	1027
Williams, Llewellyn L. B. (See Whitaker and Williams.)						
Williams Manufacturing Company, H. A. (See Williams, Henry A., assignor.)						
Williams Manufacturing Company, H. A. (See Williams, Henry A., assignor.) (Reissue.)						
Williams, Mary M., <i>et al.</i> (See Williams, John G., assignor.)						
Williams, Meade, Mount Vernon, Ind. Harness .....	380,376	Apr. 3	109	32	43	23
Williams, Melvin D., Dexter, Minn. Bob-sleigh .....	388,926	May 15	1545	405	43	828
Williams, Milton F., St. Louis, Mo. Clutch-pulley .....	393,682	Nov. 27	2222	582	45	1053
Williams & O'Connor. (See O'Connor, James, assignor.)						
Williams, Oscar J., Lawton, Mich. Wagon-axle truss .....	378,535	Feb. 28	1784	471	42	868
Williams, Percy G., and A. W. Roovers, Brooklyn, N. Y.; said Roovers assignor to said Williams. Cash-drawer .....	381,010	June 5	248	72	43	1169
Williams, Percy G., and A. W. Roovers, Brooklyn, N. Y.; said Roovers assignor to said Williams. Coin-operated induction-coil. (Reissue) .....	10,949	July 24	2150	564	44	443
Williams, Percy G., and A. W. Roovers, Brooklyn, N. Y.; said Roovers assignor to said Williams. Coin-operated induction-coil .....	386,860	July 31	2276	590	44	474
Williams, Robert E., <i>et al.</i> (See Eastin, John A., assignor.)						
Williams, Robert H., Newton, Iowa. Crank and lever mechanism .....	380,238	Mar. 27	2041	545	42	1382
Williams, Rupert G., Albany, N. Y. New coloring-matter obtained by the action of tetra-azo-diamido benzole on phenols .....	384,342	June 12	755	.....	43	1272
Williams, Rupert G., Albany, N. Y. Action of salts of tetraze-ditoly or diphenyl on di-hydroxides of toluene or their sulpho-acids .....	394,425	Dec. 11	1026	.....	45	1276
Williams, Thomas, Jr., 45 Myddleton Square, county of Middlesex, England. Meat-cutter .....	388,940	Sept. 4	201	53	44	1111
Williams, Thomas C., Beloit, Kans. Corn-cutter .....	389,783	Sept. 18	1490	392	44	1371
Williams, Thomas D., Allegheny City, and J. S. Lucock, Bellevue, assignors of three-fifths to J. W. Clark, G. M. Eitemiller, and G. Morris, Allegheny County, Pa. Automatic electric block-signal system .....	384,810	June 19	1444	378	43	1413
Williams, Thomas D., Allegheny City, and J. S. Lucock, Bellevue, assignors of three-fifths to J. W. Clark, G. M. Eitemiller, and G. Morris, Allegheny County, Pa. Apparatus for operating automatic block-signals .....	384,811	June 19	1449	379	43	1414
Williams, Thomas H., London, county of Middlesex, England. Valve for steam-pumps .....	388,941	Sept. 4	202	54	44	1111
Williams, Thornton. (See Burgess, Samuel, assignor.)						
Williams, Walter D., assignor of one-half to A. J. Fullmer, Camden, N. J. Dental hand-piece .....	382,672	May 8	1206	313	43	750
Williams, Walter D., assignor of one-half to A. J. Fullmer, Camden, N. J. Dental hand-piece .....	382,673	May 8	1207	313	43	751
Williams, White & Co. (See Wilder, Charles O., assignor.)						
Williams, William, Huntingdon, Pa. Metallic socket-connection for stone coping .....	380,710	Apr. 10	610	167	43	131
Williams, William C. (See Jones, David, assignor.)						
Williams, William C., Detroit, Mich. Paint-can press .....	379,190	Mar. 6	463	131	42	1055
Williams, William H. (See Hill and Rider, assignors.)						
Williams, William H., Huntington, W. Va. Saw swage and sharpener .....	385,290	June 26	2186	539	43	1568
Williams, William L., St. Louis, Mo. Automatic retention-valve for water-closets .....	392,900	Nov. 13	1064	276	45	808
Williams, William P., assignor of two-thirds to W. P. Johnson and A. Crandall, Chicago, Ill. Street or station indicator for cars .....	381,458	June 12	959	249	43	1311
Williamson, A. McIntosh, Philadelphia, Pa. Wheel .....	387,549	Aug. 7	532	138	44	675
Williamson, Benjamin L., Little Rock, Ark. Coupling for shafts, pulleys, &c .....	384,812	June 19	1453	380	43	1414
Williamson, Charles R., Topeka, Kans. Toilet-paper cutter .....	386,570	July 24	1833	481	44	382
Williamson, Daniel, assignor of one-half to J. Slaymaker, Sunbury, Pa. Ice-cutter .....	395,100	Dec. 25	2126	549	45	1510

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Draw.	Vol.	Page.
Williamson, David, New York, N. Y. Rotary engine.	375,788	Jan. 3	91	27	42	22
Williamson, George B., assignor of one-half to E. Grisez, Braidwood, Ill. Combined thresh-old and weather strip.	388,330	Aug. 21	1760	470	44	926
Williamson, George H. (See Williamson, William B. and G. H.)						
Williamson, Henry A., Philadelphia, Pa. Sash-holder.	391,104	Oct. 16	1307	348	45	207
Williamson, James F. (See Grime, John, assignor.)						
Williamson, James F. (See Kilgore, Frederick O., assignor.)						
Williamson, John R., Seattle, Wash. Ter., and W. W. Hickies, Oakland, Cal. Apparatus for examining ores.	380,842	Apr. 10	807	219	43	167
Williamson, Samuel S. (See Smith and Williamson.)						
Williamson, Samuel S., assignor to T. P. Taylor, Bridgeport, Conn. Bustle.	378,187	Feb. 21	1265	334	42	760
Williamson, Samuel S., assignor to T. P. Taylor, Bridgeport, Conn. Garment-stay.	394,746	Dec. 18	1546	404	45	1389
Williamson, Silas, Sr., Amanda, Ohio. Combined fence post and brace.	380,270	Mar. 27	2081	557	42	1391
Williamson, William, Pendleton, near Manchester, county of Lancaster, England. Loom-dobby.	386,731	July 24	2047	539	44	423
Williamson, William B. and G. H., Worcester, England. Can-opener.	378,349	Feb. 21	1515	396	42	807
Williford, Andrew J., Nokomis, Ill. Reading-desk.	389,038	Sept. 4	332	88	44	1136
Willigerod, Edward, and L. Neresheimer, New York, N. Y. Feed-bag.	376,570	Jan. 17	1190	315	42	243
Willingham, John T., Chattanooga, Tenn. Split pulley.	395,256	Dec. 25	2337	611	45	1556
Willingham Lumber Company. (See Fee, William R., assignor.)						
Willingham, William A., Chattanooga, Tenn. Split pulley.	383,789	May 29	2866	753	41	1097
Willis, Ambrose, assignor of one-half to T. D. Robinson, Troy, N. Y. Fire-cracker holder.	385,032	June 26	1791	462	43	1489
Willis, Charles A. (See Schenck, Unico H. W., assignor.)						
Willis, James, Rosendale, Bonnemouth, county of Hants, England. Manufacture of gits for umbrella-frames.	380,377	Apr. 3	110	32	43	24
Willis, James B., Portsmouth, county of Hants, England. Telegraphic signaling apparatus.	381,738	Apr. 24	2154	563	43	455
Willis, Philip S., Toledo, Ohio. Grain-separator.	393,411	Nov. 27	1893	476	45	969
Williscraft, William H., Juniper, Ariz. Ter. Horse-power machine.	389,623	Sept. 18	1251	327	44	1323
Wills, Frank J., Winchester, Mass. Air-pump.	386,516	July 24	1755	463	41	368
Wills, Harry A., Chicago, Ill. Cutting horseshoe-nails.	382,997	May 15	1546	405	43	828
Wills, Harry A., Chicago, Ill. Machine for making horseshoe-nails.	382,998	May 15	1549	406	43	829
Wills, James A., Philadelphia, Pa. Urinal.	382,399	May 8	784	199	43	668
Wills, Robert, Chicago, Ill. Stock-car.	390,935	Oct. 9	1033	272	45	209
Willsea, Theodore, Rochester, N. Y. Harness-horse.	384,201	June 12	692	184	43	1962
Willson, Freeman R., Sr., Columbus, Ohio. Whiffletree.	376,462	Jan. 17	1046	274	42	245
Willson, Henry, Chicago, Ill. Box for holding gummed letters, &c.	378,911	Mar. 6	70	21	42	980
Willson, Walter V. H., Troy, N. Y. Sand-box for street-cars.	382,247	May 1	539	137	43	612
Wilmart, Mark, <i>et al.</i> (See Young, Thomas J., assignor.)						
Wilmot, F. Ashley. (See Wilmot, Samuel R. and E. A.)						
Wilmot, Samuel R. and E. A., Bridgeport, Conn. Device for catching flies.	382,500	May 8	1072	274	41	724
Wilmouth, Corydon H., Terre Haute, Ind. Ratchet-drill stock.	378,639	Feb. 28	1930	513	42	897
Wilmouth, James H., and B. McNairy, Aberdeen, Miss. Churn.	377,857	Jan. 3	171	48	42	38
Wilson, Albert M., Greenleaf, Kans. Washing-machine.	389,039	Sept. 4	339	89	44	1136
Wilson, Alexander, Sheffield, county of York, England. Apparatus for manufacturing compound plates of iron and steel.	380,970	Apr. 10	1010	262	43	205
Wilson, Alexander, Sheffield, county of York, England. Apparatus for the manufacture of armor-plates.	381,453	Apr. 17	1741	465	43	355
Wilson, Alfred D. (See Taylor, John M., assignor.)						
Wilson, Arthur M., White Pigeon, Mich. Road-cart.	384,489	June 12	961	249	43	1312
Wilson, Benjamin J., Atlanta, Ga. Baling-press.	376,461	Jan. 17	1045	274	42	245
Wilson, Benjamin J., and A. A. Wood, Atlanta, Ga.; said Wood assignor to said Wilson. Brick-machine.	376,460	Jan. 17	1042	273	42	244
Wilson, Brockett O., Dayton, Ohio. Slove-truck.	388,516	Aug. 28	2025	545	41	981
Wilson Brothers. (See Frantzen, Paul, assignor.)						
Wilson Car Warming and Ventilating Company. (See Wilson and Noble, assignors.)						
Wilson, Charles, and J. S. Foster, Rockport, Me. Ellipsograph.	386,610	July 21	1892	500	41	395
Wilson, Charles G., Horace, Kans. Fruit-gatherer.	391,829	Oct. 30	2315	628	45	484
Wilson, Columbus E., Dora, Ind. Fence.	382,629	May 8	1139	294	43	737
Wilson, Curtis, assignor of one-half to H. Goossen, Cordelia, Cal. Gate.	378,561	Feb. 28	1830	482	42	876
Wilson, David, Grays, county of Essex, England. Manufacture of tubular railway-ties.	394,426	Dec. 11	1026	269	45	1276
Wilson, David Y., Gum Tree, assignor of one-half to R. L. McClellan, S. P. Rutherford, Cochranville, J. Essig and S. Cronleigh, Parkersburg, Pa. Railway cross-tie.	385,492	July 3	240	62	44	48
Wilson, Edgar, and J. W. Binder, Philadelphia, Pa.; said Binder assignor to said Wilson. Ironing machine.	378,994	Mar. 6	194	53, 54	42	1003
Wilson, Edgar W., Denver, Colo. Cable railway.	384,550	June 12	1063	277	43	1330
Wilson, Edward A., Deckertown, N. J. Snap-hook.	381,739	Apr. 24	2155	564	43	455
Wilson, F. Cortez, Chicago, Ill. Apparatus for leaching coffee.	394,046	Dec. 4	451	122	45	1158
Wilson, Fitzland L., West Bay City, Mich. Machine for cutting veneer from logs.	394,898	Dec. 18	1809	469	45	1440
Wilson, Francis M., Boston, Mass. Display-stand.	393,873	Dec. 4	211	57	45	1111
Wilson, George H. (See Nowell and Wilson.)						
Wilson, George R., Washington, D. C. Steam-boiler.	379,749	Mar. 20	1300	347	42	1228
Wilson, George T., assignor of one-half to J. D. Hough, Lowell, N. Y. Whiffletree-hook.	390,738	Oct. 9	753	197	45	156
Wilson, Grove H. (See Pullman, Herbert S., assignor.)						
Wilson, Henry M. (See Morrill and Wilson.)						
Wilson, Hiram G., and J. Noble, St. Louis, Mo., assignors to Wilson Car Warming and Ventilating Company, East St. Louis, Ill. Car-heating furnace.	376,463	Jan. 17	1048	274	42	245
Wilson, Homer T., Harrodsburg, assignor to Merchants Roll Paper Printer and Cutter Company, Lexington, Ky. Paper-reel.	388,236	Aug. 21	1605	429	44	896
Wilson, James, trustee. (See Smith, William, assignor.)						
Wilson, James G., New York, N. Y. Window-frame.	390,423	Oct. 2	314	83	45	67
Wilson, James G., New York, N. Y. Rolling shutter.	392,656	Nov. 13	708	178	45	736
Wilson, James P., Newark, N. J. Carburetor.	383,204	May 22	1974	519	43	920
Wilson, John, New York, N. Y., assignor to American Acetic Acid Company, Jersey City, N. J. Apparatus for distilling wood.	375,902	Jan. 3	240	65	42	51
Wilson, John, New York, N. Y., assignor to American Acetic Acid Company, Jersey City, N. J. Clamp for wood-sawing machines.	375,909	Jan. 3	241	66	42	51
Wilson, John B., New York, N. Y. Veneer.	389,624	Sept. 18	1252	328	44	1323
Wilson, John C. (See Lefeber, Henry, assignor.)						
Wilson, John C., Boston, Mass. Message and time recorder.	392,838	Nov. 13	984	252	45	791
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Municipal telegraph apparatus.	380,778	Apr. 10	714	197	43	151

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Municipal telegraph	380,779	Apr. 10	718	197	43	151
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Telephone signaling-circuit	380,780	Apr. 10	721	197	43	152
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Police signal apparatus	386,175	July 17	1236	330	44	257
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Police alarm system	392,248	Nov. 6	105	27	45	614
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Signal-transmitter	395,101	Dec. 25	2127	{ 549 550 }	{ 45 45 }	{ 1510 1510 }
Wilson, John C., Boston, Mass., assignor to Municipal Signal Company, Portsmouth, N. H. Signal-transmitter	395,102	Dec. 25	2128	550	45	1511
Wilson, John D., Jennings's Station, Mo. Coasting-sled	385,652	July 3	480	124	44	93
Wilson, John R., Greensburg, Pa. Coal-wagon	388,801	Aug. 28	2437	658	44	1061
Wilson, John T., assignor of one-half to Pittsburgh Forge and Iron Company, Pittsburg, Pa. Die for making draw-bars	381,894	Apr. 24	2401	624	43	502
Wilson, John T., assignor of one-half to Pittsburgh Forge and Iron Company, Pittsburg, Pa. Making draw-bars	381,895	Apr. 24	2402	624	43	502
Wilson, John T., assignor of one-half to Pittsburgh Forge and Iron Company, Pittsburg, Pa. Car-coupling	390,195	Sept. 25	2116	564	44	1504
Wilson, John T., Pittsburg, Pa., assignor of three-fourths to Pittsburgh Forge and Iron Company. Car-coupling	389,181	Sept. 4	582	147	44	1180
Wilson, John T., Pittsburg, Pa., assignor of one-half to Pittsburgh Forge and Iron Company. Making draw-bars	389,182	Sept. 4	583	148	44	1180
Wilson, Josephine S., San José, Cal. Dress-chart	375,972	Jan. 3	338	91	42	69
Wilson, Lewis T. (See Willard and Wilson.)						
Wilson, Malcolm, assignor of one-half to D. Smith, London, Ontario, Canada. Double-furrow plow	393,135	Nov. 29	1397	365	45	880
Wilson & McCallay Tobacco Company. (See Drayer and Boykin, assignors.)						
Wilson, Michael H., Nutley, N. J., and W. D. Thomas, Brooklyn, N. Y. Metal mat	378,912	Mar. 6	71	21	42	980
Wilson, Michael H., Nutley, N. J., and W. D. Thomas, Brooklyn, N. Y. Grated structure	380,069	Mar. 27	1807	483	42	1336
Wilson, Oscar B., Collinsville, Ill. Hydrant-valve	381,682	Apr. 24	2045	535	43	434
Wilson, Peter M., and C. M. Hawkins, Raleigh, N. C. Feather product	393,951	Dec. 4	316	86	45	1133
Wilson, Riley P., Cleveland, Ohio, assignor of one-half to F. J. Wall, New York, N. Y. Refining iron with air	384,813	June 19	1455		43	1415
Wilson, Robert, Grubville, Mo. Car-coupling	384,732	June 19	1334	348	43	1390
Wilson, Robert H., Timber Lake, Colo. Chinch-trap	391,930	Oct. 30	2464	665	45	514
Wilson, Robert J., Pittsburg, Pa. Refining oil	379,090	Mar. 6	340	97	42	1029
Wilson, Samuel, Brooklyn, N. Y. Machine for shelling peas	394,630	Dec. 18	1356	354	45	1351
Wilson, Samuel R., Adelaide, South Australia. Changeable gage-track for cars	381,312	Apr. 17	1523	411	43	313
Wilson, Thomas, North Tarrytown, N. Y. Protector for vessels against rats	376,839	Jan. 24	1637	428	42	334
Wilson, V. G. (See Pfeil, John, assignor.)						
Wilson, William, Earlville, Ill. Apparatus for heating and lighting railway-cars	393,599	Nov. 27	2092	548	45	1027
Wilson, William A. (See Brettell, George E., assignor.)						
Wilson, William D. (See Wilson and Walton, assignors.)						
Wilson, William H., Camden, N. J. Tool for grooving the mouths of bottles	382,929	May 15	1551	406	43	829
Wilson, William L., and E. Walton, assignors of one-third to W. D. Wilson, Chariton, Iowa. Wire-reel	388,383	Aug. 21	1849	491	44	941
Wilt, Willard, Eureka, Cal. Combined chair, fish-plate, and rail-coupler	379,432	Mar. 13	826	223	42	1129
Wiman, Ernst A., Stockholm, Sweden. Heating-stove	382,930	May 15	1552	406	43	829
Wimmer, Louis, assignor of one-half to E. D. Smith, Elizabeth, N. J. Ore crusher and pulverizer	380,006	Mar. 27	1721	461	42	1319
Wimpee, George W., Summerville, Ga. Motor	386,950	July 31	2408	633	44	500
Winans, George H., et al. (See Barker, Jeduthen P., assignor.)						
Winans, Herman W., et al. (See D'Lanoy, Alfred, assignor.)						
Winch, Charles F., New York, N. Y. Coin-operated machine	387,130	July 31	2680	702	44	549
Winchell, Addison H. (See Lennon, Sayres N., assignor.)						
Winchell, Alvin T., Albion, Mich. Wind-engine	381,313	Apr. 17	1525	411	43	313
Winchell, Edward H. (See Sanderson and Winchell.)						
Winchell, James F., Springfield, Ohio. Crushing and grinding mill	381,515	Apr. 17	1836	485	43	374
Winchester, Edward H. (See Matchette, James S., assignor.)						
Winchester, Edward S., Boston, Mass. Latch	394,427	Dec. 11	1028	270	45	1276
Winchester, Edwin S., Boston, Mass. Lock	384,108	June 5	385	108	43	1194
Winchester Repeating Arms Company. (See Bennett, Thomas G., assignor.)						
Winchester Repeating Arms Company. (See Browning, John M. and M. S., assignors.)						
Winchester Repeating Arms Company. (See Mason, William, assignor.)						
Winchester Repeating Arms Company. (See Wetmore, William W., assignor.)						
Winder, Alfred, Washington, D. C. Blasting-plug	378,820	Feb. 28	2206	588	42	949
Winder, John E., Cincinnati, Ohio. Boiler-feeder	385,893	July 10	845	223	41	173
Windate, Mary L., Chicago, Ill. Egg-testing packet	389,625	Sept. 18	1253	328	44	1324
Windle, John E., Worcester, assignor to N. J. Smith, Springfield, Mass. Bit-gage	390,936	Oct. 9	1035	273	45	210
Windus, Werner, et al. (See Thomas, Conrad, assignor.)						
Wineland, Frank B., Breckenridge, Colo. Car-coupling	380,070	Mar. 27	1808	483	42	1336
Winemann, Gustav A. (See Zech, Otto, assignor.)						
Winey, Thomas G. (See Goumley, Winey, and Hertzler.)						
Winfield, Benjamin F. (See Stevens, Lewis, assignor.)						
Winfield, William C., assignor of two-thirds to R. A. Cobb and O. R. Grimmesey, Warren, Ohio. Tube-bending device	379,750	Mar. 20	1301	347	42	1229
Wing, Hiram J., Brooklyn, assignor to himself and T. G. Palmer, Schultsville, and V. Kolb, New York, N. Y. Checkrein attachment for harness	385,082	June 26	1870	478	43	1505
Wing, Leander J., Lexington, Mass. Supporting-crane for electric lamps	378,913	Mar. 6	73	21	42	981
Winger, John, and J. W. Barger, Harrison, Ark. Drag-saw	392,392	Nov. 6	322	80	45	655
Winger, Oswald E. (See Storer and Winger.)						
Wingert, John D., Fayetteville, Pa. Chicken-brooder	389,428	Sept. 11	952	249	44	1262
Winget, Farmery R. (See Winget, Marion A., assignor.)						
Winget, Marion A., assignor to F. R. Winget, Columbus, Ohio. Cigar-bunching machine	388,802	Aug. 28	2438	658	44	1061
Winkley, Frank D., Madison, Wis. Windmill	391,571	Oct. 23	1941	{ 524 524 }	{ 45 45 }	{ 400 400 }
Winn, Ada L., Hillsborough, Ark. Button-fastener	376,497	Jan. 17	1097	288	42	225
Winn, Adelbert H., Nashville, Mich. Dental drill	381,196	Apr. 17	1361	364	43	281
Winn, Frank, Dallas, Tex. Direct-acting steam-engine	394,047	Dec. 4	455	{ 123 123 }	{ 45 45 }	{ 1158 1158 }
Winnek, Frederick G., assignor of two-thirds to J. H. Atwood and T. P. Fenlon, Jr., Leavenworth, Kans. Tongue-support	378,070	Feb. 14	1085	285	42	719

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Winnek, Frederick G., assignor of one-half to J. H. Atwood and T. P. Fenlon, Jr., Leavenworth, Kans. Reach-slide for wagons	378,671	Feb. 14	1086	285	42	719
Winnek, Frederick G., assignor of one-half to J. Hunter, Leavenworth, Kans. Safety hair braid pin	387,611	Aug. 7	636	165	44	694
Winona Harvester Works. (See Search, Caspary, F., assignor.)						
Winona Wagon Company et al. (See Hennessy, James F., assignor.)						
Winslow, John H., et al. (See Lancaster, Charles P., assignor.)						
Winslow, W. Henry, Boston, Mass. Stain or paint	383,086	May 15	1810	.....	43	877
Winsor, Chancy A., Galesburg, Ill. Water-heater	387,196	July 31	2774	{ 725 726 }	44	565
Winsor, Spencer T., Duxbury, Mass. Seine	379,751	Mar. 20	1302	{ 347 348 }	42	1229
Winston, Alexander, Fayette, Iowa. Corn-planter	376,422	Jan. 10	924	257	42	196
Winston, John L., et al. (See Teipel, Benjamin, assignor.)						
Wirth, Caroline H., assignor of one-half to S. C. Johnson, Philadelphia, Pa. Boot or shoe	378,034	Feb. 14	1038	271	42	710
Winter, William H., and H. Dufley, Cortland, N. Y. Vehicle-spring	382,630	May 8	1141	294	43	738
Winterfield, Henry L., assignor of one-half to R. Kerr, Danbury, Conn. Hat-rack for hat-manufacturers	376,993	Jan. 24	1759	463	42	358
Wire Fabric Company. (See Rumsey, Charles B., assignor.)						
Wire Goods Company. (See Cement, William O., assignor.)						
Wire Goods Company. (See Tyler, Darius S., assignor.)						
Wire Staple Company. (See Brown, William J., Jr., assignor.)						
Wirsching, Aloys, Brooklyn, N. Y. Electric time-recorder	380,626	Sept. 18	1254	{ 328 329 }	44	1324
Wirsching, Aloys, Brooklyn, N. Y. Screw-cutting die	380,627	Sept. 18	1256	329	44	1324
Wirth, John D., Hoosick Falls, N. Y. Self-lubricating loose pulley	380,007	Mar. 27	1723	461	42	1319
Wise, Andrew J., assignor of five-sixths to P. D. Logan, R. R. and E. J. Wise, Cottonwood, Cal. Thrashing-machine	379,191	Mar. 6	464	131	42	1055
Wise Brothers. (See Crain, William O., assignor.)						
Wise, Charles L., New York, N. Y. Receptacle for keeping press-copying pads moist	381,454	Apr. 17	1742	466	43	355
Wise, Daniel W., Chicago, Ill. Window-shade fixture	382,784	May 15	1360	357	43	790
Wise, David, Ashland, Ohio. Filter	386,909	July 31	2354	618	44	489
Wise, Ebenezer J., et al. (See Wise, Andrew J., assignor.)						
Wise, Edwin E. (See Beach, George A., assignor.)						
Wise, John W., Adrian, Mich. Pen	379,433	Mar. 13	896	223	42	1129
Wise, Morgan R. (See Brown, John H., assignor.)						
Wise, Reuben R., et al. (See Wise, Andrew J., assignor.)						
Wiseley, John C. (See Patton and Wiseley.)						
Wiselogle, Christian D. (See Gale and Wiselogle.)						
Wiseman, Albino, Rochester, N. Y. Repairer's last	379,434	Mar. 13	897	223	42	1130
Wiseman, Arthur G., St. Louis, Mo. Electric clock-synchronizer	387,276	Aug. 7	109	29	44	594
Wiseman, Arthur G., Webster Groves, Mo. Clock-synchronizer	391,446	Oct. 23	1777	475	45	364
Wiser, Clinton B., assignor to himself and R. B. Crouch, Chicago, Ill. Apparatus for making brine	380,378	Apr. 3	111	32	43	24
Wissler, Aaron, Brunnersville, Pa. Conveyor	377,821	Feb. 14	737	{ 186 187 }	42	650
Wistrand, Peter E., Kewanee, Ill. Pump	391,871	Oct. 30	2374	644	45	496
Wiswall, Wellington B. (See Stewart and Wiswall.)						
Witherington, Absalom M., Rutherford Depot, Tenn. Horse-detacher	382,201	May 1	471	121	43	600
Withers, Walter S., Atlanta, Ga. Molding apparatus	393,804	Dec. 4	97	27	45	1092
Withington, Charles B., Janesville, Wis. Grain-binder	378,225	Feb. 21	1318	{ 350 351 352 }	42	771
Withington, Charles B., Janesville, Wis. Grain-binder	378,226	Feb. 21	1330	{ 352 353 }	42	773
Withington, Charles B., Janesville, Wis. Grain-binder	378,227	Feb. 21	1334	{ 353 354 }	42	773
Withington, James, Chambersburg, assignor to Trenton Iron Company, Trenton, N. J. Reducing and finishing wire	377,000	Jan. 24	1847	.....	42	376
Withington, James, Chambersburg, assignor to Trenton Iron Company, Trenton, N. J. Delivering and stretching mechanism for machines for the manufacture of wire rope	383,087	May 15	1811	{ 472 473 }	43	877
Withington, James, Chambersburg, assignor to Trenton Iron Company, Trenton, N. J. Vertical wire-rope-closing machine	383,088	May 15	1812	{ 474 }	43	878
Witmer, Tobias, Jr. (See Gilbert, Leander G., assignor.)						
Witmer, Tobias, Jr. (See Gilbert and Long, assignors.)						
Witt, Julius, Chicago, Ill. Mechanical movement	382,785	May 15	1361	358	43	790
Witt, Otto N., Westend, near Berlin, assignor to Badische Anilin and Soda Fabrik, Mannheim, Germany. Manufacture of purple-black azo dye-stuff	381,045	Apr. 10	1130	.....	43	228
Witt, Otto N., Westend, near Berlin, assignor to Badische Anilin and Soda Fabrik, Mannheim, Germany. Purple azo dye-stuff	381,046	Apr. 10	1131	.....	43	228
Wittel, Martin A. (See Myers and Wittel.)						
Witter, Elijah M. (See Witter, Ezra E., assignor.)						
Witter, Ezra E., Milford Centre, Ohio. Power fence-making machine	394,631	Dec. 18	1357	{ 355 356 }	45	1351
Witter, Ezra E., assignor of one-half to E. M. Witter, Milford Centre, Ohio. Machine for making picket fences	389,784	Sept. 18	1491	{ 393 394 }	44	1371
Withthoeft, William, Jr., assignor of one-third to L. F. Boeckstiegel, St. Louis, Mo. Automatic stationary water-filter	383,089	May 15	1816	475	43	878
Wittig, Albert, New York, N. Y. Button-machine	382,786	May 15	1363	358	43	790
Wittkowsky, Carl, Charlottenburg, near Berlin, Germany. Manufacturing wooden relief-plates	379,301	Mar. 13	637	173	42	1092
Witzel, Hermann, Neustadt, Prussia, Germany. Shoe	383,090	May 15	1818	{ 475 476 }	43	879
Wixon, A. A., et al. (See Kellogg, Alfred J., assignor.)						
Wixon, Justin D. (See Shaw and Wixon.)						
Woelher, Amos, Davenport, Iowa. Haul-boring machine	387,550	Aug. 7	533	139	44	675
Woelher, Amos, Cincinnati, Ohio. Vehicle-top	394,804	Dec. 18	1651	432	45	1411
Woelher, Amos, and J. Lammers, assignors of one-third to H. Lammert, Cincinnati, Ohio. Window-frame	379,920	Mar. 20	1585	417	42	1282
Woelfly, Simon J., Lebanon, Pa. Harness-ferret	390,542	Oct. 2	459	127	45	98
Woertz, Ernest G. W., New York, N. Y. Conveyor for brewers' grains	381,455	Apr. 17	1744	466	43	355
Wojan, Hermann, Brooklyn, N. Y. Pipe-expander	377,507	Feb. 7	246	59	42	542
Wolcott, Anson, Chicago, Ill. Heating drum or radiator	394,899	Dec. 18	1812	469	45	1440
Wolcott, Clayton, Hartford, Conn. Sash-fastener	383,549	May 29	2513	663	43	1025

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. G.	Vol.	Page.
Wolcott, Henry G., Matteawan, N. Y. Pouncing or finishing of felt or other like articles.	394,747	Dec. 18	1547	{ 404 405 329 330 }	{ 45 44 }	1390
Wolstein, Solomon, New York, N. Y. Rack for exhibiting garments.	389,628	Sept. 18	1257	{ 329 418 281 282 }	{ 44 42 42 }	1324
Wolf, Bertrand B. (See Reed, Jacob P., assignor.)						
Wolf, Daniel. (See Hillebrand, Louis, assignor.)						
Wolf, Francis M., Springfield, Mo. Velocipede.	391,499	Oct. 23	1848	495	45	379
Wolf, Frederick W., Chicago, Ill. Ice or refrigerating machine.	385,157	June 26	1977	506	43	1527
Wolf, Josef, assignor to Universal Lock-Hinge Company, Hoboken, N. J. Lock-hinge.	379,921	Mar. 20	1586	418	42	1282
Wolfe, Gurdon G., assignor to Fuller & Warren Company, Troy, N. Y. Hot-air furnace.	378,061	Feb. 14	1073	{ 281 282 }	{ 42 42 }	717
Wolfe, Harvey R., assignor of one-half to Brennan & Co. Southwestern Agricultural Works, Louisville, Ky. Baling-press.	381,975	May 1	130	28	43	536
Wolfe, Israel, Goshen, Ind. Rail-chair.	378,856	Feb. 28	2267	603	42	960
Wolfe, J. Gregory, Melville, Iowa. Automatic grain meter and register.	377,843	Feb. 14	768	196	42	656
Wolfeudale, Charles W., et al. (See Piper, William M., assignor.)						
Wolffenden, Shore & Co. (See Goodyear, Robert B., assignor.)						
Wolff, César, Frankfort-on-the-Main, Germany. Machine for reducing feathers.	388,517	Aug. 28	2026	545	44	983
Wolff & Coleman, I. & M. (See Coleman, William H., assignor.)						
Wolff, Hans, Zurich, Switzerland. Production of new azo colors.	389,127	Sept. 4	490		44	1164
Wolff, Justus, Union, N. J., assignor of three-fourths to S. B. Folkers, Brooklyn, N. Y. Composition for making cement.	383,932	June 5	136		43	1147
Wolff Manufacturing Company, L. (See Rieth, Peter, assignor.)						
Wolff, Samuel F., Morris, Minn. Choke-up alarm.	393,412	Nov. 27	1863	{ 476 477 }	{ 45 45 }	969
Woltinger, Joseph, Dundas, Wis. Shoe.	393,284	Nov. 20	1621	425	45	925
Woltinger, William A., Milton, Pa. Farm-gate.	391,673	Oct. 23	2078	562	45	428
Wolley, John. (See Colvin and Wolley.)						
Wolson, Samuel, Zaslunick, Russia. Means for utilizing exhaust.	384,733	June 19	1325	343	43	1391
Wolfe, Clarence A., et al. (See Lorenz, William A., assignor.)						
Wolfe, Clarence A., et al. (See Lorenz and Honiss, assignors.)						
Wollensak, John F. (See Gill and Segerdahl, assignors.)						
Wollensak, John F., Chicago, Ill. Lever latch and handle.	381,740	Apr. 24	2156	564	43	455
Wollensak, John F., Chicago, Ill. Transom-lifter.	381,741	Apr. 24	2157	565	43	455
Wollensak, John F., Chicago, Ill. Transom-lifter.	381,742	Apr. 24	2159	565	43	455
Wollensak, John F., Chicago, Ill. Transom-lifter.	381,743	Apr. 24	2161	565	43	456
Wollensak, John F., Chicago, Ill. Transom-lifter.	381,744	Apr. 24	2162	565	43	456
Wollensak, John F., Chicago, Ill. Transom-lifter.	384,182	June 5	505	138	43	1219
Wollin, William F., Lancaster, and E. H. Werline, Williamsport, assignors of one-third to H. B. Cochran, Lancaster, Pa. Incandescent-electric-lamp socket.	393,733	Nov. 27	2287	600	45	1065
Wolner, Eugen, Liverpool, county of Lancaster, England. Weighing-machine.	384,659	June 19	1222	{ 322 323 324 }	{ 43 43 }	1370
Wolstencroft, James, et al. (See Soley, William H., assignor.)						
Wolters, Charles, et al. (See Cramer, Francis J., assignor.)						
Wolters, William. (See Ruckle and Wolters.)						
Wolz, George, assignor of one-half to J. Mindemann, Detroit, Mich. Table.	383,333	May 22	2163	572	43	955
Wonnack, George E., Llano, Tex. Corn or cotton planter.	391,998	Oct. 30	2561	695	45	532
Womersley, William. (See Sedgwick, Womersley, and Brown.)						
Wood, Albert A. (See Wilson and Wood.)						
Wood, Alvinus B. (See Wood, Joseph W. and A. B.)						
Wood, Amos L., trustee. (See Haynes, Cornelius E., assignor.)						
Wood, Andrew, Washington, Ky. Nail-tongs.	376,220	Jan. 10	705	187	42	145
Wood, Aurin, Worcester, assignor to Sawyer Spindle Company, Boston, Mass. Spindle-support for spinning-machines. (Reissuo).	10,897	Jan. 31	2392	691	42	486
Wood, Aurin, Worcester, assignor to Sawyer Spindle Company, Boston, Mass. Support for spinning spindles.	383,091	May 15	1819	476	43	879
Wood, Aurin, Worcester, assignor to G. Draper & Sons, Hopedale, Mass. Support for spinning-spindles.	392,976	Nov. 13	1175	365	45	829
Wood, Charles, Franklin, Ill. Water elevator and carrier.	393,285	Nov. 20	1622	426	45	925
Wood, Charles T., Lynn, assignor to Bay State Lasting Machine Company, Boston, Mass. Lasting and sole-laying machine.	391,001	Oct. 9	1137	{ 301 302 }	{ 45 45 }	228
Wood, Charles T., Lynn, assignor to Bay State Lasting Machine Company, Boston, Mass. Implement for fitting boot or shoe uppers.	391,002	Oct. 9	1145	302	45	229
Wood, Daniel. (See Cooper, Gage M., assignor.)						
Wood, Edward H., et al. (See Gale, Charles E., assignor.)						
Wood, Edwin A., Utica, N. Y. Combined cock and siphon for steam pressure gages.	379,088	Mar. 6	260	73	42	1015
Wood, Edwin L., Minneapolis, Minn. Packing antiseptic textile surgical dressings.	393,874	Dec. 4	212	57	45	1112
Wood, Frank B., New York, N. Y., assignor to New Haven Clock Company, New Haven, Conn. Electric bell.	381,314	Apr. 17	1526	412	43	314
Wood, Fred W., and J. Fowler, Los Angeles, Cal. Construction of railways.	386,732	July 24	2049	540	44	423
Wood, Fremant E., Alpine, Mich. Fence.	381,047	Apr. 10	1131	382	43	228
Wood, Fremont E., Yucca, Ariz. Ter. Combined needle and twine-cutter.	391,500	Oct. 23	1850	495	45	380
Wood, George, Crawford, Colo. Cough-mixture.	382,850	May 15	1443		43	807
Wood, George E., assignor of one-half to F. I. Pruden, Del Norte, Colo. Washing-machine.	375,858	Jan. 3	172	48	42	39
Wood, George W., Granville, N. Y., and J. W. Carver, Pawlet, Vt.; said Carver assignor to said Wood. Gun-sight.	388,166	Aug. 21	1509	402	44	875
Wood, Henry. (See Bishop, John J., assignor.)						
Wood, J. V. (See Ball, Cortland, assignor.)						
Wood, James, Rochester, N. Y. Spoon-hook.	394,632	Dec. 18	1362	357	45	1352
Wood, James, Rochester, N. Y. Fishing-spoon.	395,103	Dec. 25	2129	550	45	1511
Wood, James J., Brooklyn, N. Y. Switch or cut-out for electric circuits.	383,933	June 5	136	39, 40	43	1147
Wood, James J., Brooklyn, N. Y. Incandescent-lamp socket and switch.	384,815	June 19	1456	381	43	1415
Wood, James J., Brooklyn, N. Y. Commutator for dynamo-electric machines.	384,816	June 19	1459	831	43	1415
Wood, James J., Brooklyn, N. Y. Electric-arc lamp.	384,817	June 19	1462	{ 381 382 }	{ 43 43 }	1416
Wood, James J., Brooklyn, N. Y. Suspension-arm for electric lamps.	385,493	July 3	242	63	44	48
Wood, James P., assignor of one-half to G. P. Glazier, Chelsea, Mich. Cream-testing churn.	383,082	May 15	1798	466	43	876
Wood, James R., et al. (See Languth, Charles, assignor.)						
Wood, John. (See Crandall, Jesse A., assignor.)						
Wood, John B. (See Wood, Peter W. and J. B.)						
Wood, John B., Montreal, Quebec, Canada. Electric circuit.	394,946	Dec. 18	1889	{ 488 489 }	{ 45 45 }	1455
Wood, Joseph W., Baraboo, Wis., and A. B. Wood, Tacoma, Wash. Ter. Rope-clamp.	393,952	Dec. 4	317	87	45	1133



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dis.	Vol.	Page.
Wood, Julia B., Manchester, N. H. Draft-hook for vehicles .....	375,859	Jan. 3	173	49	42	39
Wood, Julia E., Syracuse, N. Y. Corset .....	389,948	Sept. 25	1748	463	44	1429
Wood, Leander W., Fontanelle, Iowa. Nose-ring .....	386,517	July 24	1758	464	44	368
Wood, Milton R., Chicago, Ill. Anti-friction bearing .....	378,350	Feb. 21	1516	397	42	807
Wood, Milton R., Chicago, Ill. Anti-friction bearing .....	390,424	Oct. 2	315	83	45	67
Wood, Milton R., Brooklyn, N. Y. Apparatus for the manufacture of soda .....	379,752	Mar. 20	1303	348	42	1229
Wood, Milton R., Brooklyn, N. Y. Manufacture of bicarbonate of soda .....	384,884	June 19	1567	407	43	1434
Wood, Montraville M., Erie, Pa. Electrical annunciator .....	385,894	July 10	846	224	44	173
Wood Mowing and Reaping Machine Company, Walter A. (See Howe, George H., assignor.)						
Wood, Palmer M., Herkimer, and J. L. McMillan, Ithaca, N. Y. Book-binding .....	392,938	Nov. 13	1114	259	45	817
Wood, Parker L., Haymarket, Va. Car-coupling .....	391,572	Oct. 23	1944	524	45	401
Wood, Peter W. and J. B. Montreal, Quebec, Canada. Mechanism for electrical connections .....	376,973	Jan. 24	1808	476	42	368
Wood, Richard G., Cincinnati, Ohio. Ballot-box .....	387,572	Aug. 7	575	150	44	683
Wood, Richard G., assignor to Hall & Wood Ballot Box Company, Cincinnati, Ohio. Registering and canceling ballot-box .....	393,953	Dec. 4	319	87	45	1134
Wood, Richard H. (See Stearns, William T., assignor.)						
Wood, Rosto O. (See Perry, Carlston C., assignor.)						
Wood, Samuel J., Somerville, Mass. Combined anti-rattler and lock for tlbill-couplings .....	392,249	Nov. 6	106	27	45	615
Wood, Wallace R., Chicago, Ill. Banjo .....	394,530	Dec. 11	1178	307	45	1303
Wood, Willard R., Sr., Hedgesville, N. Y. Automatic car-brake .....	395,104	Dec. 25	2130	551	45	1511
Wood, William P., Clayton, Ga. Elevated railway .....	376,829	Jan. 21	1615	423	42	311
Wood, William P., assignor of two-thirds to R. W. Thacher and F. U. Bresler, Albany, N. Y. Station-indicator .....	394,237	Dec. 11	743	197	45	1222
Woodard, Alonzo B., Andover, assignor of one-half to R. W. Barney, Hornellsville, N. Y. Vulcanizing apparatus .....	381,183	June 5	506	138	43	1219
Woodard, Alvin N., Jamestown, N. Y. Corn and bean planter .....	390,425	Oct. 2	317	83	45	67
Woodard, Alvin N., Jamestown, N. Y. Potato-digger .....	390,426	Oct. 2	318	84	45	67
Woodard, William H., assignor of one-half to F. J. Hansen, Sioux City, Iowa. Weather-strip .....	390,637	Oct. 2	607	161	45	122
Woodbury, A. O. (See Ross and Darter, assignors.)						
Woodbury, Daniel A., Rochester, N. Y. Adjusting relief-plate wedges of slide-valves .....	382,674	May 8	1909	313	43	751
Woodbury, Frank P. (See Richardson, John E., assignor.)						
Woodbury, George E., San Francisco, Cal. Apron for ore-concentrating machines .....	381,456	Apr. 17	1745	467	43	356
Woodbury Heel Company. (See Smith, Aaron F., assignor.)						
Woodbury, Isaac A., East Cambridge, Mass. Belt or endless apron for ore-concentrators .....	387,964	Aug. 14	1165	316	44	804
Woodbury, Leander S., Calumet, Mich. Locomotive .....	383,790	May 29	2868	754	43	1098
Woodbury, Leander S., Calumet, Mich. Mining-skip .....	394,633	Dec. 18	1363	337	45	1352
Woodbury, Orlando. (See Mackay, George H., assignor.)						
Woodcock, Henry, Perth Amboy, N. J. Png-mill .....	388,167	Aug. 21	1511	402	44	876
Woodcock, James S., New Lexington, Ohio. Grinding-mill .....	382,302	May 1	472	121	43	600
Woodcock, Leonard M., Auburn, N. Y. Grate .....	384,409	June 12	854	222	43	1291
Woodcock, Leonard M., Auburn, N. Y. Furnace-grate .....	384,410	June 12	856	223	43	1292
Woodford, Wesley W., Unionville, assignor to Upson Nut Company, Farmington, Conn. Bolt .....	378,857	Feb. 28	2268	603	42	960
Woodhull, Anna M., Freehold, N. J. Safety-seal for checks .....	385,158	June 26	1978	506	41	1527
Woodin, Emory M., and F. J. Gibbs, Tyrone, Pa. Railway-rail bender and straightener .....	377,184	Jan. 31	2108	556	42	445
Woodie, Isaac N., Albany, Oreg. Draft-equalizer .....	392,530	Nov. 6	518	130	45	693
Woodman, Alvin, Marysville, New Brunswick, Canada. Lease-forming mechanism for warping-machines .....	380,641	Apr. 3	497	139	43	102
Woodman, Charles, Chelsea, Mass. Machine for winding sewing-machine bobbins .....	381,457	Apr. 17	1746	467	43	356
Woodman, Robert, Malden, Mass. Ticket-punch .....	392,298	Nov. 6	172	45	45	626
Woodmitt, Henry C., Mineola, N. Y. Device for assisting in training horses .....	381,745	Apr. 21	2164	546	43	456
Woodruff, Abram M., Superior, Nebr. Safety-shoe for car-trucks .....	388,168	Aug. 21	1511	403	44	876
Woodruff, Cyrus H., et al. (See Dean, Cyrus S., assignor.)						
Woodruff, Eber, Highwood, Ill. Necktie-fastener .....	389,128	Sept. 4	492	125	44	1164
Woodruff, Edwin O., Knoxville, Iowa. Plug-top or spark-catcher .....	376,498	Jan. 17	1097	288	42	225
Woodruff, Eliza M., et al. (See Woodruff, Theodore T., assignor.)						
Woodruff, Theodore T., assignor to E. M. Woodruff, J. E. McManus, and A. Wartham, Philadelphia, Pa. Screw-propeller .....	387,671	Aug. 14	719	184	44	718
Woodruff, William L., Towanda, Pa. Lawn-mower for terraces .....	386,444	July 17	1638	431	44	339
Woods Electric Company. (See Woods, Granville T., assignor.)						
Woods, Granville T., Cincinnati, Ohio. Galvanic battery .....	387,830	Aug. 14	961	250	44	764
Woods, Granville T., Cincinnati, Ohio. Railway-telegraphy .....	388,803	Aug. 28	2141	659	44	1061
Woods, Granville T., assignor to Woods Electric Company, Cincinnati, Ohio. Overhead conducting system for electric railways .....	383,844	May 29	2950	780	43	1113
Woods, Granville T., assignor to Woods Electric Company, Cincinnati, Ohio. Electro-motive railway .....	385,031	June 26	1793	462	43	1489
Woods, Granville T., assignor to Woods Electric Company, Cincinnati, Ohio. Tunnel-construction for electric railways .....	386,282	July 17	1105	370	44	288
Woods, Henry J., Muskegon, Mich. Boat-launching carriage .....	390,543	Oct. 2	489	128	45	99
Woods, John T., Superior, Nebr. Feeding bin and trough .....	378,536	Feb. 28	1785	471	42	869
Woods, Joseph T., Toledo, Ohio. Surgeon's suture-carrier .....	385,586	July 3	331	98	44	76
Woods Machine Company, S. A. (See Woods and Thomas, assignors.)						
Woods, Sherwood & Co. (See Dudley, George D., assignor.)						
Woods, Sherwood & Co. (See Latham, Cyrus H., assignor.)						
Woods, Solomon A., and J. R. Thomas, Boston, Mass., assignors to S. A. Woods Machine Company, of Massachusetts. Planing-machine .....	385,895	July 10	817	221	44	173
Woods, Solomon A., and J. R. Thomas, Boston, Mass., assignors to S. A. Woods Machine Company, of Massachusetts. Planing-machine .....	388,103	Aug. 21	1512	401	41	876
Woods, Solomon A., and J. R. Thomas, Boston, Mass., assignors to S. A. Woods Machine Company, of Massachusetts. Loose pulley .....	388,942	Sept. 4	206	54	41	1111
Woods, Solomon A., and J. R. Thomas, Boston, Mass., assignors to S. A. Woods Machine Company, of Massachusetts. Upright matching-machine .....	391,003	Oct. 9	1146	303	45	229
Woodward, Charles J., Oak Harbor, Ohio. Railway-station signal .....	385,742	July 10	615	160	44	127
Woodward Electrical Company. (See Thompson, Charles H., assignor.)						
Woodward Electrical Company. (See Woodward, Henry, assignor.)						
Woodward, Ellen E. L., Chicago, assignor of one-half to F. S. Woodward, Turner, Ill. Safety-car .....	383,845	May 29	2951	781	43	1113
Woodward, Erastus, Souerville, Mass. Tack-driving machine .....	389,275	Sept. 11	734	186	44	1219
Woodward, Erastus, Boston, assignor to Pentucket Variable Stitch Sewing Machine Company, Haverhill, Mass. Feeding device for sewing-machines .....	380,008	Mar. 27	1723	461	42	1319

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Woodward, Erastus, Somerville, Mass., assignor to Morley Button Sewing Machine Company, Portland, Me. Shuttle and shuttle-driver for sewing-machines .....	390,147	Sept. 25	2039	543 { 543 544	44	1488
Woodward, Erastus, Somerville, Mass., assignor to Morley Button Sewing Machine Company, Portland, Me. Machine for sewing on buttons .....	390,148	Sept. 25	2040	545 { 545 546 547	44	1488
Woodward, Frederick S. (See Woodward, Ellen E. L., assignor.)						
Woodward, George W., Brooklyn, assignor to Ansonia Brass and Copper Company, New York, N. Y. Lamp .....	386,861	July 31	2280	599	44	474
Woodward, Henry, assignor, by mesne assignments, to Woodward Electrical Company, Detroit, Mich. Primary electric battery .....	379,551	Mar. 13	1002	268	42	1163
Woodward, Henry, assignor, by mesne assignments, to Woodward Electrical Company, Detroit, Mich. Primary electric battery .....	379,552	Mar. 13	1003	269	42	1163
Woodward, Henry, assignor, by mesne assignments, to Woodward Electrical Company, Detroit, Mich. Thermopile .....	394,090	Dec. 4	519	133	45	1171
Woodward, Henry, Shepherd's Bush, county of Middlesex, England, assignor to Woodward Electrical Company, Detroit, Mich. Producing electrodes for secondary batteries .....	393,954	Dec. 4	322	87, 88	45	1134
Woodward, Henry, Shepherd's Bush, county of Middlesex, England, assignor to Woodward Electrical Company, Detroit, Mich. Electrode for secondary batteries .....	393,955	Dec. 4	321	88	45	1134
Woodward, James H., Seward, Nebr. Therapeutic electrode .....	390,544	Oct. 2	492	128	45	99
Woodward, John, and R. Anderson, Oil Springs, Ontario, Canada. Pump .....	388,943	Sept. 4	208	55	44	1112
Woodward, William H., Chicago, Ill. Means for transmitting power to traction-cables .....	390,638	Oct. 2	608	162	45	132
Woodworth, Albert L., Norfolk, Va. Sounding alarm-buoy .....	388,384	Aug. 21	1851	492	44	941
Woolston, Joseph H., assignor to Barnes Manufacturing Company, New Haven, Conn. Reversible latch .....	394,428	Dec. 11	1029	270	45	1277
Woolf, Samuel, New York, N. Y. Reversible vest for ladies' garments .....	383,550	May 29	2514	663	43	1026
Woolfolk, Alexander M., Chicago, Ill. Dumping-wagon .....	382,787	May 15	1365	{ 358 359	43	790
Woolford, Thomas Y., Augusta, W. Va. Snow-plow .....	389,040	Sept. 4	340	89	44	1137
Woollen, Frank P. (See Cunningham and Lowry, assignors.)						
Woolley, Joseph, Rutland, Vt. Railway snow-plow and car combined .....	376,698	Jan. 17	1402	369	42	282
Woolley, Samuel, Long Branch, N. J. Curtain-fastening .....	393,286	Nov. 20	1623	426	45	925
Woolley, William C., and D. Belmer, Santa Rosa, Cal. Pruning-shears .....	393,197	Nov. 20	1489	389	45	898
Woolsey, John S., Gilroy, Cal. Lawn-sprinkler .....	390,427	Oct. 2	320	84	45	68
Woolsey, L. Jerome, Egypt, N. Y. Calendar .....	394,805	Dec. 18	1652	432	45	1411
Woolvorton, John E., assignor of two-thirds to O. Cady and G. W. Smith, Cincinnati, Ohio. Device for displaying advertisements .....	392,939	Nov. 13	1115	{ 289 290	45	817
Wooster, Charles I., Berlin, N. J. Bird and packing box .....	388,385	Aug. 21	1872	492	44	941
Wooster, Charles I., Berlin, N. J. Rust-preventer for fire-arms .....	388,804	Aug. 28	2443	659	44	1062
Wootten, John E., Reading, Pa. Mucilage-can .....	382,746	May 15	1367	343	43	779
Wootton, William S., Scottsburg, Va. Road-engine .....	387,612	Aug. 7	636	165	44	694
Worcester Ferrule Company. (See Converse, Edmund, assignor.)						
Worcester Ferrule Company. (See Matthews, Ambrose T., assignor.)						
Word, Arthur M., assignor to Towers & Sullivan Manufacturing Company, Rome, Ga. Harrow .....	390,275	Oct. 2	105	30	45	24
Worden, Alva. (See Lang, John S., assignor.)						
Workman, Samuel, Beatrice, Nebr. Safety express-car .....	385,396	July 3	82	23, 24	44	18
Wormley, David. (See Edwards and Walton, assignors.)						
Worrall, Thomas D., Lynn, Mass. Printing-press .....	382,345	May 8	703	177	43	652
Worrall, Thomas H., Laconia, N. H. Needle-cylinder for knitting-machines .....	381,197	Apr. 17	1362	364	43	281
Worth, George W., Prospectville, Pa. Wire-fence coupler and tightener, and slackener and opener .....	392,299	Nov. 6	173	45	45	626
Worthington, Albert I., St. Clair, Mich. Hair-tonic .....	375,660	Jan. 3	175		42	39
Worthington, Amasa, Brooklyn, N. Y. Boiler .....	381,870	Apr. 24	2362	{ 612 613	43	493
Worthington, Amasa, Brooklyn, N. Y., assignor to Abendroth & Root Manufacturing Company, of New York. Boiler .....	377,001	Jan. 24	1852	488	42	376
Worthington, Amasa, Brooklyn, N. Y., assignor to Abendroth & Root Manufacturing Company, of New York. Boiler .....	377,002	Jan. 24	1853	{ 488 489	42	376
Worthington, Charles C., et al. (See Hines, Dauphin S., assignor.)						
Worthington, Charles C., Irvington, N. Y. Shade for candles or tapers .....	377,345	Jan. 31	2357	682	42	480
Worthington, Charles C., Irvington, N. Y. Engine .....	385,397	July 3	87	24	44	19
Worthington, James K., et al. (See Payne, William H., assignor.)						
Wortman, Jacob L., Philadelphia, Pa. Manifold sheet .....	376,764	Jan. 24	1505		42	311
Worts, George F., et al. (See Patterson and Noteman, assignors.)						
Wostenholm, George. (See Meysenburg and Wostenholm.)						
Wotruba, Johann, Aachen, Germany, assignor to E. E. V. Seyfried, Newark, N. J. Box-fastener .....	394,320	Dec. 11	874	231	45	1248
Wren, David L. (See Clark and Wren.)						
Wren, John, Dennquat, Ohio. Fence-post .....	391,395	Oct. 16	1706	453	45	343
Wright, Aaron, assignor of three-fourths to G. Wright, L. W. and E. Groat, Hudson, N. Y. Sand-band for wheel hubs .....	388,937	Aug. 21	1606	429	44	896
Wright, Abner M., Chicago, Ill. Car-axle .....	387,197	July 31	2776	726	44	565
Wright, Arthur W., Detroit, Mich. Lubricator for car-axles .....	392,142	Oct. 30	2794	758	45	579
Wright, Benjamin, Los Gatos, Cal. Nozzle .....	385,653	July 3	480	124	44	93
Wright, Berton L., Bridgeport, Conn. Brake handle .....	391,004	Oct. 9	1149	303	45	230
Wright, Charles D., Petersburg, Ill. Cut-out .....	385,494	July 3	245	63	44	49
Wright, Charles H., Chicago, Ill. Burglar-alarm .....	379,141	Mar. 6	408	115	42	1043
Wright, Elijah, assignor to Davis & Furber Machine Company, North Andover, Mass. Mechanism for operating doffer-combs of carding-machines .....	381,516	Apr. 17	1837	{ 485 486	43	374
Wright, Eliza M., New York, N. Y. Combined hook and eye and safety pin .....	393,319	Nov. 20	1668	440	45	934
Wright, Firmin B., et al. (See Hughes, Tyre C., assignor.)						
Wright, Frank E., et al. (See Bloomfield and Clark, assignors.)						
Wright, Frank W., Burlington, Vt. Hanging and operating Venetian blinds .....	385,654	July 3	482	121	44	94
Wright, Frank W., Burlington, Vt. Blind-slat and operating-rod .....	385,689	July 3	530	138	44	104
Wright, Franklin H., Lake View, Ill. Rolling sheet metal .....	381,746	Apr. 24	2164	566	43	457
Wright, Franklin H., Lake View, Ill. Rolling-mill .....	393,805	Dec. 4	98	28	45	1092
Wright, Fred, et al. (See Rickard and Wright, assignors.)						
Wright, Frederick T. (See Rickard and Wright.)						
Wright, George A. (See Wright and Abbott.)						
Wright, George B. (See Eckerson, David L., assignor.)						
Wright, George H., San Francisco, Cal. Railway-signal .....	386,049	July 10	1045	{ 279 280	44	214

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Drig.	Vol.	Page.
Wright, Gilbert, <i>et al.</i> (See Wright, Aaron, assignor.)						
Wright, Henry T., Walden, N. Y. Life-boat	389,915	Sept. 25	1708	452	44	1421
Wright, James. (See Thompson, Robert, assignor.)						
Wright, James, <i>et al.</i> (See Querol y Delgado, Emilio, assignor.)						
Wright, James K. P., Lowry City, Mo. Saddle-bags or satchel	394,321	Dec. 11	874	231	45	1248
Wright, John, Hoosick Falls, N. Y. Gas-bracket	384,302	June 12	693	185	43	1263
Wright, John, Kirkcaldy, county of Fife, Scotland. Machinery for printing floor-cloths, &c.	389,995	Sept. 25	1818	481	44	1442
Wright, John, Toronto, Ontario, Canada. Car-coupling	394,147	Dec. 4	600	161	45	1186
Wright, John A. and G. A., and W. and T. Abbott, Terre Haute, Ind. Boiler-cleaning compound	391,105	Oct. 16	1308		45	267
Wright, John M., Mundy, Mich. Fence-machine	389,129	Sept. 4	492	136	44	1164
Wright, John R., <i>et al.</i> (See Geddes, James W., assignor.)						
Wright, Maurice L. (See Miller, Erskine, and Wright.)						
Wright, Maurice L. (See Miller and Wright.)						
Wright, Morris S., Worcester, Mass., assignor to R. Fry, Morristown, N. J. Reed-organ	380,071	Mar. 27	1809	483	42	1336
Wright, Nathan, Cleveland, Ohio. Car-wheel	391,729	Oct. 23	2155	583	45	413
Wright, Nathan, and S. R. Shaver, Ingram, Ark. Railway or farm gate	382,032	May 1	213	56, 57	43	552
Wright, Parvin, Denver, Colo. Safety-valve for elevators	389,422	Sept. 11	954	249	44	1262
Wright, Parvin, Denver, Colo. Electric railway	391,447	Oct. 23	1779	475	45	364
Wright, Parvin, assignor of one-half to C. R. Northrop, Denver, Colo. Aquascope	378,126	Feb. 21	1170	365	42	743
Wright, Parvin, assignor of seventy one-hundredths to P. C. Horn and C. R. Northrop, Denver, Colo. Telephone	390,428	Oct. 2	321	81	45	68
Wright, Robert D., Kirkwood, Mo. Galvanic battery	394,670	Dec. 18	1425	372	45	1364
Wright, Thomas H., Covington, Ky. Measuring-rule	392,143	Oct. 30	2795	759	45	579
Wright, Thomas W. (See Kanftman and Mercer, assignors.)						
Wright, Walter K., and W. H. Brown, Fort Concho, Tex. Self-registering target	381,517	Apr. 17	1-38	486	43	375
Wright, Washington, Clayton, N. J. Car-ventilator	381,181	June 5	507	129	43	1219
Wright, William, assignor to himself and G. O. Avery, Boston, Mass. Bottle-stopper	386,176	July 17	1239	330	44	258
Wright, William E., Ashland, Neb. Ribbon-holder	381,198	Apr. 17	1363	364	43	281
Wright, William H., San José, Cal. Can-filling machine	376,403	Jan. 10	948	248	42	190
Wright, William H., Huntingdon, Pa. Flower-stand	379,261	Mar. 13	574	159	42	1080
Wright, William H., Buffalo, N. Y. Vehicle-axle	391,219	Oct. 16	1460	390	45	297
Wright, William W., Willink, N. Y. Chimney-top	377,508	Feb. 7	247	60	42	542
Wright, William W., Willink, N. Y. Window	394,148	Dec. 4	600	161	45	1186
Wrightson, Robert N. (See Wrightson, William and R. N.)						
Wrightson, William and R. N., Linwood, Pa. Knitted fabric	393,734	Nov. 27	22-9	601	45	1065
Wrigley, Thomas, Oak Park, Ill. Combined printer and index-cutter	377,796	Feb. 14	708	178 179 180	42	645
Wrigley, William H., New Orleans, La. Car-coupling	375,973	Jan. 3	340	91	42	69
Wrinkle, Laurence F. J., Virginia City, Nev. Treating native soda	387,613	Aug. 7	639		44	695
Wuchner, George G., Louisville, Ky. Shaker	395,303	Dec. 25	2447	629	45	1568
Wuerker, Christian, Alton, Ill. Tug	393,600	Nov. 27	2095	548	45	1028
Wüg, Christopher. (See Wilcox, Isaac F., assignor.)						
Wulff, Henry F., assignor of one-half to M. B. Mayer and A. Cohen, San Antonio, Tex. Combined wardrobe, bureau, and wash-stand	382,400	May 8	786	199	43	668
Wunderle, Philip. (See Hartman, Zachary T., assignor.)						
Wunderlich, Charles, Washington, Mo. Washer-cutter	376,974	Jan. 24	1812	477	42	369
Wundt, Charles L., Burlington, Iowa. Receipt-pad for file-cases	380,009	Mar. 27	1724	462	42	1319
Wunsch, Henry, <i>et al.</i> (See Eldredge, John V. D., assignor.)						
Wurts, Alexander, assignor to Westinghouse Electric Company, Pittsburg, Pa. System of electric meters	392,577	Nov. 6	584	147	45	707
Wyatt, Franklin O., <i>et al.</i> (See Kirby, James A., assignor.)						
Wyckoff, Arealous and E. L., Elmira, N. Y. Wood-drying kiln	388,102	Aug. 21	1386	373	44	854
Wyckoff, Ernest L. (See Wyckoff, Arealous and E. L.)						
Wyckoff, James W., Marquette, Mich. Rock-drilling tool	395,105	Dec. 25	2132	551	45	1512
Wyckoff, Seamus and Benedict. (See Horrocks, William, assignor.)						
Wyeth, Henry M., Council Bluffs, Iowa. Pump	386,910	July 31	2355	618	44	489
Wyggle, Archibald R., Kingman, Kans. Pipe-wrench	380,072	Mar. 27	1812	484	42	1336
Wyggle, Archibald R., Kingman, Kans. Claw-bar	384,223	June 5	565	155	43	1230
Wylie, Andrew J., Richland, Mich. Nut-lock	383,162	May 22	1919	562	43	909
Wyly, William P., Patterson, Ga. Guide-rail clamp	392,940	Nov. 13	1117	290	45	818
Wyly, William P., Patterson, Ga. Guide-rail clamp	392,941	Nov. 13	1120	291	45	818
Wyman, Frank H. (See McIntosh, William E., assignor.)						
Wyman, Horace. (See Lund, William, assignor.) (Reissue.)						
Wyman, Horace, Worcester, Mass. Stopping mechanism for looms	383,163	May 22	1920	502	43	909
Wyman, Horace, Worcester, Mass. Fire-extinguishing apparatus	392,250	Nov. 6	107	28	45	615
Wyman, Horace, Worcester, Mass. Fire-extinguishing apparatus	392,251	Nov. 6	109	28	45	615
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Loom driving-gear	381,518	Apr. 17	1839	486	43	375
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Shuttle-box for looms	381,519	Apr. 17	1840	4-7	43	375
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Wool-combing machine	385,690	July 3	531	139	44	105
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Shedding mechanism for looms	385,691	July 3	536	139	44	106
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Expanding pulley of shuttle-box motions for looms	385,696	July 10	850	221	41	174
Wyman, Horace, assignor to Crompton Loom Works, Worcester, Mass. Jacquard mechanism for looms	391,730	Oct. 23	2157	583	45	413
Wyman, John A., New York, N. Y. Mechanism for cleaning sewers	382,127	May 1	369	96	43	581
Wyman, Joseph A. R., assignor to W. C. Huntley Kindling Wood Company, South Gardiner, Me. Wood-drying kiln	379,145	Mar. 6	409	115 116	42	1043
Wymond, Gilbert H. (See Sargent, John N., assignor.)						
Wynkoop, George W. (See De Freest and Wynkoop.)						
Wynne, Frank, Westminster, county of Middlesex, England. Contact-making device for electric railways	381,048	Apr. 10	1132	303	43	228
Wyrick, Marion, <i>et al.</i> (See Skiles, Robert I., assignor.)						
Wythe, William H. (See Wythe, William W., assignor.)						
Wythe, William R., assignor to himself and J. D. Axtell, Santa Barbara, Cal. Commode	385,495	July 3	246	63	44	49
Wythe, William W., Parker's Landing, Pa., assignor to W. H. Wythe, Chautauqua, N. Y. Cash register and indicator	384,490	June 12	962	250 251	43	1312
Wytenbach, Edward, Carlisle, Ky. Machine for honing razors	376,321	Jan. 10	705	188	42	145

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'tt	Vol.	Page.
Xander, Christian, and W. Thomas, Washington, D. C. Bottle-funnel .....	388,386	Aug. 21	1853	492	44	942
Yale, John A., <i>et al.</i> (See Hardy, John J., assignor.)						
Yale & Towne Manufacturing Company. (See Taylor, Warren H., assignor.)						
Yancey, J. A. (See Hanser, John A., assignor.)						
Yáñez, Adolfo S., New York, N. Y. Instrument for dividing angles .....	381,049	Apr. 10	1135	303	43	229
Yáñez, Adolfo S., Havana, Cuba. Lamp-wick .....	388,609	Aug. 28	2160	580	44	1009
Yarbrough, Charles F., assignor of one-half to S. Q. Sevier, C. K. Sithen, and R. O. Alexander, Camden, Ark. Metallic railway cross-tie and fastening .....	395,304	Dec. 25	2147	629	45	1568
Yarger, John A., New Hampton, Iowa. Game-counter .....	394,900	Dec. 18	1814	469	45	1440
Yarwood, Matthew C. (See Bean, Charles E., assignor.)						
Yarwood, Matthew C., <i>et al.</i> (See Shepard, William P., assignor.)						
Yarwood, Matthew C., Fall River, Mass. Stop mechanism for knitting-machines .....	387,672	Aug. 14	721	185	41	718
Yaryan, Homer T., Toledo, Ohio. Vacuum evaporating apparatus .....	383,384	May 22	2234	<sup>593</sup> 594 595	43	968
Yates, John W., and S. I. Bailor, Geneva, Nebr. Road-scraper .....	388,944	Sept. 4	209	55	44	1112
Yates, William, New York, N. Y. Hand-punch .....	385,897	July 10	851	225	44	174
Yates, William H., assignor of one-third to S. B. Spiller, Auburn, N. Y. Convertible vehicle .....	381,663	Apr. 21	2046	536	43	434
Yanger, Elam R., Rockwood, Tenn. Car-coupling .....	383,424	May 22	2308	612	43	980
Yauman, Phillip H., Rochester, N. Y. Fishing-reel .....	378,565	Feb. 23	1831	483	42	877
Yeadon, John A., and R. Middleton, Leeds, county of York, England, assignors to said Middleton. Peat-machine .....	392,770	Nov. 13	882	<sup>225</sup> 226	45	771
Yeagle, Martin, assignor of one-half to E. D. Barto, Watsontown, Pa. Shoe .....	381,224	June 5	567	155	43	1231
Yeakley, Melvin A., Litchfield, Ohio. Hay-stacker .....	386,518	July 24	1758	<sup>464</sup> 465	44	368
Yeaton, Frank W. (See Pickering, Leander P., assignor.)						
Yeiser, Henry C., assignor to Globe Company, Cincinnati, Ohio. File-holder .....	378,072	Feb. 14	1087	276	42	720
Yelland, William, Jr., Brooklyn, N. Y. Sash-fastener .....	386,678	July 24	1978	522	44	411
Yemans, Wallace C., Coudensport, Pa. Device for dressing the teeth of saws .....	388,805	Aug. 28	2441	659	44	1062
Yerkes, Augustus A., Philadelphia, Pa. Apparatus for coloring paper .....	395,257	Dec. 25	2388	611	45	1556
Yerkes, Charles T. (See Roberts, De Witt C., assignor.)						
Yingling, George S. (See Vannett, Jasper, assignor.)						
Yingst, Cyrus, Annville, Pa. Tricycle .....	394,429	Dec. 11	1030	270	45	1277
Yoakum, Isaac T., Barry, Ill. Stock-chute .....	379,146	Mar. 6	410	116	42	1043
Yocum, Frank. (See Evenson and Yocum.)						
Yoe, Philip, Dayton, Ohio. Indicating and calculating machine .....	388,518	Aug. 28	2027	<sup>545</sup> 546	44	983
Yokom, Wilford W., New Hartford, Iowa, assignor to F. C. Austin, Chicago, Ill. Steam-generator .....	391,767	Oct. 23	2205	596	45	454
York, Abbie R., trustee. (See Allen, Nathaniel, assignor.)						
York, Frank C., Salina, Kans. Line-protector .....	381,458	Apr. 17	1747	467	43	356
York Manufacturing Company. (See Johnson, Samuel M., assignor.)						
Yost, Charles A., New York, N. Y. Cloth-cutting machine .....	393,495	Nov. 27	1936	<sup>506</sup> 507	45	994
Yost, George W. N., New York, N. Y., assignor, by mesne assignments, to American Writing Machine Company, of New York. Type-writing machine .....	386,100	July 10	1130	300	44	229
Yost Writing Machine Company. (See Steiger, Andrew W., assignor.)						
Youlls, George W. (See Moyer and Youlls.)						
Yomans, Walter, assignor, by mesne assignments, to J. W. Emerson, New York, N. Y. Car-truck .....	383,164	May 22	1922	<sup>502</sup> 503	43	910
Yomans, William W., Caldwell, Kans. Buckle .....	393,090	Nov. 20	1338	349	45	868
Young, Albert B., <i>et al.</i> (See Kayser, Adolf, assignor.)						
Young, Albert R., Green Spring, Ohio. Burial apparatus .....	374,947	Dec. 18	1893	489	45	1456
Young, Alexander, Honolulu, Hawaii. Process of and apparatus for cleaning saccharine liquids .....	387,388	Aug. 7	284	73	41	627
Young, Alphens, Jr., Worcester, Mass. Breast-pin .....	393,413	Nov. 27	1805	477	45	969
Young, Calvin, Auburn, assignor of one-half to D. M. Osborne & Company, New York, N. Y. Grain-binding machine .....	382,203	May 1	475	<sup>121</sup> 122	43	600
Young, Charles H., assignor of one-half to R. F. McLeod and B. H. Townsend, Leadville, Colo. Cloth-measuring machine .....	386,050	July 10	1047	280	44	214
Young, Charles M., Ely, Ind. Sawing-machine .....	380,073	Mar. 27	1813	484	42	1337
Young, Charles M., assignor to American Economic Heater Company, Chicago, Ill. Vapor-burner .....	393,050	Nov. 20	1287	334	45	859
Young, Charles P., and J. W. Shertzer, said Shertzer assignor to J. H. Thomas, York, Pa. Cigar-cutter .....	385,221	June 26	2067	530	43	1545
Young, Charles P., and J. H. Thomas, York, Pa. Cigar-cutter .....	386,733	July 24	2051	540	44	424
Young, Charles S., and G. E. Painter, Baltimore, Md. Electric annunciator .....	380,010	Mar. 27	1725	<sup>462</sup> 463	42	1319
Young, Charles W., Erie, Pa. Gas-burner .....	379,435	Mar. 13	828	223	42	1130
Young, Christie L., assignor to C. S. Saxton, Springfield, Mass. Tool-handle .....	377,003	Jan. 21	1854	489	42	377
Young, Edwin J., A. Lambert, Wadsworth, and H. R. Ferris, Cleveland, assignors to Garfield Injector Company, Wadsworth, Ohio. Injector .....	384,666	June 19	1235	326	43	1372
Young, Frank, <i>et al.</i> (See Church, Walter A., assignor.)						
Young, George A., Brooklyn, N. Y. Grinding-mill .....	394,238	Dec. 11	715	197	45	1222
Young, Henry M., Minneapolis, Minn. Apparatus for preventing fires and extinguishing lights in railway-cars .....	376,699	Jan. 17	1403	369	42	282
Young, Henry M., Minneapolis, Minn., assignor, by mesne assignments, to Young Safety Heating and Lighting Company. Apparatus for extinguishing the lights of car-lamps .....	377,445	Feb. 7	147	33	42	523
Young, Hiram C., Washington, N. H. Knitting-machine .....	382,346	May 8	706	178	43	653
Young, Horace A., Worcester, Mass. Wire-rod-reeling machine .....	381,199	Apr. 17	1364	<sup>361</sup> 365	43	281
Young, Howard L., <i>et al.</i> (See Shepherd, Lewis T., assignor.)						
Young, James E., Brooklyn, N. Y., and J. E. McGee, Newark, N. J. Coat or hat lock .....	390,330	Oct. 2	181	49	45	39
Young, James H., Troy, N. Y. Supplemental car-seat .....	389,041	Sept. 4	342	89, 90	44	1137
Young, John, Chicago, Ill. Automatic fire-alarm system .....	381,896	Apr. 24	2403	625	43	503
Young, John, assignor to Walts Campbell Company, Newark, N. J. Valve-gear .....	381,747	Apr. 24	2166	567	43	457
Young, John, assignor to Western Electric Company, Chicago, Ill. Automatic fire-alarm .....	382,788	May 15	1370	<sup>359</sup> 360	43	791
Young, John C., Newark, N. J. Arc lamp .....	392,393	Nov. 6	323	80, 81	45	655
Young, John H., Concord, N. H. Skato .....	388,170	Aug. 21	1516	404	44	877
Young, John N. (See Quigg, George B., assignor.)						
Young, John R., Osceola, Mo. Tongue-support .....	379,525	Mar. 13	966	260	42	1156
Young, John R., assignor to himself, M. S. Wheeler, and J. S. Linney, Osceola, Mo. Spring-tooth attachment for cultivators .....	390,276	Oct. 2	106	30	45	24

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. & G.	Vol.	Page.
Young, Joseph. (See Lanning and Young.)						
Young, Joseph E., <i>et al.</i> (See Hardy, John J., assignor.)						
Young, Joseph M., Moline, Ill. Plow-wheel	375,789	Jan. 3	93	27	42	22
Young, Lewis R. (See Kocher and Ranck, assignors.)						
Young, Robert O., assignor of three-fifths to Massillon Stone and Fire Brick Company, Pittsburg, Pa. Tuyere	393,136	Nov. 20	1398	365	45	880
Young Safety Heating and Lighting Company. (See Young, Henry M., assignor.)						
Young, Samuel J., Brooklyn, assignor to Kiggins & Tooker Co., New York, N. Y. Fastening-band for memorandum-books	393,198	Nov. 20	1490	389	45	899
Young, Shaffer H. (See Young and Knode.)						
Young, Thomas J., assignor, by mesne assignments, to himself, C. L. Perrin, and M. Wilmarth, Boston, Mass. Conduit for underground pipes	384,948	June 19	1649	428	43	1451
Young, Webster, Cortland, N. Y. Corset	389,130	Sept. 4	493	126	44	1164
Young, Wesley. (See Norris, Daniel W., assignor.)						
Young, Wesley. (See Sells, Thomas, assignor.)						
Young, William H., assignor of one-half to W. J. Morden, Chicago, Ill. Cable-traction-railway track	379,922	Mar. 20	1586	418	42	1282
Young, William V., North Clarendon, Pa. Combined show-case and bin	395,106	Dec. 25	2133	551	45	1512
Young, Willis J. and S. H., and Z. U. Knode, Hebron, Nebr. Shelf attachment for stove-pipes	387,277	Aug. 7	111	30	44	594
Youngman, Jacob, assignor of one-half to J. M. Bastian, Sunbury, Pa. Balanced slide-valve	392,578	Nov. 6	586	147	45	707
Younts, Edwin J., assignor to Castree-Mallory Company, Flint, Mich. Picket-fence machine	390,739	Oct. 9	751	197	45	156
Yount, Silas T., Lafayette, Ind. Speculum	395,025	Dec. 25	2013	519	45	1488
Yuly, Judah L., and H. W. Andrews, Southsea, England. Expanding pulley	389,276	Sept. 11	736	187	44	1220
Yund, Charles C., <i>et al.</i> (See Yund, Theodore J., assignor.)						
Yund, Theodore J., assignor of three-fourths to T. F. Kennedy, T. F. Kyne, and C. C. Yund, Amsterdam, N. Y. Tag	385,083	June 26	1871	478	43	1505
Zahn, William, Newark, N. J. Tanning process	385,222	June 26	2069		43	1545
Zalinski, Edmund L., U. S. Army. Shell	384,660	June 19	1226	321	43	1370
Zalinski, Edmund L., U. S. Army. Shell for high explosives	384,661	June 19	1229	325	43	1371
Zalinski, Edmund L., U. S. Army. Magneto-electric fuse	384,662	June 19	1231	325	43	1371
Zalinski, Edmund L., U. S. Army. Projectile	384,663	June 19	1232	325	43	1371
Zalinski, Edmund L., U. S. Army. Shell-fuse	384,664	June 19	1233	325	43	1372
Zallud, Karl, assignor to L. Schultz and J. B. Hagenbuehle, New York, N. Y. Quilting-machine	376,621	Jan. 17	1282	337 338 339	42	260
Zallud, Karl, assignor of one-half to B. D. Gallaher, New York, N. Y. Car-axle box	380,379	Apr. 3	113	33	43	24
Zdziarski, Anthony, Samara, assignor to M. DeRoutkowsky, St. Petersburg, Russia. Rolling-mill	392,484	Nov. 6	454	114	45	681
Zebrowski, Feliks, New York, N. Y. Upright-piano action	389,183	Sept. 4	581	148	44	1181
Zech, Otto, assignor of one-half to G. A. Winemann, Detroit, Mich. Commutator for electric generators	389,184	Sept. 4	585	148	41	1181
Zechmeister, Ludwig. (See Weber, Philip J., assignor.)						
Zeck, Michael, assignor to himself and A. Doney, Chicago, Ill. Device for generating and burning gas or vapor	378,411	Feb. 21	1602	421	42	824
Zedert, Harry, New York, N. Y. Horse-head protector	378,858	Feb. 28	2268	603	42	960
Zeidler, Johann G. (See Weber and Zeidler.)						
Zeigler, Jesse L. (See Clark and Zeigler.)						
Zeigler, John F., St. Joseph, Mo. Car-coupling	389,827	Sept. 18	1552	411	41	1383
Zeiler, Ferdinand, New Market, Va. Composition for preserving eggs, &c	379,262	Mar. 13	575		42	1080
Zeis, Charles H., Cromers, Ohio. Strap or rein fastener	387,478	Aug. 7	409	107	44	653
Zeise, Alfred T., Ottensen, Germany. Screw-propeller	389,430	Sept. 11	955	250	44	1262
Zeleny, Johan. (See Rosenfeld and Zeleny.)						
Zelliff, James, Woodside, N. J. Whiffletree-coupling	389,350	Sept. 11	835	213	44	1240
Zelliff, James, assignor of one-half to L. Lemassena, Newark, N. J. Car-starter	384,602	Apr. 24	1964	517	43	418
Zell, Robert R., Newark, N. J. Plant for supplying heat and power	386,862	July 31	2281	600	44	475
Zeller, John J. A., <i>et al.</i> (See Swift, R. K., assignor.)						
Zelly, John, assignor of one-half to F. Fischer, Cincinnati, Ohio. Winding and setting attachment for clocks	381,603	Apr. 24	1966	517	43	418
Zelterberg, Herman. (See Schwinger, William, assignor.)						
Zengel, Joseph, Quincy, Ill., assignor, by mesne assignments, to Automatic Fence Loom Company, of New Jersey. Machine for making fence	388,610	Aug. 28	2161	580	44	1009
Zentner, Joseph. (See Barrett and Zentner.)						
Zentner, Joseph. (See Hale, Barrett, and Zentner.)						
Zerr, John, assignor of one-half to E. E. Hawkes, Keokuk, Iowa. Roll-paper holder and cutter	389,277	Sept. 11	737	187	44	1220
Zerr, John, assignor of one-half to E. E. Hawkes, Keokuk, Iowa. Roll-paper holder and cutter	393,956	Dec. 4	325	88	45	1134
Zettler, John B., Canton, Ohio. Window	389,490	Sept. 11	1044	278	44	1278
Zewicki, Ulysses, <i>et al.</i> (See Bunch, William, assignor.)						
Zickefoose, Western S. (See Haugh and Zickefoose.)						
Ziegler, Alfred M., Boston, Mass. Stocking-supporter	376,464	Jan. 17	1049	275	42	216
Ziegler, Andrew J. (See Hemsath and Ziegler.)						
Ziegler, Charles W., Scranton, Pa. Coal-separator	380,156	Mar. 27	1930	514 515	42	1360
Ziegler, Christian. (See Loth and Ziegler.)						
Ziegler, Frank P., Abdera, Pa. Spark-arrester	376,499	Jan. 17	1098	288	42	225
Ziegler, Franklin P., Abdera, Pa. Head-block for saw-mills	387,030	July 31	2521	662 663	44	522
Ziegler, Henry, New York, N. Y. Music-rack attachment for upright pianos	378,486	Feb. 28	1716	453	42	855
Ziegler, John B., Air Line Junction, Ohio. Water-filter	391,290	Oct. 16	1563	415	45	315
Ziegler, Louis, Brooklyn, N. Y. Machine for bundling kindling-wood	389,996	Sept. 25	1820	422	44	1112
Zimmer, Frederick W., New York, N. Y. Apparatus for soaking and stretching gelatine-coated sheets	390,429	Oct. 2	323	85	45	68
Zimmer, Frederick W., New York, N. Y. Stencil-copying apparatus	390,430	Oct. 2	325	85	45	69
Zimmer, Frederick W., New York, N. Y. Apparatus for soaking and stretching gelatine-coated sheets	390,639	Oct. 2	610	162	45	123
Zimmer, Frederick W., Rochester, N. Y. Carriage	394,239	Dec. 11	746	197	45	1222
Zimmer, Georg C. (See Diehl, Theodor, assignor.)						
Zimmerling, Charles, Philadelphia, Pa. Stove-polish	385,335	June 26	2256		43	1511
Zimmerman, Abraham M., Martinsdale, Pa. Draft cut-off for steam-engines	394,430	Dec. 11	1032	271	45	1277
Zimmerman, Albert, Chicago, Ill. Shoe or slipper	377,822	Feb. 14	739	187	42	650



*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Zimmerman, John. (See Rinoian and Zimmerman.)						
Zimmerman, Lewis. (See Baldwin, Chester M., assignor.)						
Zimmerman, Samuel, Martinsburg, Pa. Shafts for vehicles	379,843	Mar. 20	1464	386	42	1259
Zimmermann, George J., assignor to Niles & Scott Company, La Porte, Ind. Making metal wheels	392,252	Nov. 6	111	28, 29	45	616
Zimmermann, John, Syracuse, N. Y. Shoe-clasp	380,305	Mar. 27	2125	569	42	1339
Zimmermann, William F., Sewickley, assignor to Fuel Gas and Electric Engineering Com- pany, (limited,) of Pittsburg, Pa. Stove	387,940	Aug. 14	1129	302 303	44	797
Zinn, Simon, New York, N. Y. Pocket-book clasp	387,965	Aug. 14	1167	316	44	804
Zipernowsky, Carl, Buda-Pesth, M. Déri, Vienna, and O. T. Bláthy, Buda-Pesth, Austria- Hungary. Electric distribution by alternating currents	392,090	Oct. 30	2713	737	45	563
Zipernowsky, Karl, Buda-Pesth, and M. Déri, Vienna, Austria-Hungary. Regulating alter- nate-current electric generators	375,910	Jan. 3	242	66	42	51
Zistel, Oscar, Sandusky, Ohio. Scraper attachment for vehicle-steps	384,665	June 19	1235	326	43	1372
Zitzmann, George, Millvale, Pa. Automatic method of draining coal-mines	381,200	Apr. 17	1367	365	43	281
Zobel, Otto, Schmalkalden, Germany. Friction-gear	387,198	July 31	2778	726	44	565
Zoeller, Edward, Louisville, Ky. Drum	388,806	Aug. 28	2445	659	44	1062
Zonca, Gaudenzio, and G. Bella, Venice, Italy. Grinding-mill	384,949	June 19	1650	429	43	1451
Zook, Jacob M. (See Mull, William H., assignor.)						
Zouck, Peter G., Glen Morris, Md. Brick cutting and sanding machine	385,398	July 3	89	25	44	19
Zuber, Heinrich R., Berlin, Germany. Manufacturing artificial stone	391,830	Oct. 30	2316	628	45	485
Zubler, Alfred, Buffalo, N. Y. Stove-leg caster	375,790	Jan. 3	94	28	42	22
Zucker & Levett Chemical Company. (See Mallett, Francis M., assignor.)						
Zugalla, Albert H., Brooklyn, N. Y. Paper box	381,050	Apr. 10	1138	304	43	229
Zürcher, Max A., Phoenixville, Pa. Frame for railway-cars	384,225	June 5	568	156	43	1231
Zwicker, Julius G., Austin, Minn. Fountain ruling-pen	394,634	Dec. 18	1364	357	45	1352
Zwietusch, Otto, Milwaukee, Wis. Soda-water apparatus	391,674	Oct. 23	2079	563	45	428

# ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Name, residence, and design.	No.	Date.	Official Gazette.	
			Volume.	Page.
Abraham, John D., Cincinnati, Ohio. Washout water-closet	18,594	Sept. 11	44	1190
Adams, Peter. (See Shepard and Adams.)				
Alkou, H. A. (See Crabtree, Thomas A., assignor.)				
Andrews & Company, A. H. (See Teufel, Charles, assignor.)				
Andrews, Willard J., assignor of one-half to J. U. Musick, St. Louis, Mo. Cooking-stove	18,263	Apr. 24	43	394
Arnold, Fred H., New Haven, Conn. Veteran's grave designator	18,517	Aug. 14	44	702
Atkins, James C., Milton, Iowa. Photographic vignette	18,475	July 24	44	346
Atkinson, George F., San Francisco, Cal. Pincushion	18,583	Sept. 4	44	1072
Atterbury & Co. (See Walter, William G., assignor.)				
Atterbury, Thomas B., Pittsburg, Pa. Bottle or jar	{ 18,218 } to { 18,220 }	Apr. 3	43	2
Atterbury, Thomas B., Pittsburg, Pa. Mustard-cup	18,457	July 17	44	236
Atterbury, Thomas B., Pittsburg, Pa. Jar	18,685	Oct. 16	45	238
Atterbury, Thomas B., Pittsburg, Pa. Jar	18,714	Nov. 6	45	594
Atwater, Richard M., Millville, N. J., assignor to J. Whitall, J. Mickle, C. A. Tatum, J. M. Whitall, J. W. Nicholson, and F. M. Underhill, Philadelphia, Pa. Bottle	18,021	Jan. 24	42	300
Atwater, Richard M., Millville, N. J., assignor to J. and J. M. Whitall, J. W. Nicholson, Philadelphia, Pa., C. A. Tatum, F. M. Underhill, New York, N. Y., and J. Mickle, Millville, N. J. Bottle	18,221	Apr. 3	43	2
Ayres, G. Ralston, assignor to W. M. and L. H. Ayres, Philadelphia, Pa. Horse-blanket	18,485	July 31	44	452
Ayres, Louis H., et al. (See Ayres, G. Ralston, assignor.)				
Ayres, William M., et al. (See Ayres, G. Ralston, assignor.)				
Bailey, Charles J., Boston, Mass. Bath-brush	18,222	Apr. 3	43	2
Baker, Thomas A., assignor to T. B. Clark & Co., Honesdale, Pa. Glassware	18,621	Sept. 25	44	1403
Ball, Dayton, Albany, N. Y. Paper-weight	18,064	Feb. 21	42	727
Ballin, G. & J. (See Wiesen, Carl, assignor.)				
Bannatyne, Archibald, assignor to Waterbury Clock Company, Waterbury, Conn. Clock-dial	18,264	Apr. 24	43	394
Bannatyne, Archibald, assignor to Waterbury Clock Company, Waterbury, Conn. Clock-dial	18,299	May 8	43	636
Bannatyne, Archibald, assignor to Waterbury Clock Company, Waterbury, Conn. Clock-dial	{ 18,306 } { 18,307 }	May 15	43	759
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Surface ornamentation of builders' hardware	18,584	Sept. 4	44	1072
Barnard, Gates H., New York, N. Y. Collar	18,529	Aug. 21	44	826
Barnhart, Alson E., et al. (See Guildenstine, Julius, assignor.)				
Barnhart, Alson E., et al. (See Hoyer, Charles E., assignor.)				
Barnhart, Arthur M., et al. (See Guildenstine, Julius, assignor.)				
Barnhart, Arthur M., et al. (See Hoyer, Charles E., assignor.)				
Barnhart, Arthur M., assignor to Barnhart Bros. & Spindler, Chicago, Ill. Type	18,035	Feb. 7	42	494
Barnhart Bros. & Spindler. (See Barnhart, Arthur M., assignor.)				
Barnhart Bros. & Spindler. (See Hoyer, Charles E., assignor.)				
Barnhart Bros. & Spindler. (See Lanschke, Ernst, assignor.)				
Barnhart, Warren, Chicago, Ill. Type	18,175	Mar. 13	42	1066
Barr, William H., assignor to A. J. Beatty & Sons, Steubenville, Ohio. Jar	{ 18,223 } to { 18,225 }	Apr. 3	43	2
Bartel, Otto, New York, N. Y. Clock-dial	{ 18,282 } { 18,283 }	May 1	43	514
Bartlett, Charles L., Utica, N. Y. Holder for tooth-powder	18,018	Jan. 17	42	204
Bascom, George C., Lansingburg, assignor to J. S. & M. Peckham, Utica, N. Y. Range or cooking-stove	18,472	July 17	44	236
Baum, Siegmund, et al. (See Nollner, Hugo, assignor.)				
Bawo, Francis H., et al. (See Breull, Eugene, assignor.)				
Beach, William W., New York, N. Y. Bottle and spreading tip	18,498	Aug. 7	44	572
Beale, Merton F., Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	18,559	Aug. 28	44	948
Beardsley, Lester C., Cleveland, Ohio. Campaign-torch	18,611	Sept. 18	44	1296
Beardsley, Lester C., Cleveland, Ohio. Campaign-torch	18,715	Nov. 6	45	594
Beatty, James B., Brooklyn, N. Y. Fan or similar article	{ 18,499 } { 18,500 }	Aug. 7	44	572
Beatty & Sons, Alexander J. (See Barr, William H., assignor.)				
Beck, Robert M., Chambersburg, Pa. Engine-frame	17,995	Jan. 3	42	2
Beckwith, Walter C., assignor to Bevington Signal Company, Fostoria, Ohio. Lantern-body	{ 18,716 } { 18,717 }	Nov. 6	45	594
Beecher, Frank H., et al. (See Murphy, John M., assignor.)				
Beeston, Henry, Philadelphia, Pa. Cuspidor	18,259	Apr. 17	43	254
Behrend, Jacob, Philadelphia, Pa. Hat-rack	18,691	Oct. 23	45	350
Beiermeister, Frederick, Jr., Troy, N. Y. Collar	18,726	Nov. 13	45	714
Benedict, George H., New York, N. Y. Package-bolder	18,036	Feb. 7	42	494
Benton, Linn B., Milwaukee, Wis. Font of printing-type	18,692	Oct. 24	45	350
Bento, Linn B., Milwaukee, Wis. Type	18,775	Dec. 4	45	1072
Bevington Signal Company. (See Beckwith, Walter C., assignor.)				
Billingham, Francis, Brooklyn, N. Y. Lamp or lantern body	{ 18,200 } { 18,201 }	Mar. 27	42	1294
Binns, Leedham, assignor to E. H. Godshulk, Philadelphia, Pa. Cord	18,244	Apr. 10	43	120
Bishop, Clement B., assignor to B. Frishmuth, Philadelphia, Pa. Spectacle-frame	18,727	Nov. 13	45	714
Bissell Carpet Sweeper Company. (See Drew, Walter J., assignor.)				
Bloomingdale, Emanuel W., New York, N. Y. Bottle	18,718	Nov. 6	45	594
Bond, Joseph. (See Pierce and Bond.)				
Booth, John E., Bangor, Me. Ornamentation of moccasins or shoes	18,186	Mar. 20	42	1172
Brackett, Frederick, Washington, D. C. Calendar	18,065	Feb. 21	42	727

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Bradley & Hubbard Manufacturing Company. (See Evarts, Charles A., assignor.)				
Bradley & Hubbard Manufacturing Company. (See Patitz, Albert, assignor.)				
Bradley, J. Harley. (See Packer, John F., assignor.)				
Branford Lock Works. (See Village, Thomas, assignor.)				
Brehmer, Henry, assignor to D. W. Bruce, New York, N. Y. Font of type	18,560	Aug. 28	44	948
Brehmer, Henry, assignor to D. W. Bruce, New York, N. Y. Font of type	18,595	Sept. 11	44	1190
Breuil, Eugène, Limoges, France, assignor to F. H. Bawo and C. T. Dotter, Brooklyn, N. Y. Handle for dishes	18,006	Jan. 10	42	100
Bridge and Beach Manufacturing Company. (See Seifert and Nellis, assignors.)				
Bridge and Beach Manufacturing Company. (See Smith and Seifert, assignors.)				
Bridge and Beach Manufacturing Company. (See Wilkinson, William H., assignor.)				
Brogan, Anthony D., and A. M. Malloch, Glasgow, county of Lanark, Scotland. Surface ornamentation of glass	18,705	Oct. 30	45	464
Brogan, Anthony D., and A. M. Malloch, Glasgow, county of Lanark, Scotland. Surface ornamentation of glass	18,738	Nov. 20	45	838
Bromley & Sons, John. (See Fox, George B., assignor.)				
Bromley & Sons, John. (See Pegel, Julius, assignor.)				
Bromley & Sons, John. (See Petzold, Adolph, assignor.)				
Bromley & Sons, John. (See Weiss, Albert, assignor.)				
Brooklyn Watch Case Company. (See Parsons, Lewis A., assignor.)				
Brophy, James E., and W. E. Harvey, Washington, D. C. Badge or banner	18,486	July 31	44	452
Brown, John W., Jr., Philadelphia, Pa., assignor to Enterprise Manufacturing Company, of Pennsylvania. Frame of a cutting or forcing press	18,359	June 5	43	1120
Brown, John W., Jr., Philadelphia, Pa., assignor to Enterprise Manufacturing Company, of Pennsylvania. Frame of a cutting or forcing press	18,706	Oct. 30	45	464
Brown, Virgil K., Bryan, Ohio. Match-safe, &c.				
Bruce, David W. (See Brehmer, Henry, assignor.)				
Bruce, David W. (See Guildenstine, Julius, assignor.)				
Bruce, David W. (See Rathven, Edwin C., assignor.)				
Buegger, Abraham, Jr., G. E. Preston, and C. Hicks, assignors to E. B. Preston, Chicago, Ill. Hose-carriage body	18,612	Sept. 18	44	1296
Bryant, Alva, <i>et al.</i> (See Lockwood, James F., assignor.)				
Bryant, Edson L., assignor to Wallace & Sons, Ansonia, Conn. Drawer-pull	{ 18,644 } { 18,645 }	Oct. 2	45	2
Bryce, James M., Philadelphia, Pa., assignor to E. A., H. L., W. R., and E. A. Greene, Jr., Riverside, R. I. Handkerchief or banner	18,487	July 31	44	452
Buck, Myron M., St. Louis, Mo. Head-light	18,719	Nov. 6	45	594
Buckwalter & Co. (See McLaughlin, John K., assignor.)				
Buermann, August, Newark, N. J. Spur	18,187	Mar. 20	42	1172
Buhlmann, Georg, and J. Peters, Berlin, Germany, assignors to Dieckerhoff, Raffloer & Co., New York, N. Y. Dress-trimmings	18,646	Oct. 2	45	2
Bullock, Edwin K., Pawtucket, R. I. Spool-cabinet	18,388	June 19	43	1351
Burdick, Charles L., Kansas City, Mo. Air-brush case	18,329	May 22	43	890
Burgess, William B., Brooklyn, N. Y. Wall-paper	{ 18,647 } { 18,648 }	Oct. 2	45	2
Burgess, William B., Brooklyn, N. Y. Wall-paper	18,693	Oct. 23	45	350
Butler Hard Rubber Company. (See Witteck, Paul, assignor.)				
Butterick Publishing Company. (See Duke, Henrietta F., assignor.)				
Butterick Publishing Company. (See Jenkins, Etta L., assignor.)				
Butterick Publishing Company. (See Kavanagh, Mary V., assignor.)				
Butterick Publishing Company. (See Kent, Minnie B., assignor.)				
Butterick Publishing Company. (See Moran, Ellen, assignor.)				
Butterick Publishing Company. (See Roys, Lizzie, assignor.)				
Butterick Publishing Company. (See Sheils, Catherine, assignor.)				
Butterick Publishing Company. (See Sheils, Jennie, assignor.)				
Butterick Publishing Company. (See Soderholm, Louise, assignor.)				
Butterick Publishing Company. (See Swain, Catherine, assignor.)				
Butterick Publishing Company. (See Turner, Mary, assignor.)				
Button, Charles P., Milwaukee, Wis. Glove	18,417	July 3	44	2
Button, Conyers, <i>et al.</i> (See Goodman, Samuel N., assignor.)				
Button, Conyers, <i>et al.</i> (See Upton, Gabriel, assignor.)				
Byers, John, Brooklyn, assignor to Corliss Bros. & Co., Troy, N. Y. Collar	18,518	Aug. 11	44	702
Cameron, Archibald, <i>et al.</i> (See Moniot, Achille, assignor.)				
Captain, William F., assignor to Marder, Luse & Co., Chicago, Ill. Type	18,508	Aug. 7	44	572
Captain, William F., assignor to Marder, Luse & Co., Chicago, Ill. Font of printing-type	18,613	Sept. 18	44	1296
Captain, William F., assignor to Marder, Luse & Co., Chicago, Ill. Type	18,671	Oct. 9	45	130
Carlberg, Carl J., Falun, Kans. Cultivator knife or shovel	18,596	Sept. 11	44	1190
Carmelha, Oliver, Ottawa, Ill. Torch-lamp	18,585	Sept. 4	44	1072
Carr, Rufus B., assignor of one-half to E. Howard Watch and Clock Company, Boston, Mass. Time-piece characters	18,488	July 31	44	452
Cascaden, George S., Phoenixville, Pa. Checkrein-hook	18,561	Aug. 28	44	948
Cascaden, George S., Phoenixville, Pa. Harness ornament	18,597	Sept. 11	44	1190
Case Threshing Machine Company, J. L. (See Dingee, William W., assignor.)				
Channon-Emery Stove Company. (See Gobeille, Joseph L., assignor.)				
Channon-Emery Stove Company. (See Schermerhorn and Weller, assignors.)				
Chappell, Chase, Maxwell & Co. (See Einsfeld, John, assignor.)				
Chase, William D., Harkensack, N. J. Chewing-gum	18,300	May 8	43	636
Cheney Brothers. (See Fenner, Elizabeth A., assignor.)				
Cheney Brothers. (See Miller, Bettie H., assignor.)				
Chicago Hardware Manufacturing Company. (See Wells, George J., assignor.)				
Chichester, Lemuel A., Phoenicia, assignor to Heywood Bros. & Co., New York, N. Y. Chair-back	18,476	July 24	44	346
Christie, John, Halifax, England, assignor to J. Crossley & Sons, New York, N. Y., and London, England. Carpet	18,308	May 15	43	759
Christie, John, Halifax, England, assignor to J. Crossley & Sons, New York, N. Y. Carpet	18,521	Aug. 14	44	702
Clark & Co., T. B. (See Baker, Thomas A., assignor.)				
Clark, Melville, Chicago, Ill. Organ-stop knob	18,330	May 22	43	890
Clarke, Samuel, Child's Mill Works, county of Middlesex, England. Lamp	18,378	June 12	43	1242
Clayton, Henry, Philadelphia, Pa. Lemon-squeezer	18,649	Oct. 2	45	2
Clemence, Louis, West Hoboken, N. J., assignor to Warren, Lang & Co., New York, N. Y. Surface ornamentation of walls	18,562	Aug. 28	44	948
Cleveland Burial Case Company. (See Leonard, Dennis, assignor.)				
Clifford, James B., San Francisco, Cal. Bonnet and millinery stand	18,379	June 12	43	1242
Coffin, Francis A., Indianapolis, Ind. Writing desk	18,111	Feb. 28	42	832
Coffin, Francis A., Indianapolis, Ind. Cabinet-desk	18,112	Feb. 28	42	832
Coffin, Francis A., Indianapolis, Ind. Cabinet-desk	18,153	Mar. 6	42	965
Coffin, Francis A., Indianapolis, Ind. Cabinet-desk	18,176	Mar. 13	42	1066

*Alphabetical list of patentees of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Coffin, Francis A., Indianapolis, Ind. Writing-desk.....	18,177	Mar. 13	42	1066
Coffin, Francis A., Indianapolis, Ind. Cabinet-desk.....	18,178	Mar. 13	42	1066
Coffin, Francis A., Indianapolis, Ind. Writing-desk.....	18,226	Apr. 3	43	2
Coffin, Francis A., Indianapolis, Ind. Cabinet-desk.....	18,227	Apr. 3	43	2
Colchester Rubber Company. (See Watkinson, George, assignor.)				
Collins, Timothy J., assignor of two-thirds to J. R. B. Ransom and T. F. Randolph, Toledo, Ohio. Barber's dressing-case.....	18,022	Jan. 24	42	300
Consumers Gas Saving and Inspection Company. (See Martin, Charles T., assignor.)				
Cook, Frank E. (See Hensel, Valetton, and Cook.)				
Cooke, Daniel, Camden, N. J. Toy.....	18,489	July 31	44	452
Cooper, Charles H., New York, N. Y. Banner, &c.....	18,598	Sept. 11	44	1190
Co-Operative Foundry Company. (See King, Edward J., assignor.)				
Co-Operative Foundry Company. (See King and Wilkinson, assignors.)				
Co-Operative Foundry Company. (See Wilkinson, William H., assignor.)				
Cerbin, P. & P. (See Barkentin, George S., assignor.)				
Corliss Bros. & Co. (See Byers, John, assignor.)				
Cosby, Edmond B., Rogers, Tex. Smoothing-iron.....	18,694	Oct. 23	45	350
Cottle, Shubael, New York, N. Y. Button back.....	18,331	May 22	43	890
Cottle, Shubael, New York, N. Y. Bracelet.....	18,739	Nov. 20	45	838
Cox, Arthur W., Ballard Vale, Mass. Combined knife and fork.....	18,776	Dec. 4	45	1072
Cox Stove Company, Abram. (See Rankin, Thomas I., assignor.)				
Craltree, Thomas A., assignor to J. P. Greeley, Bangor, Me., and H. A. Alkon, Boston, Mass. Card or letter rack.....	18,519	Aug. 14	44	702
Crarv, William P., New York, N. Y. Bottle.....	18,520	Aug. 14	44	702
Craus, Henry S., Mount Vernon, assignor to J. Menahan & Co., New York, N. Y. Purse or bag frame.....	18,477	July 24	44	346
Crawford, Eugene A., Pawtucket, R. I. Badge.....	18,407	June 26	43	1460
Crisson, George A., Philadelphia, Pa. Upholstery fabric.....	{ 18,418 } { 18,419 }	July 3	44	2
Crossley & Sons, John. (See Christie, John, assignor.)				
Crossley & Sons, John. (See Marchetti, Giulio, assignor.)				
Culbert, Archibald and J. L., New York, N. Y. Front for mail-boxes.....	18,473	July 17	44	236
Culbert, John L. (See Culbert, Archibald and J. L.)				
Culver, John M., Newburyport, Mass. Handle for spoons and like articles.....	18,458	July 17	44	236
Curtice, Simeon G., Rochester, N. Y. Top for cans, jars, &c.....	18,622	Sept. 25	44	1403
Davenport, Fred, Avondale, Ohio. Box.....	18,623	Sept. 25	44	1403
Davis, Benjamin, Brooklyn, assignor to L. Strans & Sons, New York, N. Y. Ornamentation of glassware.....	18,791	Dec. 11	45	1196
Davis, Augustus P., Pittsburg, Pa. Button.....	18,740	Nov. 20	45	838
Davis, Clarence L., East Saginaw, Mich. Fan.....	18,792	Dec. 11	45	1196
Davis, John A., Springfield, Ohio. Chamber-vessel.....	18,260	Apr. 17	43	254
Davis, Julius H., Philadelphia, Pa. Ornamentation of a spoon, fork, or knife handle.....	18,459	July 17	44	236
Davison, Joseph K., Philadelphia, Pa. Badge.....	18,729	Nov. 13	45	714
Dawson, Henry G. and W. R., Chicago, Ill. Mantel.....	18,741	Nov. 20	45	838
Dawson, William R. (See Dawson, Henry G. and W. R.)				
De Mooy, John, Jr., assignor to Taylor & Boggis Foundry Company, Cleveland, Ohio. Lamp-stove	18,624	Sept. 25	44	1403
Detroit Steam Radiator Company. (See Hodges, Charles H., assignor.)				
Detroit Steam Radiator Company. (See Hodges, Henry C., assignor.)				
Dieckerhoff, Radloer & Co. (See Buhlmann and Peters, assignors.)				
Dingee, William W., assignor to J. I. Case Threshing Machine Company, Racine, Wis. Casing for thrashing-machines.....	18,793	Dec. 11	45	1196
Dobson, J. & J. (See Fawcett, Henry, assignor.)				
Dominick, Alexander, New York, N. Y. Ornamentation of handles for spoons, &c.....	18,614	Sept. 18	44	1296
Dorman Brothers. (See Righter, Oscar, assignor.)				
Dotter, Charles T., et al. (See Breuil, Eugene, assignor.)				
Doty, Albert J., assignor to Goodwin Gas Stove and Meter Company, Philadelphia, Pa. Gas-stove.	18,007	Jan. 10	42	100
Drew, Walter J., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper casing.....	18,360	June 5	43	1120
Drew, Walter J., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper casing.....	18,380	June 12	43	1242
Drew, Walter J., assignor to Bissell Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper casing.....	18,408	June 26	43	1460
Dryfoos & Co., L. (See Hildt, August, assignor.)				
Dubey, Edward A., Brooklyn, N. Y. Money-box.....	18,686	Oct. 16	45	238
Duke, Henrietta F., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's coat.....	18,008	Jan. 10	42	100
Duke, Henrietta F., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,023	Jan. 24	42	360
Duke, Henrietta F., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	{ 18,245 } { 18,246 }	Apr. 10	43	120
Duke, Henrietta F., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,284	May 1	43	514
Duke, Henrietta F., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Basque.	18,369	June 19	43	1351
Duke, Henrietta F., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's blouse.....	18,400	July 17	44	236
Dunham, Buckley & Co. (See Schoonmaker, Annie V., assignor.)				
Durell, Frank H., Bay City, Mich. Advertising-picture frame.....	18,265	Apr. 21	43	394
Durphy, Charles H., Chicago, Ill. Advertising-card.....	18,509	Aug. 7	44	572
Dyar, John B., Detroit, Mich. Radiator ornamentation.....	18,440	July 10	44	112
Dyar, John B., Detroit, Mich. Radiator.....	18,615	Sept. 18	44	1296
Eagle Pencil Company. (See Kraus, Samuel, assignor.)				
Ebbets, Arthur M., San Francisco, Cal. Badge.....	18,730	Nov. 13	45	714
Eberhard, George F., Cleveland, Ohio. Buckle.....	{ 18,066 } { 18,067 }	Feb. 21	42	727
Eberhard Manufacturing Company. (See Howe, Eugene L., assignor.)				
Edmonston, Elizabeth, Newburg, N. Y. Picture-frame.....	18,501	Aug. 7	44	572
Eichel, Jacob, Evansville, Ind. Cane-head.....	18,540	Aug. 21	44	826
Eicke, Edward, Hoboken, N. J. Base for plumes.....	18,599	Sept. 11	44	1190
Einsfield, John, assignor to Chappell, Chase, Maxwell & Co., Oneida, N. Y. Burial-casket.....	18,009	Jan. 10	42	100
Elder, David D., Philadelphia, Pa. Wall-paper.....	18,742	Nov. 20	45	838
Emerson, William R., Boston, Mass., assignor to Meyer-Suiffen Company, (limited,) New York, N. Y. Water-closet bowl and standard.....	18,441	July 10	44	112
Enterprise Manufacturing Company. (See Brown, John W., Jr., assignor.)				
Evarts, Charles A., assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Lamp-burner.....	18,202	Mar. 27	42	1294

*Alphabetical list of patentees of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Faber, Eberhard. (See Osborn, Frederick G., assignor.)				
Fabnestock, James D., Cincinnati, Ohio. Badge	18,502	Aug. 7	44	572
Fairchild, Le Roy W., New York, N. Y. Flask	18,777	Dec. 4	45	1072
Fairchild, Le Roy W., New York, N. Y. Match-box	18,778	Dec. 4	45	1072
Fairchild, Le Roy W., New York, N. Y. Cigarette-case	18,779	Dec. 4	45	1072
Fairchild, Le Roy W., New York, N. Y. Match-box	{ 18,780 } { 18,781 }	Dec. 4	45	1072
Fairchild, Le Roy W., New York, N. Y. Match-box	18,794	Dec. 11	45	1196
Fales, Amos, Rock Fall, Conn. Bench-plane cutter	18,381	June 12	43	1242
	{ 17,996 } { 17,999 }			
Fawcett, Henry, Kidderminster, England, assignor to J. & J. Dobson, Philadelphia, Pa. Carpet	to	Jan. 3	42	2
Fawcett, Henry, Kidderminster, England, assignor to J. & J. Dobson, Philadelphia, Pa. Carpet	18,010	Jan. 10	42	100
Fenner, Elizabeth A., South Orange, assignor to Cheney Brothers, South Manchester, N. J. Textile fabric	{ 18,000 } { 18,001 }	Jan. 3	42	2
Finckel, Martin L., et al. (See Goodman, Samuel N., assignor.)				
Finckel, Martin L., et al. (See Upton, Gabriel, assignor.)				
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 18,541 } to { 18,546 }	Aug. 21	44	826
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 18,563 } to { 18,565 }	Aug. 28	44	948
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	18,625	Sept. 25	44	1403
	{ 18,048 } to { 18,058 }			
Folsom, James L., Brooklyn, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet	to { 18,068 }	Feb. 14	42	618
	{ 18,068 } to { 18,097 }			
Folsom, James L., Brooklyn, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet	to { 18,124 }	Feb. 21	42	727
	{ 18,124 } to { 18,152 }			
Folsom, James L., Brooklyn, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet	to { 18,228 }	Mar. 6	42	965
	{ 18,228 } to { 18,234 }			
Folsom, James L., Brooklyn, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet	to { 18,309 }	Apr. 3	43	2
Foster, Adelbert M., Chicago, Ill. Bottle	18,309	May 15	43	759
Foster, Freling C., assignor to Union Type Foundry, Chicago, Ill. Font of printing-type	{ 18,626 } { 18,627 }	Sept. 25	44	1403
Foster Stove Company. (See Gobeille, Joseph L., assignor.)				
Fox, George B., assignor to J. Bromley & Sons, Philadelphia, Pa. Rug	18,011	Jan. 10	42	100
Frazier, Fredrick, Syracuse, N. Y. Trace-carrier	18,794	Nov. 6	45	594
French, La Martine, Chicago, Ill. Piano-gover	18,203	Mar. 27	42	1294
Frey, John A., assignor to C. Riessner and Company, New York, N. Y. Top for incased vessels	18,461	July 17	44	236
Frick, John, New York, N. Y. Button	18,687	Oct. 16	45	238
Frishmuth, Benoni. (See Bishop, Clement B., assignor.)				
Fuchs, Gustav, Chicago, Ill. Advertising-staff	18,188	Mar. 20	42	1172
Gager, Oliver A. (See Gérard, Émile, assignor.)				
Garet, Émile, Hoboken, N. J., assignor to Merklen Brothers, New York, N. Y. Furniture-caster	18,266	Apr. 24	43	394
Garton, William M., assignor to W. W. B. C. J. B., and J. R. Swindell, Baltimore, Md. Bottle	18,390	June 19	43	1351
Gérard, Émile, Limoges, France, assignor to O. A. Gager, Brooklyn, N. Y. Plate or dish	18,707	Oct. 30	45	464
Gérard, Émile, Limoges, France, assignor to O. A. Gager, Brooklyn, N. Y. Surface ornamentation of dishes	18,735	Nov. 6	45	594
Geyer, Andrew, Cambridge, Mass. Nursing-bottle	18,420	July 3	44	2
Gideon, Francis M., and D. Rhodes, Washington, D. C. Handkerchief	18,462	July 17	44	236
Giesecke, Georg F., Leipsic, Saxony, Germany. Type	{ 18,751 } { 18,752 }	Nov. 27	45	949
Glaser, Kohn & Co. (See Kohn, Alfred, assignor.)				
Gobeille, Joseph L., Cleveland, assignor to Foster Stove Company, Ironton, Ohio. Cooking stove or range	18,012	Jan. 10	42	100
Gobeille, Joseph L., Cleveland, Ohio, assignor to Channon-Emery Stove Company, Quincy, Ill. Cooking-stove	18,332	May 22	43	890
Gobeille, Joseph L., Cleveland, Ohio, assignor to Channon-Emery Stove Company, Quincy, Ill. Heating-stove	18,333	May 22	43	890
Gobeille, Joseph L., Cleveland, Ohio, assignor to Channon-Emery Stove Company, Quincy, Ill. Cooking-stove	18,334	May 22	43	890
Gobeille, Joseph L., Cleveland, assignor to A. T. Nye & Son, Marietta, Ohio. Heating-stove	18,731	Nov. 13	45	714
Godshulk, Edward H. (See Binns, Leedham, assignor.)				
Goff, Isaac L., Providence, R. I. Button	18,628	Sept. 25	44	1403
Goodman, Isaac, assignor to himself, A. Kaufman, B. Strouse, W. Kaufman, and S. C. Klopfer, Philadelphia, Pa. Trimming	18,033	Jan. 31	42	386
Goodman, Samuel N., assignor to C. Button and M. L. Finckel, Philadelphia, Pa. Knit fabric	18,600	Sept. 11	44	1190
	{ 18,672 } to { 18,674 }	Oct. 9	45	130
Goodman, Samuel N., assignor to C. Button and M. L. Finckel, Philadelphia, Pa. Knitted fabric				
Goodwin Gas Stove and Meter Company. (See Doty, Albert J., assignor.)				
Graff, Jacob A., Brooklyn, N. Y. Toy bank	18,352	May 29	43	987
Grant, Lorenzo D., Lansingburg, N. Y. Brush	18,261	Apr. 17	43	254
Greeley, J. P. (See Crabtree, Thomas A., assignor.)				
Green, Freman A., Hamilton, Ontario, Canada. Memorial tablet	18,019	Jan. 17	42	204
Greene, Edward A., et al. (See Bryce, James M., assignor.)				
Greene, Henry L., et al. (See Bryce, James M., assignor.)				
Greene, William R., et al. (See Bryce, James M., assignor.)				
Greenfield, Nelson. (See Schwarzschild and Greenfield.)				
Greenwood, Peter F., Philadelphia, Pa. Horseshoe	18,215	Mar. 27	42	1294
Griggs, A. Irving, New York, N. Y. Ornamentation of sheet metal	18,391	June 19	43	1352
Grissold, Stephen M., Brooklyn, N. Y. Jewelry	18,601	Sept. 11	44	1190
Guildestine, Julius, New York, N. Y., assignor to A. M. and A. E. Barnhart, Chicago, Ill. Type	18,013	Jan. 10	42	100
Guildestine, Julius, Roselle, N. J., assignor to D. W. Bruce, New York, N. Y. Font of type	18,602	Sept. 11	44	1190
Gurney, Caleb S., Kennebunk, Me. Business certificate	18,247	Apr. 10	43	120
	{ 18,547 } { 18,548 }	Aug. 21	44	826
Gurney, Edward, Toronto, Ontario, Canada. Hot-water heater				
Hale, Lovett B., Buffalo, N. Y. Dress-making tool	18,463	July 17	44	236



## Alphabetical list of patentees of designs—Continued.

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Haley, William, Beaver Falls, Pa. Basket.....	18,566	Aug. 28	41	948
Hall & Carpenter. (See Stone, Thomas and G. M., assignors.)				
Hall, Zachary T., Philadelphia, Pa. Fine-stopper and collar.....	18,059	Feb. 14	42	618
Hamborg, Ole P., and G. O. Weding, Mankato, Minn. Box.....	18,248	Apr. 10	43	120
Hard & Parsons. (See Pike, William A., assignor.)				
Harkins, Charles H., assignor to Western Brass Manufacturing Company, St. Louis, Mo. Bracket.....	18,814	Dec. 18	45	1324
Harriman, Jeremiah P., Woonsocket, R. I. Ornamentation of knit fabrics.....	{ 18,361 to 18,364 }	June 5	43	1120
Harriman, Jeremiah P., Woonsocket, R. I. Ornamentation of knit fabrics.....	18,382	June 12	43	1242
Hart, Edward H., New York, N. Y. Hat.....	18,503	Aug. 7	44	572
Hartford Carpet Company. (See Felsom, James L., assignor.)				
Hartford Carpet Company. (See Heinigke, Otto, assignor.)				
Hartford Carpet Company. (See Hunt, Henry, assignor.)				
Hartford Carpet Company. (See Sayers, William E., assignor.)				
Harvey, William E. (See Brophy and Harvey.)				
Hauss, David J., Cincinnati, Ohio. Incandescent lamp.....	18,098	Feb. 21	42	727
Hauss, David J., Cincinnati, Ohio. Frame for dynamos.....	18,099	Feb. 21	42	727
Hawkes, Obed C., Birmingham, county of Warwick, England. Beveled glass.....	18,510	Aug. 7	44	572
Hawkes, Obed C., Birmingham, county of Warwick, England. Beveled glass.....	18,549	Aug. 21	44	826
Hawkes, Obed C., Birmingham, county of Warwick, England. Beveled glass.....	{ 18,695 to 18,696 }	Oct. 23	45	350
Hawkes, Thomas G., Corning, N. Y. Ornamentation of glassware, &c.....	{ 18,267 to 18,268 }	Apr. 24	43	394
Hawkes, Thomas G., Corning, N. Y. Ornamental border for glassware, &c.....	18,301	May 8	43	636
Hays, William H., Chicago, Ill. Halter D.....	18,753	Nov. 27	45	949
Heimann, Julius, New York, N. Y. Helmet.....	18,474	July 17	44	236
Heinigke, Otto, New Utrecht, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	{ 18,154 to 18,155 }	Mar. 6	42	965
Heinigke, Otto, New Utrecht, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	18,235	Apr. 3	43	2
Heinigke, Otto, New Utrecht, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	18,392	June 19	43	1352
Heisel, Charles T., Cleveland, Ohio. Heating-stove.....	18,179	Mar. 13	42	1066
Heller, Charles J., Philadelphia, Pa. Badge for hats.....	18,249	Apr. 10	43	120
Henderson, Alexander T., Detroit, Mich. Gas-stove.....	18,795	Dec. 11	45	1196
Hensel, Colladay Company. (See Hensel, Valetton, and Cook, assignors.)				
Hensel, George S., L. D. Valetton, and F. E. Cook, assignors to Hensel, Colladay Company, Philadelphia, Pa. Fringe.....	{ 18,365 to 18,366 }	June 5	43	1120
Hensel, George S., L. D. Valetton, and F. E. Cook, assignors to Hensel, Colladay Company, Philadelphia, Pa. Fringe.....	18,383	June 12	43	1242
Hensel, George S., L. D. Valetton, and F. E. Cook, assignors to Hensel, Colladay Company, Philadelphia, Pa. Fringe.....	18,464	July 17	44	236
Heyer, Charles E., Chicago, Ill. Font of printing-type.....	18,024	Jan. 24	42	300
Heyer, Charles E., assignor to A. M. and A. E. Barnhart, Chicago, Ill. Type.....	18,037	Feb. 7	42	494
Heyer, Charles E., assignor to Barnhart Bros. & Spindler, Chicago, Ill. Font of printing-type.....	18,156	Mar. 6	42	965
Heyer, Charles E., assignor to Barnhart Bros. & Spindler, Chicago, Ill. Type.....	18,250	Apr. 10	43	120
Heyer, Charles E., assignor to Barnhart Bros. & Spindler, Chicago, Ill. Font of combination type ornaments.....	18,225	May 1	43	514
Heyer, Charles E., assignor to Barnhart Bros. & Spindler, Chicago, Ill. Font of combination type ornaments.....	18,442	July 10	44	112
Heyer, Charles E., assignor to Barnhart Bros. & Spindler, Chicago, Ill. Font of printing-type.....	18,603	Sept. 11	44	1190
Heywood Bros. & Co. (See Chichester, Lemuel A., assignor.)				
Hicks, Charles. (See Bruegger, Preston, and Hicks.)				
Highland Slate Manufacturing Company. (See Stearns and Lewis, assignors.)				
Hildt, August, assignor to L. Dryfoos & Co., New York, N. Y. Ornamentation of skirts.....	18,100	Feb. 21	42	727
Hill, Eugene H., assignor to Schofield, Mason & Co., Philadelphia, Pa. Carpet.....	{ 18,038 to 18,039 }	Feb. 7	42	494
Hill, Eugene H., assignor to Schofield, Mason & Co., Philadelphia, Pa. Carpet.....	18,113	Feb. 28	42	832
Hill, Harry W., Cleveland, Ohio. Frame or support for friction-clutches.....	18,443	July 10	44	112
Hill, Joseph B., Philipsburg, Pa. Dish.....	18,697	Oct. 23	45	350
Hiller, Hugo L., New York, N. Y. Slipper-vamp.....	18,384	June 12	43	1242
Hine, Ida C., New York, N. Y. Button.....	18,743	Nov. 20	45	833
Hinrichs, Louis, New York, N. Y. Lamp-shade.....	18,465	July 17	44	236
Hinrichs, Louis, New York, N. Y. Pitcher.....	18,466	July 17	44	236
Hinrichs, Louis, New York, N. Y. Lamp-shade.....	18,504	Aug. 7	44	572
Hipkins, Stephen, Jr., Martin's Ferry, Ohio. Tumbler or other glassware.....	18,650	Oct. 2	45	2
Hobler, Peter, Chicago, Ill. Hopper for grinding-mills.....	18,629	Sept. 25	44	1403
Hobler, Peter, Chicago, Ill. Base for grinding-mills.....	18,698	Oct. 23	45	350
Hodges, Charles H., assignor to Detroit Steam Radiator Company, Detroit, Mich. Radiator ornamentation.....	18,311	May 15	43	760
Hodges, Charles H., assignor to Detroit Steam Radiator Company, Detroit, Mich. Radiator.....	{ 18,312 to 18,313 }	May 15	43	760
Hodges, Charles H., assignor to Detroit Steam Radiator Company, Detroit, Mich. Radiator ornamentation.....	18,314	May 15	43	760
Hodges, Henry C., assignor to Detroit Steam Radiator Company, Detroit, Mich. Radiator.....	18,310	May 15	43	760
Holmes & Edward Silver Company. (See Klingel, Robert H., assignor.)				
Horan, Henry, East Orange, N. J., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.....	{ 18,522 to 18,524 }	Aug. 14	44	702
Horan, Henry, East Orange, N. J., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.....	{ 18,567 to 18,569 }	Aug. 28	44	948
Horan, Henry, East Orange, N. J., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.....	{ 18,630 to 18,632 }	Sept. 25	44	1403
Horan, Henry, East Orange, N. J., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.....	18,754	Nov. 27	45	949
Housh, Frank E., Brattleborough, Vt. Campaign-card.....	18,550	Aug. 21	44	826
Houston, Ulysses G., Manhattan, Kans. Educational model.....	18,409	June 26	42	1460
Howard, Hiram, Providence, R. I. Badge.....	18,511	Aug. 7	44	572
Howard, Stephen C., Providence, R. I. Badge.....	18,512	Aug. 7	44	572
Howard Watch and Clock Company, E. (See Carr, Rufus B., assignor.)				
Howe, Eugene L., assignor to Eberhard Manufacturing Company, Cleveland, Ohio. Carriage-step.....	18,720	Nov. 6	45	594
Hoyle, Harrison & Kay. (See Kerr, David B., assignor.)				
Huestis, Harvey, Providence, R. I. Setting for jewelry.....	18,633	Sept. 25	44	1403

*Alphabetical list of patentees of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Hunt, Henry, Greenville, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	18,157 to 18,162	Mar. 6	42	965
Hunt, Henry, Greenville, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	18,236	Apr. 3	43	2
Ide & Co., George P. (See Ide, James M., assignor.)				
Ide, James M., assignor to G. P. Ide & Co., Troy, N. Y. Collar.....	18,699	Oct. 23	45	350
Ihlenburg, Herman, assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type.....	18,163	Mar. 6	42	965
Ihlenburg, Herman, assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type.....	18,735	Nov. 13	45	714
Jackson, Austin F., assignor to Reed & Barton Corporation, Taunton, Mass. Spoon or fork handle.....	18,736			
Jackson, Peter H., San Francisco, Cal. Sidewalk dead-light frame.....	18,490	July 31	44	452
Jackson, William W., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type.....	18,286	May 1	43	514
Jackson, William W., assignor to MacKellar, Smiths & Jordan Company, Philadelphia, Pa. Font of printing-type.....	18,164	Mar. 6	42	965
Jacobs, Winthrop L., East Orange, N. J., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.....	18,269	Apr. 24	43	394
Jacobs, Winthrop L., East Orange, N. J., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.....	18,570	Aug. 28	44	948
Jenkins, Etta L., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Girl's street-costume.....	18,634	Sept. 25	44	1403
Jenkins, Etta L., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Infant's cloak.....	18,635			
Jenkins, Etta L., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Sleeve.....	18,287	May 1	43	514
Jones, C. D. (See Jones, James, assignor.)				
Jones, James, assignor to C. D. Jones, Brooklyn, N. Y. Pencil-case.....	18,288	May 1	43	514
Jones, Joseph M., Paris, Ky. Handkerchief.....	18,478	July 24	44	346
Jones, Joseph M., Paris, Ky. Campaign button.....	18,491	July 31	44	452
Juvet, Louis P., Glens Falls, N. Y. Bracelet.....	18,513	Aug. 7	44	572
Kahn & Brothers, F. & L. (See Kahn and Thiem, assignors.)				
Kahn, Lazard, and R. Thiem, assignors to F. & L. Kahn & Brothers, Hamilton, Ohio. Fire-basket.....	18,514	Aug. 28	44	948
Kaldenberg, Frederick R., New York, N. Y. Cane-handle.....	18,571	Mar. 20	42	1172
Kaldenberg, Frederick R., New York, N. Y. Handle for cutlery.....	18,367	June 5	43	1120
Kaufman, Abraham, <i>et al.</i> (See Goodman, Isaac, assignor.)	18,782	Dec. 4	45	1072
Kaufman, William, <i>et al.</i> (See Goodman, Isaac, assignor.)	18,815	Dec. 18	45	1324
Kaufmann, Joseph, New York, N. Y. Cigar lighter and cutter stand.....				
Kavanagh, Mary V., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Miss's coat.....	18,421	July 3	44	2
Kavanagh, Mary V., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's coat.....	18,165	Mar. 6	42	965
Kayser, Julius, New York, N. Y. Glove, &c.....	18,213	Mar. 27	42	1294
Keep, William J., and C. Wipfler, assignors to Michigan Stove Company, Detroit, Mich. Cooking-stoves.....	18,444	July 10	44	112
Keep, William J., and C. Wipfler, assignors to Michigan Stove Company, Detroit, Mich. Heating-stove.....	18,101	Feb. 21	41	727
Keep, William J., and C. Wipfler, assignors to Michigan Stove Company, Detroit, Mich. Heating-stove.....	18,114	Feb. 28	42	832
Keep, William J., and C. Wipfler, assignors to Michigan Stove Company, Detroit, Mich. Cooking-stove.....	18,190	Mar. 20	42	1172
Keep, William J., and C. Wipfler, assignors to Michigan Stove Company, Detroit, Mich. Heating-stove.....	18,191			
Keller, Samuel. (See Reed and Keller.)				
Kelsey, William A., Meriden, Conn. Card.....	18,251	Apr. 10	43	120
Kent, Minnie B., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Miss's costume.....	18,445	July 10	44	112
Kent, Minnie B., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,700	Oct. 23	45	350
Kent, Minnie B., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....				
Kent, Minnie B., assignor to Butterick Publishing Company, (limited,) New York, N. Y. Miss's costume.....	18,259	May 1	43	514
Kerr, David B., assignor to Hoyle, Harrison & Kay, Philadelphia, Pa. Table-cover.....	18,335	May 22	43	890
Keyser, Peter D., Philadelphia, Pa., assignor to P. H. Sheridan, U. S. Army, trustee, Washington, D. C. Badge.....	18,636	Sept. 25	44	1404
Kieseles, John A., New York, N. Y. Cake ornament.....	18,393	June 19	43	1352
King, Edward J., assignor to Co-Operative Foundry Company, Rochester, N. Y. Cooking-stove.....	18,189	Mar. 13	42	1066
King, Edward J., and W. H. Wilkinson, assignors to Co-Operative Foundry Company, Rochester, N. Y. Heating-stove.....	18,302	May 8	43	626
Kingsbury, John, Albany, N. Y. Coupelet-sleigh.....	18,422	July 3	44	2
Kirk, John P., Jr., Austin, Tex. Medal.....	18,237	Apr. 3	43	2
Kittinger, Levi, Akron, Ohio. Match.....	18,270	Mar. 27	42	1294
Klingel, Robert H., Bridgeport, assignor to Holmes & Edwards Silver Company, West Stratford, Conn. Spoon, fork, &c.....	18,204	Apr. 24	43	394
Klingel, Robert H., assignor to Holmes & Edwards Silver Company, Bridgeport, Conn. Handle for spoons, forks, &c.....	18,315	May 15	43	760
Klingel, Robert H., West Stratford, assignor to Holmes & Edwards Silver Company, Bridgeport, Conn. Handle for spoons, forks, &c.....	18,675	Oct. 9	45	130
Klopper, Sylvester C., <i>et al.</i> (See Goodman, Isaac, assignor.)				
Knorpp, Philipp, and G. A. Mayer, Stapleton, N. Y. Christmas-tree ornament.....	18,701	Oct. 23	45	350
Kochs, Theodore A., Chicago, Ill. Arm rest for barbers' chairs.....				
Kohn, Alfred, assignor to Glaser, Kohn & Co., Chicago, Ill. Bottle.....	18,238	Apr. 3	43	2
Koon, Joseph, New Haven, Conn., assignor to L. Schiele & Company, New York, N. Y. Corset.....	18,625	Aug. 14	44	702
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls.....	18,572	Aug. 28	44	948
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls.....	18,573	Aug. 28	44	948
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls.....	18,368	June 5	43	1120
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls.....	18,423	July 3	44	2
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls.....	18,430			
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls.....	18,446	July 10	44	112
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls.....	18,447			

## Alphabetical list of patentees of designs—Continued.

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Koskul, Frederick, Williamsport, Pa. Cornice .....	18,448	July 10	44	112
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls .....	18,449	July 10	44	112
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls .....	18,467	July 17	44	236
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls .....	18,479	July 24	44	346
Koskul, Frederick, Williamsport, Pa. Surface ornamentation of walls .....	{ 18,688 } 18,689	Oct. 16	45	228
Kraemer, Felix, New York, N. Y. Front of piano-cover .....	18,061	Feb. 14	42	613
Krans, Leopold, Birmingham, Conn. Ornamentation of corsets .....	18,651	Oct. 2	45	2
Krans, Samuel, assignor to Eagle Pencil Company, New York, N. Y. Lead-pencil .....	18,492	July 31	44	452
Kranse, Richard, New York, N. Y. Embossed fabric .....	18,664	Sept. 11	44	1190
Krower, Leonard, New Orleans, La. Clock-case .....	18,605	Sept. 11	44	1190
Laron, Frank W., Brooklyn, N. Y. Glove-buttoner .....	18,753	Dec. 4	45	1072
Lanschke, Ernst, assignor to Barnhart Bros. & Spindler, Chicago, Ill. Type .....	18,239	Apr. 3	43	2
Lanschke, Ernst, assignor to Barnhart Bros. & Spindler, Chicago, Ill. Type .....	18,271	Apr. 24	43	394
Lanschke, Ernst, assignor to Barnhart Bros. & Spindler, Chicago, Ill. Font of printing-type .....	18,394	June 19	43	1352
Lanschke, Ernst, assignor to Barnhart Bros. & Spindler, Chicago, Ill. Font of printing-type .....	18,606	Sept. 11	44	1190
Lawson, William, assignor to Waterbury Clock Company, Waterbury, Conn. Clock-dial .....	18,272	Apr. 24	43	394
Lazarus, Augustus A., et al. (See Lipper, Benjamin, assignor.)				
Lees, Arthur, Kidderminster, county of Worcester, England, assignor to Schofield, Mason & Co., Philadelphia, Pa. Carpet .....	18,040	Feb. 7	42	494
Leonard, Dennis, assignor to Cleveland Burial Case Company, Cleveland, Ohio. Casket-handle .....	18,816	Dec. 18	45	1324
Lewis, G. Wilton. (See Stearns and Lewis.)				
Liebmann, Rudolph, New York, N. Y. Button .....	18,450	July 10	44	112
Liebmann, Rudolph, New York, N. Y. Button .....	{ 18,505 } 18,506	Aug. 7	44	572
Liebmann, Rudolph, New York, N. Y. Button .....	18,515	Aug. 7	44	572
Liebmann, Rudolph, New York, N. Y. Campaign button .....	18,574	Aug. 28	44	948
Lipper, Benjamin, assignor to himself, A. A. Lazarus, and I. A. Schwarz, Philadelphia, Pa. Trimming .....	18,253	Apr. 10	43	120
Little, Andrew, New York, N. Y. Type .....	18,755	Nov. 27	45	949
Livingston, Francis M., Newark, N. J. Bridle-front .....	18,480	July 24	44	346
Lockett, Benjamin C., New York, N. Y., assignor to York Manufacturing Company, Saco, Me. Pattern-card .....	18,481	July 24	44	346
Lockwood, James F., Philadelphia, Pa. Toilet-case .....	18,676	Oct. 9	45	130
Lockwood, James F., Philadelphia, Pa. Slipper-case .....	18,677	Oct. 9	45	130
Lockwood, James F., assignor to himself, T. J. Whitney, and A. Bryant, Philadelphia, Pa. Whisk-holder and match-safe .....	18,353	May 29	43	987
Lowell Manufacturing Company. (See Beale, Morton F., assignor.)				
Lowell Manufacturing Company. (See Fisher, Edwin, assignor.)				
Lowell Manufacturing Company. (See Horan, Henry, assignor.)				
Lowell Manufacturing Company. (See Jacobs, Winthrop L., assignor.)				
Lowell Manufacturing Company. (See McMann, John, assignor.)				
Lowell Manufacturing Company. (See Poole, Edward, assignor.)				
Lowell Manufacturing Company. (See Sauer, Emil G., assignor.)				
Lowell Manufacturing Company. (See Swapp, Charles W., assignor.)				
Lowell Manufacturing Company. (See Wright, George C., assignor.)				
Lynch, Eliza J., New York, N. Y. Child's bonnet .....	{ 18,756 } 18,757	Nov. 27	45	949
MacKellar, Smiths & Jordan Company. (See Ihlenburg, Herman, assignor.)				
MacKellar, Smiths & Jordan Company. (See Jackson, William W., assignor.)				
Maidhof, Joachim, New York, N. Y. Trimming .....	18,369	June 5	43	1120
Maidhof, Joachim, New York, N. Y. Dress-trimming .....	18,586	Sept. 4	44	1072
Malloch, Andrew M. (See Brogan and Malloch.)				
Mankey, Frederick, Williamsport, Pa. Open-work panel .....	{ 18,451 } 18,452 18,678	July 10	44	112
Marchetti, Giulio, Halifax, county of York, England. Rug .....	to 18,681	Oct. 9	45	130
Marchetti, Giulio, Halifax, county of York, England, assignor to J. Crossley & Sons, New York, N. Y. Chair-cover .....	{ 18,652 } 18,653	Oct. 2	45	2
Marchetti, Giulio, Halifax, county of York, England, assignor to J. Crossley & Sons, New York, N. Y. Chair-cover .....	18,682	Oct. 9	45	130
Mardler, Luse & Co. (See Captain, William F., assignor.)				
Martin, Charles T., assignor to Consumers Gas Saving and Inspection Company, Chicago, Ill. Nursery-burner .....	18,274	Apr. 24	43	394
Martin, Julius, et al. (See Murphy, John M., assignor.)				
Matzen, Herman, Bedford, Ohio. Chair-back .....	18,824	Dec. 25	45	1464
Maurer, Francis W., et al. (See Maurer, William H., assignor.)				
Maurer, Joseph W., et al. (See Maurer, William H., assignor.)				
Maurer, William H., assignor to F. W. and J. W. Maurer, Philadelphia, Pa. Trimming .....	18,527	Aug. 14	44	702
Maxwell, John, Oneida, N. Y. Burial-casket .....	18,153	Mar. 20	42	1172
Mayer, Adolph, Gengenbach, Baden, assignor to A. Siedle, Freiberg, Germany. Gong for table-bells .....	18,493	July 31	44	432
McCabe, William, assignor to St. Louis Corset Company, St. Louis, Mo. Corset .....	18,825	Dec. 25	45	1464
McCarthy, Oliver, assignor to Meriden Britannia Company, Meriden, Conn. Collin-plate .....	18,273	Apr. 24	43	394
McCarthy, Oliver, assignor to Meriden Britannia Company, Meriden, Conn. Collin-screw .....	18,796	Dec. 11	45	1196
McCutchen, Charles W., Peckskill, N. Y. Heating-stove .....	18,616	Sept. 18	44	1296
McGann, Owen J., Pittsburg, Pa., assignor to one-half to J. C. Pennie, Washington, D. C. Water-closet bowl .....	18,192	Mar. 20	42	1172
McGee, James A., New York, N. Y. Shrine .....	18,181	Mar. 13	42	1096
McLaughlin Brothers. (See Schreyer, Woldemar, assignor.)				
McLaughlin, John K., Philadelphia, assignor to Buckwalter & Co., Royer's Ford, Pa. Heating-stove .....	18,014	Jan. 10	42	100
McMann, John, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet .....	{ 18,637 } 18,638	Sept. 25	44	1404
McMann, John, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet .....	18,758	Nov. 27	45	949
McMath, Jesse H., Cleveland, Ohio. Badge .....	18,015	Jan. 10	42	100
McQuarrie, Malcolm S., Paso Robles, Cal. Chair-brace .....	18,607	Sept. 11	44	1190
Meagher, Thomas E., assignor to Schofield, Mason & Co., Philadelphia, Pa. Carpet .....	{ 18,041 } to 18,046	Feb. 7	42	494
Meagher, Thomas E., assignor to Schofield, Mason & Co., Philadelphia, Pa. Carpet .....	{ 18,102 } to 18,104	Feb. 21	42	727
Meagher, Thomas E., assignor to Schofield, Mason & Co., Philadelphia, Pa. Carpet .....	18,115	Feb. 23	42	832

*Alphabetical list of patentees of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Mehl, Henry, Hoboken, N. J. Material for hand-bags, &c.	18,002	Jan. 3	42	2
Menahan & Co., John. (See Craus, Henry S., assignor.)				
Meriden Britannia Company. (See McCarthy, Oliver, assignor.)				
Merklen Brothers. (See Garet, Emile, assignor.)				
Mersereau, Frank D., Orange, N. J. Handle	18,528	Aug. 14	44	702
Mersereau, William T., South Orange, N. J. Badge	18,529	Aug. 14	44	702
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.	18,026 to 18,029	Jan. 24	42	300
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.	18,275 to 18,280	Apr. 24	43	394
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.	18,336 to 18,342	May 22	43	890
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.	18,370 to 18,371	June 5	43	1120
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.	18,654 to 18,668	Oct. 2	45	2
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.	18,797 to 18,808	Dec. 11	45	1196
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth.	18,372	June 5	43	1120
Meyer, George A., Brooklyn, N. Y. Sign-box				
Meyer-Sniffen Company. (See Emerson, William R., assignor.)				
Meyer, Victor E. (See Meyer, Charles T. and V. E.)				
Michigan Stove Company. (See Keep and Wipfler, assignors.)				
Mickle, John, <i>et al.</i> (See Atwater, Richard M., assignor.)				
Miller, Bettie H., Philadelphia, Pa., assignor to Cheney Brothers, South Manchester, Conn. Fabric.	18,395	June 19	43	1352
Mitchell, Frederick, Brooklyn, N. Y. Calendar	18,373	June 5	43	1120
Minnix, William H., Washington, D. C. Handkerchief or banner.	18,530 to 18,531	Aug. 14	44	702
Mix, Garry L., Yalesville, Conn. Spoon	18,290	May 1	43	514
Moniot, Achille, assignor to A. Cameron and J. Zimmerman, Philadelphia, Pa. Table-cover	18,660	Oct. 16	45	238
Moore, Joseph C., Montreal, Quebec, Canada. Dentifrice-case	18,354	May 29	43	987
Moore, Mary R., Washington, D. C. Handkerchief	18,494	July 31	44	452
Moran, Ellen, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume	18,062	Feb. 14	42	618
Moran, Ellen, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's princess costume	18,291	May 1	43	514
Morao, Ellen, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's wrap	18,292	May 1	43	514
Moran, Ellen, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume	18,317 to 18,318	May 15	43	760
Moran, Ellen, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Tea-gown.	18,396	June 19	43	1352
Mott, Benjamin I., Brooklyn, N. Y. Bottle	18,495	July 31	44	452
Moulton, Frank W., Washington, D. C. Cigar-stand and ash-receiver	18,240	Apr. 3	43	2
Mundy, James A., Philadelphia, Pa. Pavement	18,708	Oct. 30	45	464
Muntz, Oliver H., Greenville, Pa. Hame-clip	18,047	Feb. 7	42	494
Murphy, John M., assignor of two-thirds to J. Martin, New York, N. Y., and F. H. Beecher, Seymour, Conn. Badge	18,194	Mar. 20	42	1172
Murray, Lewis J., Birmingham, county of Warwick, England. Flower-stand	18,702	Oct. 23	45	350
Music, John U. (See Andrews, Willard J., assignor.)				
National Weighing Machine Company. (See Schneekloth, Hans A., assignor.)				
Nellis, Emery D. (See Seifert and Nellis.)				
Newton, Stephen S., Brooklyn, N. Y. Bottle-slopper	18,105	Feb. 21	42	727
Nicholson, J. Whitall, <i>et al.</i> (See Atwater, Richard M., assignor.)				
Noble, William J., New York, N. Y. Burial-casket top	18,030	Jan. 24	42	300
Nollner, Hngo, Jersey City, N. J., assignor to S. Baum and J. Tarlow, New York, N. Y. Slipper	18,507	Aug. 7	44	512
Nottingham, Edwin J., Washington, D. C. Badge	18,468	July 17	44	236
Noyes, Harlan S., Brooklyn, N. Y. Watch-case or leekot	18,532 to 18,533	Aug. 14	44	702
Nye, George E., assignor of one-half to E. Tredeick, Philadelphia, Pa. Underwear	18,496	July 31	44	452
Nye & Son, A. T. (See Gobeille, Joseph L., assignor.)				
O'Brien, Daniel, Washington, D. C. Shirt-cuff	18,343	May 22	43	890
O'Connor, John S., White Mills, Pa. Ornamentation of glassware	18,732	Nov. 13	45	714
Osborn, Frederick G., Newark, N. J., assignor to E. Faber, New York, N. Y. Eraser-holder	18,003	Jan. 3	42	2
Owen, Herbert S. (See Starley, John M., assignor.)				
Packer, John F., assignor to himself and J. H. Bradley, Chicago, Ill. Radiator	18,784	Dec. 4	45	1072
Packer, John F., assignor to himself and J. H. Bradley, Chicago, Ill. Radiator	18,809 to 18,810	Dec. 11	45	1196
Parker, Fred, assignor of one-half to H. Parker, Jersey City, N. J. Watch-case	18,608	Sept. 11	44	1190
Parker, Fred and H., Jersey City, N. J. Watch-case	18,847	Dec. 18	45	1324
Parker, Harry. (See Parker, Fred, assignor.)				
Parker, Harry. (See Parker, Fred and H.)				
Parsons, Lewis A., assignor to Brooklyn Watch Case Company, Brooklyn, N. Y. Watch-case	18,733	Nov. 13	45	714
Patitz, Albert, assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Lamp-fount	18,262	Apr. 17	43	254
Paton, William, Johnstone, county of Renfrew, Scotland. Exhibit for shoe-laces	18,303	May 8	43	636
Peck, Stew & Wilcox Company. (See Whitney, Pardon A., assignor.)				
Peck, Stew & Wilcox Company. (See Wilcox, Marcellus B., assignor.)				
Peckham, J. S. & M. (See Bascom, George C., assignor.)				
Pegel, Julius, Camden, N. J., assignor to J. Bromley & Sons, Philadelphia, Pa. Rug	18,664	Jan. 3	42	2
Pegel, Julius, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug	18,431 to 18,433	July 3	44	2
Pegel, Julius, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug	18,759 to 18,761	Nov. 27	45	949
Pennie, John C. (See McGann, Owen J., assignor.)				
Peters, Julius. (See Buhlmann and Peters.)				
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug	18,397 to 18,399	June 19	43	1352
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug	18,762 to 18,763	Nov. 27	45	949

*Alphabetical list of patentees of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Pfeil, Charles H., assignor to Pfeil, Williams & Brett, Chicago, Ill. Ornamentation of watch cases.	18,709	Oct. 30	45	464
Pfeil, Williams & Brett. (See Pfeil, Charles H., assignor.)				
Pierce, John B., and J. Bond, Buffalo, N. Y. Radiator.	18,241	Apr. 3	43	2
Pike, William A., Brooklyn, assignor to Hard & Parsons, New York, N. Y. Ornamentation of paper.	18,185	Mar. 13	42	1063
Pirkh, John, Brooklyn, N. Y. Window-guard.	18,293	May 1	43	514
Pisch, Francis L., New York, N. Y. Lantern-body.	18,400	June 19	43	1352
Pistorius, Henry A., assignor to Towle Manufacturing Company, Newburyport, Mass. Spoon.	18,453	July 10	44	112
Pollard, Paxton, Norfolk, Va. Badge.	18,826	Dec. 25	45	1464
Poole, Edward, Brooklyn, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,294	May 1	43	514
Poole, Edward, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,534	Aug. 14	44	702
Poole, Edward, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,575 to 18,578	Aug. 28	44	948
Poole, Edward, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,639	Sept. 25	44	1404
Poole, Edward, Brooklyn, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,764	Nov. 27	45	949
Preston, E. B. (See Bruegger, Preston, and Hicks, assignors.)				
Preston, George E. (See Bruegger, Preston, and Hicks.)				
Price, John A., Scranton, Pa. Cooking-stove.	18,304	May 8	43	636
Randolph, Thaddeus F., et al. (See Collins, Timothy J., assignor.)				
Rankin, Thomas I., assignor to A. Cox Stove Company, Philadelphia, Pa. Parlor-stove.	18,744	Nov. 20	45	838
Ransom, John R. B., et al. (See Collins, Timothy J., assignor.)				
Ransom, Moses Y., Cleveland, Ohio. Foot-stool.	18,827	Dec. 25	45	1464
Rathbone, Sard & Co. (See Van Buren, Jafew S., assignor.)				
Rawak, Henry, New York, N. Y. Scarf.	18,454	July 10	44	112
Reed & Barton Corporation. (See Jackson, Austin F., assignor.)				
Reed, Henry F., and S. Keller, New York, N. Y. Foundation-piece for cut flowers.	18,785	Dec. 4	45	1072
Rhind, Frank, Meriden, Conn. Gas-burner.	18,535	Aug. 14	44	702
Rhodes, Daniel. (See Gideon and Rhodes.)				
Rhodes, Daniel, Washington, D. C. Fan, handkerchief, &c.	18,579	Aug. 28	44	948
Richards, Lucius J., Philadelphia, Pa. Coffee or tea pot.	18,355	May 29	43	987
Richards, Thomas, Jersey City, N. J. Pen and pencil case.	18,410	June 26	43	1460
Richmond, Mary, Lockport, N. Y. Knife and fork.	18,455	July 10	44	112
Riessner and Company, C. (See Frey, John A., assignor.)				
Righter, Oscar, assignor to Dornan Brothers, Philadelphia, Pa. Carpet.	18,106 to 18,109	Feb. 21	42	727
Righter, Oscar, assignor to Dornan Brothers, Philadelphia, Pa. Carpet.	18,116 to 18,121	Feb. 28	42	832
Rindskopf, Abraham P. and H. P., Brooklyn, N. Y. Garment-supporter.	18,205	Mar. 27	42	1294
Rindskopf, Henry P. (See Rindskopf, Abraham P. and H. P.)				
Rogers & Hamilton Company. (See Schoonmaker, Edward T., assignor.)				
Rogers, John, New Canaan, Conn. Group of statuary.	18,587	Sept. 4	44	1072
Rogers, John, New Canaan, Conn. Group of statuary.	18,734	Nov. 13	45	714
Roggenburger, Sigmond, Philadelphia, Pa. Cap.	18,710	Oct. 30	45	464
Rohm, John W., Pittsburg, Pa. Lamp or torch body.	18,669	Oct. 2	45	2
Roome, Matilda, Washington, D. C. Chair.	18,786	Dec. 4	45	1072
Rose, Rufus H., New York, N. Y. Handkerchief.	18,469	July 17	44	236
Rose, Rufus H., New York, N. Y. Handkerchief.	18,487	July 31	44	452
Rosenbluth, Edward S., Hartford, Conn. Corset.	18,031	Jan. 24	42	300
Roy, Lizzie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's wrap-per.	18,295	May 1	43	514
Roy, Lizzie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Miss's apron.	18,319	May 15	43	760
Roy, Lizzie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Walking-skirt.	18,320	May 15	43	760
Roy, Lizzie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Walking-skirt.	18,344	May 22	43	890
Roy, Lizzie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Skirt.	18,385	June 12	43	1242
Rundecker, Joseph, West Stratford, Conn. Ornamental stand.	18,640	Sept. 25	44	1404
Ruthven, Edwin C., Philadelphia, Pa., assignor to D. W. Bruce, New York, N. Y. Font of type.	18,617	Sept. 18	44	1206
Rutzler & Blake. (See Williams, Francis A., assignor.)				
Sampson, Edward C. (See Meyer, Charles T. and V. E., assignors.)				
Samuel, Edward. (See Wharton and Samuel.)				
Sandes, Margaret L., Chicago, Ill. Badge.	18,745	Nov. 20	45	838
Sauer, Emil G., Brooklyn, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,296 to 18,297	May 1	43	514
Sauer, Emil G., Brooklyn, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,765	Nov. 27	45	950
Sayers, William E., New York, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.	18,166 to 18,168	Mar. 6	42	965
Schermerhorn, Rodney F., and F. S. Weller, assignors to Channon Emery Stove Company, Quincy, Ill. Cooking-range.	18,254	Apr. 10	43	120
Schickner, William G., Cincinnati, Ohio. Cash-register cabinet.	18,819	Dec. 18	45	1324
Schiele & Company, Lewis. (See Koon, Joseph, assignor.)				
Schmidt, Christian A. (See Steimecke, Samuel, assignor.)				
Schneekloth, Hans A., assignor to National Weighing Machine Company, New York, N. Y. Case for weighing-machines.	18,818	Dec. 18	45	1324
Schofield, Mason & Co. (See Hill, Eugene H., assignor.)				
Schofield, Mason & Co. (See Lees, Arthur, assignor.)				
Schofield, Mason & Co. (See Meagher, Thomas E., assignor.)				
Schoonmaker, Annie V., assignor to Dunham, Buckley & Co., New York, N. Y. Dress-trimming.	18,434	July 3	44	2
Schoonmaker, Edward T., New York, N. Y., assignor to Rogers & Hamilton Company, Waterbury, Conn. Ornamentation of spoon-bandles.	18,169 to 18,170	Mar. 6	42	965
Schott, Joseph S., Burlington, Iowa. Hame attachment.	18,345	May 22	43	890
Schreyer, Woldemar, Brooklyn, assignor to McLaughlin Brothers, New York, N. Y. Box.	18,182	Mar. 13	42	1066
Schuck, Valentine, New York, N. Y., assignor to Suto Brothers Braid Company, of New York.	18,588 to 18,589	Sept. 4	44	1072
Schuck, Valentine, assignor to Suto Brothers Braid Company, New York, N. Y. Braid.	18,641	Sept. 25	44	1404



*Alphabetical list of patents of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Schwarz, Isaac A., <i>et al.</i> (See Lipper, Benjamin, assignor.)				
Schwarzschild, August, and N. Greenfield, New York, N. Y. Confectionery.....	18,206	Mar. 27	42	1294
Scott, George A., New York, N. Y. Curling and crimping comb.....	18,787	Dec. 4	45	1072
Seely, Obadiah, Syracuse, N. Y. Door-hinge.....	18,828	Dec. 25	45	1464
Seifert, Frank A. (See Smith and Seifert.)				
Seifert, Frank A., and E. D. Nellis, assignors to Bridge and Beach Manufacturing Company, St. Louis, Mo. Heating-stove.....	18,737	Nov. 13	45	714
Seifert, Frank A., and E. D. Nellis, assignors to Bridge and Beach Manufacturing Company, St. Louis, Mo. Heating-stove.....	18,766	Nov. 27	45	950
Shattuck, George H., New York, N. Y. Pen-holder barrel.....	18,482	July 24	44	346
Sheils, Catherine, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Girl's costume.....	18,063	Feb. 14	42	618
Sheils, Catherine, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Girl's dress.....	18,483	July 24	44	346
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,016	Jan. 10	42	160
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,171	Mar. 6	42	966
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,207	Mar. 27	42	1294
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's walking-skirt.....	18,217	Mar. 27	42	1294
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's tea-gown.....	18,255	Apr. 10	43	120
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,305	May 8	43	636
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,321	May 15	43	760
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,346	May 22	43	890
Sheils, Jennie, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.....	18,386	June 12	43	1312
Shenton, Enoch, Malden, Mass. Hot-air-register front.....	18,435	July 3	44	2
Shepard, Charles G., and P. Adams, Buffalo, N. Y. Toy savings-bank.....	18,618	Sept. 18	44	1296
Sheridan, P. H., trustee. (See Keyser, Peter D., assignor.)				
Shiebler, George W., Brooklyn, N. Y. Handle for forks, &c.....	18,387	June 12	43	1242
Siedle, Alfred. (See Mayer, Adolph, assignor.)				
Slater, John, Burslem, England. Dish.....	18,020	Jan. 17	42	204
Slater, John, Burslem, county of Stafford, England. Water-closet.....	18,195	Mar. 20	42	1172
Slater, Warren G., Fremont, Mich. Button-fastener.....	18,281	Apr. 24	43	384
Smith, Charles B., Fitchburg, Mass. Fabric.....	18,347 to 18,350	May 22	43	890
Smith, Holmes, and F. A. Seifert, assignors to Bridge and Beach Manufacturing Company, St. Louis, Mo. Heating-stove.....	18,767 to 18,768	Nov. 27	45	950
Smith, William D., Denver, Colo. Medallion, &c.....	18,034	Jan. 31	42	386
Smith, William E., Washington, D. C. Bicycle-frame.....	18,746	Nov. 20	45	838
Smith, William T., Philadelphia, Pa. Rug.....	18,703 to 18,704	Oct. 23	45	350
Smith, William T., Philadelphia, Pa. Rug.....	18,711 to 18,712	Oct. 30	45	464
Soderholm, Louise, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Miss's costume.....	18,256	Apr. 10	43	120
Southwick, Amos A., Ashtabula, Ohio. Badge.....	18,609	Sept. 11	44	1190
Spalding & Brothers, A. G. (See Spalding, J. Walter, assignor.)				
Spalding, J. Walter, New York, N. Y., assignor to A. G. Spalding & Brothers, Chicago, Ill. Ornamentation of game-tablets.....	18,411 to 18,412	June 26	43	1400
Spalding, J. Walter, New York, N. Y., assignor to A. G. Spalding & Brothers, Chicago, Ill. Ornamentation of game-tablets.....	18,470	July 17	44	236
Sparks, William A., Rochester, N. Y. Burial-casket.....	18,172	Mar. 6	42	966
St. Louis Corset Company. (See McCabe, William, assignor.)				
Stachowski, Kasimir, Chicago, Ill. Badge.....	18,590	Sept. 4	44	1072
Starley, John M., Coventry, England, assignor of one-half to H. S. Owen, Washington, D. C. Bicycle-frame.....	18,820	Dec. 18	45	1324
Stauffer, David F., York, Pa. Biscuit or cracker.....	18,580	Aug. 28	44	945
Stearns, Edward C., Syracuse, N. Y. Pulley-frame.....	18,536	Aug. 14	44	702
Stearns, William R., Melrose, and G. W. Lewis, Malden, Mass., assignors to Highland Slate Manufacturing Company, Portland, Me. Grave-stone.....	18,196 to 18,199	Mar. 20	42	1172
Stein, Leo, assignor to Stein Manufacturing Co., Rochester, N. Y. Burial-casket.....	18,413	June 26	43	1460
Stein Manufacturing Co. (See Stein, Leo, assignor.)				
Steiner, Jean, New York, N. Y. Badge.....	18,456	July 10	44	112
Stephenson, John, New York, N. Y. Car-truck frame.....	18,551	Aug. 21	44	826
Steu, Jonathan, Savannah, Ga. Back of envelopes.....	18,414	June 26	43	1460
Stiencke, Samuel, Brooklyn, N. Y., assignor to C. A. Schmidt, Hoboken, N. J. Gimp.....	18,173	Mar. 6	42	966
Stiff, Charles W., and J. Watrous, Foxborough, Mass. Book-cover protector.....	18,298 to 18,769	May 1	43	514
Stimpson, Edwin B., Jr., Brooklyn, N. Y. Trimming.....	18,771 to 18,788	Nov. 27	45	950
Stimpson, Edwin B., Brooklyn, N. Y. Strap.....	18,789	Dec. 4	45	1072
Stimpson, Edwin B., Brooklyn, N. Y. Strap.....	18,811 to 18,812	Dec. 11	45	1196
Stockstrom, Charles A. and L., St. Louis, Mo. Gas or vapor stove.....	18,257 to 18,258	Apr. 10	43	120
Stockstrom, Louis. (See Stockstrom, Charles A. and L.)				
Stone, George M. (See Stone, Thomas and G. M.)				
Stone, Thomas and G. M., Newark, N. J., assignors to Hall & Carpenter, Philadelphia, Pa. Metal plate.....	18,581	Aug. 28	44	948
Strans & Sons, L. (See Davies, Benjamin, assignor.)				
Strouse, Bernhard, <i>et al.</i> (See Goodman, Isaac, assignor.)				
Sutro Brothers Braid Company. (See Schuck, Valentine, assignor.)				
Swain, Catherine, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's walking-skirt.....	18,484	July 24	44	346

*Alphabetical list of patentees of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Swapp, Charles W., New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	{ 18,552 to 18,557 }	Aug. 21	44	826
Swapp, Charles W., New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,642	Sept. 25	44	1404
Swapp, Charles W., New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.	18,772	Nov. 27	45	950
Swindell, Charles J. B., <i>et al.</i> (See Garton, William M., assignor.)				
Swindell, Joseph R., <i>et al.</i> (See Garton, William M., assignor.)				
Swindell, Walter B., <i>et al.</i> (See Garton, William M., assignor.)				
Swindell, William, <i>et al.</i> (See Garton, William M., assignor.)				
Tarlow, Jacob, <i>et al.</i> (See Nollner, Hugo, assignor.)				
Tatum, C. Albert, <i>et al.</i> (See Atwater, Richard M., assignor.)				
Tatum, Charles A., assignor to Whitall, Tatum & Co., New York, N. Y. Bottle or jar cover.	18,005	Jan. 3	42	2
Taylor & Boggis Foundry Company. (See De Mooy, John, Jr., assignor.)				
Terry, Edwin, Brooklyn, N. Y. Watch-chain.	18,356	May 29	43	987
Toufel, Charles, assignor to A. H. Andrews & Company, Chicago, Ill. Folding-bed case.	18,813	Dec. 11	45	1196
Thiem, Rudolph. (See Kahn and Thiem.)				
Thomas, Frank S., Topeka, Kans. Desk-cabinet.	18,322	May 15	43	760
Thompson, Charles E., Lansingburg, N. Y. Box.	18,747	Nov. 20	45	838
Thorn, Jacob S., Philadelphia, Pa. Shingle or roofing-plate.	{ 18,208 to 18,212 }	Mar. 27	42	1274
Thorn, Jacob S., Philadelphia, Pa. Shingle or roofing-plate.	18,591	Sept. 4	44	1072
Tower, John J., Brooklyn, N. Y. Padlock-case.	18,436	July 3	44	2
Towle Manufacturing Company. (See Pistorius, Henry A., assignor.)				
Tredick, Edward. (See Nye, George E., assignor.)				
Turner, Mary, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's polonaise.	18,017	Jan. 10	42	100
Turner, Mary, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's costume.	18,174	Mar. 6	42	966
Turner, Mary, assignor to Butterick Publishing Company, (limited,) New York, N. Y. Lady's basque.	18,323	May 15	43	760
Turpin, S. Bowen, Washington, D. C. Handkerchief.	18,558	Aug. 21	44	826
Underhill, Francis M., <i>et al.</i> (See Atwater, Richard M., assignor.)				
Union Type Foundry. (See Foster, Freling C., assignor.)				
Union Type Foundry. (See West, John, assignor.)				
United Society of Christian Endeavor. (See Woolley, Fred H. C., assignor.)				
Upton, Charles S., New York, N. Y. Vase for lamps, &c.	18,471	July 17	44	236
Upton, Charles S., New York, N. Y. Gas-burner.	18,721	Nov. 6	45	594
Upton, Gabriel, assignor to C. Button and M. L. Finckel, Philadelphia, Pa. Knit fabric.	18,610	Sept. 11	44	1110
Valetton, Louis D. (See Hensel, Valetton, and Cook.)				
Van Buren, Jafew S., assignor to Rathbone, Sard & Co., Albany, N. Y. Heating-stove.	18,773	Nov. 27	45	910
Varwig, George C., Philadelphia, Pa. Toilet-case.	18,242	Apr. 3	43	2
Varwig, George C., Philadelphia, Pa. Whisk-broom holder.	18,374	June 5	43	1120
Village, Thomas, South Norwalk, assignor to Branford Lock Works, Branford, Conn. Ornamentation of builders' hardware.	18,357	May 29	43	987
Volk, Stephen A. D., Minneapolis, Minn. Building-block toy.	18,592	Sept. 4	44	1072
Von Brennerberg, William, New York, N. Y. Necktie.	18,670	Oct. 2	45	2
Wagner, Charles T., College Point, N. Y. Quilting.	{ 18,401 to 18,404 }	June 19	43	1352
Wagner, Charles T., College Point, N. Y. Quilting.	{ 18,415 to 18,416 }	June 26	43	1460
Wallace & Sons. (See Bryant, Edison L., assignor.)				
Walrath, Alphonso, Fort Plain, N. Y. Broom-ferule.	18,110	Feb. 21	42	727
Walter, William G., assignor to Atterbury & Co., Pittsburg, Pa. Dish.	18,358	May 29	43	967
Ward, Charles W., Yonkers, N. Y. Watch-bridge.	{ 18,722 to 18,723 }	Nov. 6	45	594
Ward, Charles W., Yonkers, N. Y. Watch-bridge.	{ 18,821 to 18,822 }	Dec. 18	45	1324
Warren, Lang & Co. (See Clémence, Louis, assignor.)				
Waterbury Clock Company. (See Bannatyne, Archibald, assignor.)				
Waterbury Clock Company. (See Lawson, William, assignor.)				
Watkinson, George, New Haven, assignor to Colchester Rubber Company, Colchester, Conn. Ornamentation of rubber soles.	18,593	Sept. 4	44	1072
Watrous, Joseph. (See Stiff and Watrous.)				
Wedding, George O. (See Hamburg and Wedding.)				
Weiland, Henry L., Rochester, N. Y. Thermometer-back.	18,405	June 19	43	1352
Weinberg, Charles, assignor to C. Weinberg & Co., New York, N. Y. Gimp.	18,183	Mar. 13	42	1066
Weinberg, Charles, assignor to C. Weinberg & Co., New York, N. Y. Gimp.	18,619	Sept. 18	44	1296
Weinberg & Co., C. (See Weinberg, Charles, assignor.)				
Weiss, Albert, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug.	{ 18,437 to 18,439 }	July 3	44	2
Weld, Samuel P., Bond's Village, Mass. Bottle-stopper.	18,406	June 19	43	1352
Weller, Ferdinand S. (See Schermerhorn and Weller.)				
Welling, William M., New York, N. Y. Check or counter.	18,122	Feb. 28	42	832
Welling, William M., New York, N. Y. Check or counter.	18,213	Mar. 27	42	1294
Wells, George J., Albany, N. Y., assignor to Chicago Hardware Manufacturing Company, Chicago, Ill. Door-trimming.	18,351	May 22	43	890
West, John, Brooklyn, N. Y. Type.	18,790	Dec. 4	45	1072
West, John, Brooklyn, N. Y. Type.	18,829	Dec. 25	45	1464
West, John, assignor to Union Type Foundry, Chicago, Ill. Type.	18,516	Aug. 7	44	572
Western Brass Manufacturing Company. (See Harkins, Charles H., assignor.)				
Whalley, Edward, Washington, D. C. Tile.	18,375	June 5	43	1120
Wharton and Company, William, Jr. (See Wharton and Samuel, assignors.)				
Wharton, William, Jr., and E. Samuel, assignors to W. Wharton, Jr., and Company, (incorporated,) Philadelphia, Pa. Railway-rail.	{ 18,324 to 18,328 }	May 15	43	760
Wheeler, Candace, New York, N. Y. Curtain fabric.	18,749	Nov. 20	45	838
Wheeler, Candace, New York, N. Y. Fabric for curtains, draperies, &c.	18,823	Dec. 18	45	1324

*Alphabetical list of patentees of designs—Continued.*

Name, residence, and design.	No.	Date.	Official Gazette.	
			Vol.	Page.
Whitall, James, <i>et al.</i> (See Atwater, Richard M., assignor.)				
Whitall, John M., <i>et al.</i> (See Atwater, Richard M., assignor.)				
Whitall, Tatum & Co. (See Tatum, Charles A., assignor.)				
Whitney, Pardon A., assignor to Peck, Stow & Wilcox Company, Southington, Conn. Clamp-frame.	18,376	June 5	43	1120
Whitney, Thomas J., <i>et al.</i> (See Lockwood, James F., assignor.)				
Wiesen, Carl, Wüste Waltersdorf, Germany, assignor to G. & J. Ballin, New York, N. Y. Table-cover.	18,537	Aug. 14	44	702
Wilkinson, William H. (See King and Wilkinson.)				
Wilkinson, William H., assignor to Co-Operative Foundry Company, Rochester, N. Y. Heating-stove	18,377	June 5	43	1120
Wilkinson, William H., Rochester, N. Y., assignor to Bridge and Beach Manufacturing Company, St. Louis, Mo. Cooking-stove.	18,774	Nov. 27	45	950
Willcox, Marcellus B., Cleveland, Ohio, assignor to Peck, Stow & Wilcox Company. Southington, Conn. Coffee-mill box	18,243	Apr. 3	43	2
Williams, Francis A., Brooklyn, assignor to Rutzler & Blake, New York, N. Y. Furnace-front.	18,123	Feb. 28	42	832
Williamson, W. Alex., Newark, N. J. Picture-book	18,538	Aug. 14	44	702
Wilson, Milford J., Painesville, Ohio. Metal binding	18,620	Sept. 18	44	1296
Winslow, William H., Chicago, Ill. Lattice-work	18,713	Oct. 30	45	464
Wipfler, Charles. (See Keep and Wipfler.)				
Witteck, Paul, Butler, N. J., assignor to Butler Hard Rubber Company, New York, N. Y. Comb.	18,214	Mar. 27	42	1294
Woolley, Fred H. C., Medford, assignor to United Society of Christian Endeavor, Boston, Mass. Badge	18,184	Mar. 13	42	1066
Worthington, Henry G., Washington, D. C. Handkerchief	18,582	Aug. 28	41	948
Wright, George C., New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	18,643	Sept. 25	44	1404
York Manufacturing Company. (See Lockett, Benjamin C., assignor.)				
Zeckendorf, Louis, New York, N. Y. Lead-pencil	18,032	Jan. 24	42	300
Zimmerman, John, <i>et al.</i> (See Moniet, Achille, assignor.)				
Zinn, Simen, New York, N. Y. Box	{ 18,683 } { 18,684 }	Oct. 9	45	130

# ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Volume.	Page.
Abel, William H. (See Horne and Abel.)				
Abelé, Henri, Rheims, France. Champagne and other wines	15,173	Feb. 14	42	618
Acme Staple and Machine Company, Philadelphia, Pa. Metallic staples and goods united by such staples	15,316	Apr. 10	43	120
Acme Staple and Machine Company, Philadelphia, Pa. Metallic staples and goods united by such staples	16,130	Dec. 25	45	1464
Aeruman & Son, Fordyce, Ark. Purgative pills	15,417	May 8	43	636
Aeruman & Son, Fordyce, Ark. Medicinal oil or liniment	15,418	May 8	43	636
Adamant Manufacturing Company, Syracuse, N. Y. Plaster compositions for architectural purposes	15,476	May 22	43	890
Adams & Sons, Brooklyn, N. Y. Chewing-gum	15,189	Feb. 21	42	728
Adler & Co., B. W., Philadelphia, Pa. Under-clothing and outside suits for men and boys	15,159	Feb. 7	42	494
Albany Perforated Wrapping Paper Company, Albany, N. Y. Toilet and wrapping paper	15,347	Apr. 10	43	120
Albinger, Stoer & Co., Philadelphia, Pa. Coat-linings	15,276	Mar. 13	42	1066
Aldrich, Don H., Concord, N. H. Corn-cure	15,115	Jan. 24	42	300
Aleutian Islands Fishing and Mining Company, San Francisco, Cal. Canned salmon	16,098	Dec. 18	45	1321
Allen & Co., Isaac D., Boston, Mass. Zephyr-finish Germantown wool	15,808	Aug. 28	44	948
Allen & Hanburys, London, England. Confectionery and medicated confectionery	15,329	Apr. 3	43	2
Allen, Wallis L., New York, N. Y. Corsets	15,649	July 3	44	2
Alloways, James M., Indianapolis, Ind. Tonic medicine	15,626	June 26	43	1460
Allsopp & Sons, (limited.), Samuel, Burton-on-Trent, county of Stafford, England. Malt liquors	16,053	Dec. 4	45	1072
Alpine Safe Co., Cincinnati, Ohio. Safe	15,190	Feb. 21	42	728
American Glucose Company, Buffalo, N. Y.; Leavenworth, Kans.; Iowa City, Iowa; Peoria, Ill., and Tippecanoe City, Ohio. Glucose, grape-sugar, and corn-sirup	15,627	June 26	43	1160
American Improved Anti-Friction Metal Company, Mobile, Ala.; Bremen, Germany, and Paris, France. Anti-friction metal	15,399	May 1	43	514
American Shoe Tip Company, Boston, Mass. Metallic button-fasteners	16,071	Dec. 11	45	1196
American Soap and Washoline Company, Cohoes, N. Y. Washing compound or mixture	15,867	Sept. 18	41	1296
Ames, William B., Chicago, Ill. Amalgam for dental and other purposes	16,008	Nov. 20	45	853
Ammonia Soap and Chemical Company, Chicago, Ill. Soap	15,116	Jan. 24	42	300
Amoskeag Indurated Fibre Ware Company, Peterborough and Manchester, N. H. Household articles made of wood pulp	15,910	Oct. 2	45	2
Ams, Max, New York, N. Y. Sauce and mustard	16,118	Dec. 25	45	1461
Anderson & Co., M. J., Sherman, Tex. Vegetable remedies for consumption, rheumatism, and all diseases arising from impure blood	15,911	Oct. 2	45	2
Andrus, William F., Columbus, Ohio. Spices	16,026	Nov. 27	45	950
Anthony & Company, E. & H. T., New York, N. Y. Photographic paper for making prints	15,400	May 1	43	514
Apollinaris Company, (limited.), London, England. Natural mineral water	15,132	Jan. 31	42	386
Apollinaris Company, (limited.), London, England. Natural mineral water	15,868	Sept. 18	44	1296
Arata, Peter, New York, N. Y. Envelopes	15,360	Apr. 17	43	254
Arnd & Bell, Baltimore, Md. Plug or twist tobacco, or tobacco in bulk	15,401	May 1	43	514
Arnold & Co., F. R., New York, N. Y. Soaps and perfumeries	15,072	Jan. 3	42	2
Arnold Print Works, North Adams, Mass. Prints and cotton piece-goods	15,786	Aug. 21	44	826
Arnold Print Works, North Adams, Mass. Prints and cotton piece-goods	15,787	Aug. 21	41	826
Arthur Company, New York, N. Y. Gate-valves	15,453	May 15	43	760
Aschermann & Co., Ed, Milwaukee, Wis. Cigars	15,133	Jan. 31	42	386
Aseough, Jesse, Handsworth, near Birmingham, county of Stafford, England. Toilet preparations	15,419	May 8	43	636
Aseough, Jesse, Handsworth, near Birmingham, county of Stafford, England. Starch, blue, and other laundry preparations	15,477	May 22	43	890
Aseough, Jesse, Handsworth, near Birmingham, county of Stafford, England. Preparations for the toilet	15,562	June 5	43	1120
Aseough, Jesse, Handsworth, near Birmingham, county of Stafford, England. Laundry preparations	15,583	June 12	43	1242
Ashurst, William R., Farningham, county of Kent, England. Pulmonary sirup for human use	15,809	Aug. 28	41	948
Aspinwall, Henry E., Peckham, county of Surrey, England. Enamel	15,940	Oct. 16	45	238
Athenstaedt & Redeker, Hemelingen, near Bremen, Germany. Tincture of iron	16,027	Nov. 27	45	950
Atkinson, J. & E., London, England. Perfumes and perfumed articles for the toilet	15,681	July 17	41	236
Aultman, Miller & Company, Akron, Ohio. Harvesting-machines and parts thereof	15,705	July 24	41	346
Aurora Distilling Company, Aurora, Ind., and Cincinnati, Ohio. Whisky	15,608	June 19	43	1352
Austen, Edward W., Oswego, N. Y. Liquid tonic for women	15,454	May 15	43	760
Ayres & Sons, William, Philadelphia, Pa. Horse blankets, covers, and nets, saddle-housings, lap-ropes, and lap-dusters	15,100	Jan. 17	42	204
Ayres & Sons, William, Philadelphia, Pa. Horse-blankets	15,101	Jan. 17	42	204
Ayres & Sons, William, Philadelphia, Pa. Horse-blankets	15,117	Jan. 21	42	300
Ayres & Sons, William, Philadelphia, Pa. Horse-blankets	15,134	Jan. 31	42	386
Babillion, John, Detroit, Mich. Condensed milk	15,736	Aug. 7	41	572
Back & Co., David, Madison, Wis. Medical tea	15,348	Apr. 10	43	120
Baker, Samuel, Buffalo, N. Y. Whips	15,941	Oct. 16	45	238
Baker Wire Company, Des Moines, Iowa. Barbed fence-eable	15,361	Apr. 17	43	254
Baldwin & Co., A., New Orleans, La. Cultivator	15,455	May 15	43	760
Baldwin, Penrose, Lenoir, N. C. Liquid preparation to be applied externally to relieve headache and neuralgia	15,982	Nov. 6	45	594
Ballantine, Henry, New York, N. Y. Tonic medicine	15,628	June 26	43	1160
Baol, John H., W. Maegerlein, and A. Bruce, Chicago, Ill. Antiseptics for preserving perishable articles of food	15,737	Aug. 7	41	572
Banks & Co., H. W., New York, N. Y. Tea	16,054	Dec. 4	45	1072
Barbour & Hamilton, Washington, D. C. Flour	15,081	Jan. 10	42	100
Barker & Co., J. H., New York, N. Y. Flavoring-sirup for effervescing and other drinks	15,609	June 19	43	1352
Barranco & Co., M., New York, N. Y. Cigars	15,563	June 5	43	1120
Barranco & Co., M., New York, N. Y. Cigars	15,564	June 5	43	1120
Barrott, James, New York, N. Y. Prune-juice	15,942	Oct. 16	45	238
Bas-Relief Manufacturing Company, New York, N. Y. Plaster bas-reliefs, statuary, statuettes, moldings, and signs	15,380	Apr. 24	43	394

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Baxter, Hartley C., Portland, Me. Canned corn.....	16,028	Nov. 27	45	950
Beadleston & Woerz, New York, N. Y. Lager-beer.....	15,912	Oct. 2	45	2
Beaver & Co., Dayton, Ohio. Toilet and laundry soap.....	15,565	June 5	43	1120
Bechstein, C., Berlin, Germany. Piano-forti and pianinos.....	16,099	Dec. 18	45	1324
Beecher, Henry M., Binghamton, N. Y. Fruit sirup.....	16,053	Dec. 4	45	1072
Belknap, Carpenter & Co., Columbus, Ohio. Boots and shoes.....	15,682	July 17	44	236
Belmont Distillery Company, Louisville, Ky. Whisky.....	16,119	Dec. 25	45	1464
Bennett & Co., Lincoln, London, England. Hats, caps, and helmets.....	15,137	Jan. 31	42	386
Bennett & Co., Lincoln, London, England. Hats, caps, and helmets.....	15,133	Jan. 31	42	386
Bennett & Co., Lincoln, London, England. Hats, caps, and helmets.....	15,154	Jan. 31	42	386
Bensdorp & Co., Amsterdam, Holland. Preparations of cocoa and chocolate.....	15,479	May 22	43	890
Bensdorp & Co., Amsterdam, Netherlands. Soluble cocoa.....	15,629	June 26	43	1460
Berkshire Manufacturing Company, (limited,) Frankford, Pa. Giughams.....	15,584	June 12	43	1242
Berry, Henry (See Miller and Berry.)				
Berthold, Augustus, St. Louis, Mo. Salve.....	15,480	May 22	43	890
Berthold, Augustus, St. Louis, Mo. Salve.....	15,481	May 22	43	890
Best Brewing Company, Phillip, Milwaukee, Wis. Tonic beverage.....	15,213	Feb. 21	42	708
Best Brewing Company, Phillip, Milwaukee, Wis. Tonic nutrient beverage.....	15,354	Apr. 10	43	120
Betts & Company, (limited,) London, England. Capsules for medicinal or other use.....	16,009	Nov. 20	45	838
Bickford, Nelson N., New York, N. Y. Pastes for skin diseases and for purifying the complexion.....	16,082	Dec. 11	45	1196
Bierman, Heidelberg & Co., New York, N. Y. Outer clothing and overcoats.....	15,456	May 15	43	760
Billsland, Elizabeth, New York, N. Y. Eye-water.....	15,630	June 26	43	1460
Birge, George K., Buffalo, N. Y. Wall-paper.....	15,082	Jan. 10	42	100
Bitting & Hay, Winston, N. C. Manufactured plug chewing-tobacco.....	15,160	Feb. 7	42	494
Bitting & Hay, Winston, N. C. Plug chewing-tobacco, smoking-tobacco, cigars, and snuff.....	15,566	June 5	43	1120
Black Flag Stove Polish Company, Detroit, Mich. Blacking or polish for stoves.....	15,135	Jan. 31	42	386
Blackier, Francis W., Worcester, Mass. Boots and shoes.....	15,968	Oct. 30	45	464
Blackman, Phillie, New Haven, Conn. Chemical fluid mixed with oil-paints used on fabrics and rendering them washable.....	15,738	Aug. 7	41	572
Blake, Bruce & Co., Omaha, Nebr. Whisky.....	15,567	June 5	43	1120
Blake, Bruce & Co., Omaha, Nebr. Whisky.....	15,788	Aug. 21	44	826
Blank, Theodore, St. Louis, Mo. Compound of sulphate of quinine, sulphuric and salicylic acids, alcohol, and cochineal.....	15,810	Aug. 28	44	948
Blatz, Valentin, Milwaukee, Wis. Beer.....	15,349	Apr. 10	43	120
Bliss & Co., Winfield, Kans. Wheat-flour.....	16,029	Nov. 27	45	950
Bliss & Co., Winfield, Kans. Wheat-flour.....	16,030	Nov. 27	45	950
Blodgett, Frank M., New York, N. Y. Medicine to be applied to the nostrils and throat.....	15,136	Jan. 31	42	386
Bloomingdale Brothers, New York, N. Y. Dress-cloths, cashmeres, velvets, socks, stockings, and gloves.....	15,102	Jan. 17	42	204
Bloomingdale Bros., New York, N. Y. Certain named medicines.....	15,943	Oct. 16	45	238
Bloomingdale & Levy, New York, N. Y. Extracts, perfumes, oils, and soaps.....	15,631	June 26	43	1460
Bloomingdale & Levy, New York, N. Y. Extracts, perfumes, oils, and soaps.....	15,632	June 26	43	1460
Bloomingdale & Levy, New York, N. Y. Extracts, perfumes, oils, and soaps.....	15,633	June 26	43	1460
Boland, Claude M., New York, N. Y. Machine-needles and needles for hand-sewing.....	15,944	Oct. 16	45	238
Bonner & Co., G. H. London, England. Biscuits for dogs, horses, cattle, and other animals.....	15,362	Apr. 17	43	254
Boone, Joseph P., Galveston, Tex. Mixed teas.....	15,083	Jan. 10	42	100
Boord & Son, London, England. Gin, wine, whisky, rum, liqueurs, brandy, and other similar liquors.....	15,521	May 20	43	988
Boote, T. & R., Burslem, England. Printed, white granite, general earthenware, and glazed tiles.....	15,191	Feb. 21	42	728
Boott Cotton Mills, Lowell, Mass. Cotton-drills.....	15,913	Oct. 2	45	2
Boss & Son, C. D., New London, Conn. Crackers, biscuits, and kindred articles.....	15,227	Feb. 28	42	832
Bostwick, James, Detroit, Mich. Babbitt metal.....	15,289	Mar. 20	42	1172
Bottlers Protective Association, Baltimore, Md. Bottles.....	15,844	Sept. 11	44	1190
Bourjois, Alexandre N., Paris, France. Toilet-powders.....	15,963	Nov. 6	45	594
Bourne, Graham & Fell, New York, N. Y. Wheat-flour.....	15,363	Apr. 17	43	254
Bowanee Medicine Co., Dayton, Ohio. Preparation for the cure of dyspepsia and indigestion.....	16,072	Dec. 11	45	1196
Bowen's Sons, S., Philadelphia, Pa. Stains for mortars and cements.....	15,482	May 22	43	890
Bowker Fertilizer Company, Boston, Mass. Fertilizers.....	15,103	Jan. 17	42	204
Bowker Fertilizer Company, Boston, Mass. Commercial fertilizers.....	15,761	Aug. 14	44	702
Brearey, John E., London, county of Middlesex, England. Pomades for toilet use.....	15,666	July 10	44	112
Breyer, Charles A., Philadelphia, Pa. Paste soap.....	15,924	Nov. 6	45	594
Brigg, Neumann & Co., Bradford, county of York, England. Piece-goods of cotton, wool, cotton and wool, cotton and silk, or wool and silk.....	15,914	Oct. 2	45	2
Brigham, L. Stanton, Boston, Mass. Lotion for the skin.....	15,252	Mar. 6	42	966
Brinkerhoff Company, Auburn, N. Y. Certain picture supports or hangers.....	15,073	Jan. 3	42	2
Brinkmann, August H., Baltimore, Md. Dress-shields.....	15,610	June 19	44	1352
Briscoe & Son, William, London, county of Middlesex, England. Kerosene-oil.....	15,192	Feb. 21	42	728
Bristol, George W., Chicago, Ill. Books, papers, and envelopes used in the business of collecting debts.....	15,726	July 31	44	452
Broas, John S., Jersey City, N. J. Medicine for the treatment of gonorrhea and gleet.....	15,789	Aug. 21	44	826
Brooklyn Watch Case Company, Brooklyn, N. Y. Watch-cases.....	15,290	Mar. 20	42	1172
Brooklyn Watch Case Company, Brooklyn, N. Y. Watch-cases.....	15,292	May 29	43	988
Brookmire & Co., James H., St. Louis, Mo. Fresh oysters, lobsters, and fish.....	15,762	Aug. 14	44	702
Brooks, George W., Brooklyn, N. Y. Rheumatic and gout medicines.....	15,931	Oct. 9	45	130
Brown, George M., and J. M. Hunnicutt, Atlanta, Ga. Medicine for the cure of all throat and lung diseases.....	15,178	Feb. 14	42	618
Brown, James S., Pittsburg, Pa. Remedy for catarrh.....	16,031	Nov. 27	45	950
Brown, Joseph H., Fort Worth, Tex. Pork and beef products and lard.....	15,886	Sept. 25	44	1404
Brown, Joseph H., Fort Worth, Tex. Roasted coffee.....	15,907	Sept. 25	44	1404
Bruce, Alexander. (See Bani, Maegerlein, and Bruce.)				
Bruton & Deaderick, Nashville, Tenn. Dentifrices.....	15,845	Sept. 11	44	1190
Buchanan, Bromley & Co., Philadelphia, Pa. Albumenized paper for photographic use.....	15,193	Feb. 21	42	728
Buchliuder, Leopold, Philadelphia, Pa. Fire-extinguishing powder.....	15,687	Sept. 25	44	1104
Buckeye Medicine Co., Kent, Ohio. Medicine for rheumatism and kidney diseases.....	15,739	Aug. 7	44	572
Burdett, Oliver S., New Orleans, La. Concrete gravel.....	15,862	Sept. 11	44	1190
Burdick, Martha, Baltimore, Md. Medicinal lotions for removing blemishes from the skin.....	15,863	Sept. 11	44	1190
Burrell & Co., D. H., Little Falls, N. Y. Ensilage corn.....	15,194	Feb. 21	42	728
Burroughs, Charles S., Clinton and Detroit, Mich. Dyes.....	16,032	Nov. 27	45	950
Burton, George D., Boston, Mass. Railway stock-cars.....	15,683	July 17	44	236
Bush Manufacturing Company, J. P., Chicago, Ill. Beef-junice.....	15,964	Oct. 23	45	350
Butler Brothers, Chicago, Ill., and New York, N. Y. Hard soap.....	15,483	May 22	43	890
Buzzell, James M., Portland, Me. Liquid vegetable blood-cordial.....	15,821	Sept. 4	44	1072
Cabot, Samuel, Boston, Mass. Fire-proof paints.....	15,763	Aug. 14	44	702
Callahan, Julia A., New York, N. Y. Blood-purifying medicine.....	15,740	Aug. 7	44	572



*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Cameron & Co., A. J., Philadelphia, Pa., Chicago, Ill., and New York, N. Y. Worsted and woolen yarns.	15,228	Feb. 28	42	832
Cammeyer, Alfred J., New York, N. Y. Boots and shoes of all descriptions.	15,684	July 17	44	236
Canfield, Henry Y., New York, Brooklyn, Washington, and Unadilla, N. Y. Condensed milk	15,764	Aug. 14	44	702
Canterbury, Ludie A., Brownwood, Tex. Salve	15,195	Feb. 21	42	728
Carpenter & Co., E. F., Jamestown, N. Y. Axes	15,074	Jan. 3	42	2
Carrot, T. (See Rivoire and Carret.)				
Carroll, Benjamin F. (See Carroll, Robert R. and B. F.)				
Carroll, Robert R. and B. F., Chicago, Ill. Corn brooms	15,158	Jan. 31	42	326
Canchois, Frederic A., New York, N. Y. Tea	15,085	Jan. 10	42	100
Chace, Adoniram J., and S. L. Wood, Fall River, Mass. Cotton twine	16,033	Nov. 27	45	950
Chaffe, Robert H., New Orleans, La. Molasses and sirup	16,010	Nov. 20	45	838
Chase, Merritt & Co., Boston, Marlborough, and Milford, Mass. Men's boots and shoes	15,381	Apr. 24	43	394
Chase & Sanborn, Boston, Mass. Coffee	15,457	May 15	43	760
Chase & Sanborn, Boston, Mass. Coffee and coffee compounds	15,869	Sept. 18	44	1296
Chase & Sanborn, Boston, Mass. Coffee and coffee compounds	16,034	Nov. 27	45	950
Chase & Sanborn, Boston, Mass. Coffee and coffee compounds	16,035	Nov. 27	45	950
Chase, William D., New York, N. Y. Chewing-gum	15,685	July 17	44	236
Chicago Sawed Salt-Block Company, Chicago, Ill. Blocks of natural salt	15,174	Feb. 14	42	618
China and Japan Trading Company, (limited,) New York, N. Y. Woven cotton and woolen fabrics				
Churchill & Co., Toronto, Ontario, Canada. Baking-powder and hop yeast	15,484	May 22	43	890
Cincinnati Desiccating Company, Cincinnati, Ohio. Fertilizer	15,741	Aug. 7	41	572
Cincinnati Desiccating Company, Cincinnati, Ohio. Fertilizer	15,330	Apr. 3	43	2
Clark, Fairhead & Co., Jacksonville, Fla. Cypress shingles	15,523	May 29	43	988
Clark, Fairhead & Co., Jacksonville, Fla. Cypress shingles	15,524	May 29	43	988
Clark, James B., New York, N. Y. Flavoring-extracts for food	16,100	Dec. 18	45	1324
Clark, James H., New York, N. Y. Corsets	15,291	Mar. 20	42	1172
Clay, Arthur T. (See Clay, John W. and A. T.)				
Clay, John W. and A. T., Rastrick, county of York, England. Worsted and woolen goods for wearing-apparel	16,036	Nov. 27	45	950
Cleveland, Charles F., Indianapolis, Ind. Medical powders	15,485	May 22	43	890
Clinton Metallic Paint Company, Kirkland, N. Y. Metallic paint manufactured from the red oxide of iron	15,790	Aug. 21	44	826
Clotworthy, Wm. F., Baltimore, Md. Farinaceous compound with fruit flavorings	15,742	Aug. 7	44	572
Cobb, Wight & Co., Rockland, Me. Japan and Oolong tea	15,458	May 15	43	760
Coffin, Redington & Co., New York, N. Y. Powder, soap, and compounds for cleaning and polishing metals	15,292	Mar. 20	42	1172
Coffin & Wood Chemical Company, Detroit, Mich. Extracts or sirups for making a beverage	15,650	July 3	44	2
Cohen, Abraham, Boston, Mass. Cotton underwear	15,486	May 22	43	890
Cohen, Benjamin M. (See Stiefel and Cohen.)				
Colby, William F., Quincy, Mass. Bitters	16,101	Dec. 18	45	1324
Colcord, Samuel, New York, N. Y. Various medical compounds named	15,311	Mar. 27	42	1291
Cole & Co., J. W., Black River Falls, Wis. Blood-renewer and alterative tonic	16,011	Nov. 20	45	838
Colgate & Co., New York, N. Y. Soap	15,086	Jan. 10	42	100
Columbia Manufacturing Company, Boston, Mass. Hard soap for laundry and general purposes	15,525	May 29	43	988
Colwell Lead Company, New York, N. Y. Plumbers' earthenware	15,087	Jan. 10	42	100
Commission de Surveillance et de Controle de la Marque Municipale pour les Soieries Tissées à Lyon, Lyons, France. Silk dress-goods	16,109	Dec. 25	45	1464
Connolly, John L., New York, N. Y. Remedy for dyspepsia, liver complaint, and consumption	15,651	July 3	44	2
Conroy, John S., New York, N. Y. Newspapers	15,382	Apr. 24	43	394
Consolidated Agency Company, (limited,) London, England. Pens, inks, and nibs	16,012	Nov. 20	45	838
Cook, Lyman, Smith & Company, Chicago, Ill. Men's soft and stiff fur and wool hats	15,331	Apr. 3	43	2
Co-Operative Wholesale Society, (limited,) Manchester, London, and Newcastle-upon-Tyne, England, and New York, N. Y. Hog meats and lard	15,822	Sept. 4	44	1072
Co-Operative Wholesale Society, (limited,) Manchester, London, and Newcastle-upon-Tyne, England, and New York, N. Y. Flour	15,846	Sept. 11	44	1190
Copperthite & Co., H., Washington, D. C. Pies	16,037	Nov. 27	45	950
Corbett, John, Stoke Prior Salt Works, near Bromsgrove, county of Worcester, and London, England. Salt	15,420	May 8	43	636
Corbett, John, Stoke Prior Salt Works, near Bromsgrove, county of Worcester, and London, England. Salt	15,421	May 8	43	636
Corbett, John, Stoke Prior Salt Works, near Bromsgrove, county of Worcester, and London, England. Salt	15,888	Sept. 25	44	1404
Corbett, John, Stoke Prior Salt Works, near Bromsgrove, county of Worcester, and London, England. Salt	16,001	Nov. 13	45	714
Corby, Henry, Belleville, Ontario, Canada. Whisky	15,611	June 19	43	1352
Cornwell & Son, G. G., Washington, D. C. Whisky	16,013	Nov. 20	45	838
Cramer & Kersten, Charleston, S. C. Beer	15,634	June 26	43	1460
Crocker & Co., H. S., San Francisco, Cal. Water-closet paper	15,635	June 26	43	1460
Crocker & Co., H. S., San Francisco, Cal. Blotting-paper in sheets and pads	15,636	June 26	43	1460
Crocker & Co., H. S., San Francisco, Cal. Water-closet paper	15,637	June 26	43	1460
Crocker & Co., H. S., San Francisco, Cal. Note-paper	15,994	Nov. 13	45	714
Crocker Fertilizer and Chemical Company, Buffalo, N. Y. Superphosphates or fertilizing materials	15,294	Mar. 20	42	1172
Crown Mills Company, Belleville, Ill. Wheat-flour	16,014	Nov. 20	45	838
Crown Perfumery Co., London, England. Perfumery soaps, cosmetics, hair-oils, perfumes, tooth-paste, &c.	15,965	Oct. 23	45	350
Cuervo, Gumersindo G., Havana, Cuba. Cigars	15,743	Aug. 7	44	572
Cuervo, Gumersindo G., Havana, Cuba. Cigars	15,744	Aug. 7	44	572
Cuervo, Gumersindo G., Havana, Cuba. Cigars	15,745	Aug. 7	44	572
Cuervo, Gumersindo G., Havana, Cuba. Cigars	15,705	Aug. 21	44	826
Cunningham & De Fourier Company, (limited,) London, England. Preserved meats	16,083	Dec. 11	45	1196
Cunningham & De Fourier Company, (limited,) London, England. Preserved meats	16,084	Dec. 11	45	1196
Curtice Brothers Company, Rochester, N. Y. Canned fruits and vegetables	15,889	Sept. 25	44	1404
Curtis, Charles W., London, England. Gunpowder	15,727	July 31	44	452
Curtis, Charles W., London, England. Gunpowder, ammunition, and explosives	15,811	Aug. 28	44	948
Cushing, Ira B., Brookline, Mass. Catarrh remedy	15,332	Apr. 3	43	2
Cusimano Bros., New Orleans, La., and Palermo, Italy. Olive-oil	15,459	May 15	43	760
Dalman, Esteve & Co., San Felu de Guixols, Spain, and New Orleans, La. Corks	15,075	Jan. 3	42	2
Daniel, Asa B., Birmingham, Ala. Medicine for the cure of scrofula, syphilis, and malaria	15,823	Sept. 4	44	1072
Darlington, Runk & Co., Philadelphia, Pa. Corsets	15,824	Sept. 4	44	1072
Davenport, J. A. & D. F., Americus, Ga. Medicinal lotion for the skin	15,244	Feb. 28	42	832
Davenport, J. T., London, England. Medicinal preparation for use in certain named diseases	15,104	Jan. 17	42	204
Davidson Company, Thaddeus, New York, N. Y. Inks	15,706	July 24	44	346
Davidson & Knowles Company, New York, N. Y. White-lead paint	15,995	Nov. 13	45	714

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Davies, Joseph P., Dayton, Ohio. Laundry-soaps .....	15,985	Nov. 6	45	594
Davis, James E., Detroit, Mich. Whisky .....	15,526	May 29	43	988
Davis & Son, James C., Boston, Mass. Soap .....	15,253	Mar. 6	42	966
Dawsonamel Company, New York, N. Y. Enameling preparations .....	15,969	Oct. 30	45	464
Dearborn Manufacturing Company, Chicago, Ill. Candles .....	15,791	Aug. 21	44	826
Delafield, Morgan, Kissel & Co., New York, N. Y. Dried or preserved fruits .....	15,890	Sept. 25	44	1404
Delafield, Morgan, Kissel & Co., New York, N. Y. Canned lobster and salmon .....	15,891	Sept. 25	44	1404
Delafield, Morgan, Kissel & Co., New York, N. Y. Dried or preserved fruits .....	15,892	Sept. 25	44	1404
Demarest & Joralemon, New York, N. Y. Gilling-thread .....	15,312	Mar. 27	42	1294
Deschamps, Frères, Vieux-Jeand'Heurs, Meuse, France. Ultramarine .....	15,402	May 1	43	514
Dey, Gustav, Cleveland, Ohio. Compound for mixing with coffee .....	16,102	Dec. 18	45	1324
Diamond Crystal Salt Company, St. Clair, Mich. Table and dairy salt .....	15,422	May 8	43	636
Dietrich, Valentine, New York, N. Y. Food for infants .....	15,295	Mar. 30	42	1172
Dios Chemical Company, St. Louis, Mo. Medicinal preparation for uterine diseases .....	15,638	June 26	43	1460
Dobson, C. Edgar, New York, N. Y. Banjos .....	15,277	Mar. 13	42	1066
Dodge Manufacturing Company, Mishawaka, Ind. Rope for transmission of power over pulleys and for hoisting purposes .....	15,105	Jan. 17	42	204
Dodge Manufacturing Company, Mishawaka, Ind. Rope for transmitting power over pulleys and for hoisting purposes .....	15,118	Jan. 24	42	300
Donnelly, Joseph M., College Point, N. Y. Malt and carbonated beverages .....	15,527	May 29	43	988
Donovan, John. (See Kenney, Donovan, and Rodway.)				
Donovan French Perfumery Company, New Orleans, La. Perfumery .....	15,487	May 22	43	890
Druid Felt Company, Baltimore, Md. Roofing fabric .....	15,728	July 31	44	452
Dryfoos & Co., L., New York, N. Y. Ladies' skirts .....	16,085	Dec. 11	45	1196
Drysdale & Co., Thomas, New York, N. Y. Spades, shovels, and agricultural implements .....	15,383	Apr. 24	43	394
Dublin Whisky Distillery Company, (limited,) Dublin, Ireland. Whisky .....	15,229	Feb. 28	42	832
Duke, Sons & Company, W., Durham, N. C., and New York, N. Y. Long-cut smoking and chewing tobacco .....	15,970	Oct. 30	45	464
Dunlap, Lawton & Hall, Chicago, Ill. Rubber boots, shoes, umbrellas, and conducting-hose .....	15,488	May 22	43	890
Durant & Co., Trinidad, British West Indies. Bitters .....	15,423	May 8	43	636
Duttlinger, Frederick, St. Louis, Mo. Floor-gloss .....	16,015	Nov. 20	45	838
Eastman Dry Plate and Film Company, Rochester, N. Y. Photographic cameras and sensitized plates and films therefor .....	15,825	Sept. 4	44	1072
Eberlein, Frederick, Chicago, Ill. Certain named medical remedies .....	15,812	Aug. 28	44	948
Eclipse Cement Co., Philadelphia, Pa. Shoe polish or dressing .....	15,424	May 8	43	636
Edel, Samuel T., Sr., Baltimore, Md. Butter in prints .....	15,652	July 3	44	2
Edwards & Co., H. D., Detroit, Mich. Rubber belting .....	15,155	Jan. 31	42	386
Edwards & Co., H. D., Detroit, Mich. Rubber belting .....	15,156	Jan. 31	42	386
Eisner & Mendelson Company, Philadelphia, Pa. Natural mineral water and salt .....	15,175	Feb. 14	42	618
El Modelo Cigar Manufacturing Co., Jacksonville, Fla. Cigars .....	15,568	June 5	43	1120
Electron Manufacturing Company, Philadelphia, Pa. Cleansing soap or compound of an abrasive character .....	15,792	Aug. 21	44	826
Elgin National Watch Company, Chicago, Ill. Watches .....	15,425	May 8	43	636
Elgin National Watch Company, Chicago, Ill. Watches .....	15,426	May 8	43	636
Elgin National Watch Company, Chicago, Ill. Watches .....	15,427	May 8	43	636
Elgin National Watch Company, Chicago, Ill. Watches .....	15,452	May 8	43	636
Elsworth, Edward, New York, N. Y. Steam-cooked cereals .....	15,765	Aug. 14	44	702
Elwin, James, Minneapolis, Minn. Cigars and smoking and chewing or plug tobacco .....	15,585	June 12	43	1242
Ely, Collins & Hale, St. Louis, Mo., and Philadelphia, Pa. Feather pillows and bags of feathers .....	15,847	Sept. 11	44	1190
Empire Refining Company, (limited,) New York, N. Y. Kerosene .....	15,848	Sept. 11	44	1190
Enterprise Coffee Company, Baltimore, Md. Roasted coffee .....	15,460	May 15	43	760
Enterprise Coffee Company, Baltimore, Md. Mixed tea .....	15,461	May 15	43	760
Enterprise Coffee Company, Baltimore, Md. Roasted coffee .....	15,462	May 15	43	760
Eureka Fire Hose Company, New York, N. Y. Hydraulic hose .....	15,528	May 29	43	988
Fairbank & Company, N. K., Chicago, Ill.; St. Louis, Mo.; New York, N. Y., and Omaha, Nebr. Detergent or cleansing powders .....	15,161	Feb. 7	42	494
Fairbank & Company, N. K., Chicago, Ill. Family soap .....	15,849	Sept. 11	44	1190
Farbentfabriken, vormals Fr. Bayer & Co., Elberfeld, Prussia, Germany. Soporific preparation containing carbon, hydrogen, and oxygen .....	15,986	Nov. 6	45	594
Farmers Fertilizer Company, Syracuse, N. Y. Bone fertilizers .....	16,110	Dec. 25	45	1464
Farnum & Co., John, Philadelphia, Pa. Gingham, tickings, and all cotton goods .....	15,529	May 29	43	988
Farnum & Co., John, Philadelphia, Pa. Gingham, tickings, and cotton goods .....	15,793	Aug. 21	44	826
Farrand, Williams & Co., Detroit, Mich. Paints, varnishes, dry colors, and paint ingredients .....	15,313	Mar. 27	42	1294
Farwell & Rhines, Watertown, N. Y. Wheat-flour .....	15,314	Mar. 27	42	1294
Farwell & Rhines, Watertown, N. Y. Wheat-flour .....	15,315	Mar. 27	42	1294
Faust & Son, J., Baltimore, Md. Ladies' shoes .....	15,296	Mar. 20	42	1172
Fawcett Durham Tobacco and Snuff Co., Durham, N. C. Smoking-tobacco .....	15,870	Sept. 18	44	1296
Fay, Philipp H., Frankfort-on-the-Main, Germany. Mineral water, lozenges, mineral salts and powders, being the products, natural and prepared, of the Soden mineral springs .....	16,016	Nov. 20	45	838
Feeney, William P., New York, N. Y. Lubricating-oil .....	15,254	Mar. 6	42	966
Fehl & Co., G., St. Louis, Mo. Cigars .....	15,893	Sept. 25	44	1404
Fenno, Robert F., New Orleans, La. Base-ball goods and outfits .....	15,196	Feb. 21	42	728
Fenton, Anrilla B., Buffalo, N. Y. Canned fruits, vegetables, meats, poultry, and jellies .....	15,915	Oct. 2	45	2
Filkins Bros., Drs., Albany and Rochester, N. Y. Catarrh specific .....	15,686	July 17	44	236
Finn & Sons, H., Syracuse, N. Y. Soap in bars .....	15,729	July 31	44	452
Finneran, Charles. (See Tuttle and Finneran.)				
Finnigan & Son, O., Philadelphia, Pa. Shoes .....	16,086	Dec. 11	45	1196
Fischbeck & Son, D., Milwaukee, Wis. Leather fly-nets .....	15,612	June 19	43	1352
Fischer & Heinrichs, New York, N. Y. Wines, whiskies, brandies, and other distilled spirits .....	15,197	Feb. 21	42	728
Fishburne Bros., Roanoke City, Va. Smoking and chewing tobacco .....	15,403	May 1	43	514
Fishburne Bros., Roanoke, Va. Smoking and chewing tobacco .....	15,428	May 8	43	636
Fisher, Lew, Crawfordsville, Ind. Liniment for internal and external use .....	15,106	Jan. 17	42	204
Fisk, Mary F., and F. H. Leavitt, Boston, Mass. Toilet cream .....	15,850	Sept. 11	44	1190
Fleming, Howard, New York, N. Y. Cement .....	15,230	Feb. 28	42	832
Fly & Co., David R., Galveston, Tex. Pills, liniment, tonic, cough-sirup, and female regulator .....	15,489	May 22	43	890
Foley, John, New York, N. Y. Gold pens .....	15,530	May 29	43	988
Foote, Charles E., and C. C. Jenks, Jackson, Mich. Perfumery .....	16,103	Dec. 18	45	1324
Forestville Canning Company, Hanover, N. Y., and Cleveland, Ohio. Extract of green corn .....	16,120	Dec. 25	45	1464
Fountain, Vincent, New York, N. Y. Boxes adapted to contain prepared tobacco, candy, and similar articles .....	16,111	Dec. 25	45	1464
Fowler, Ernest S., Chicago, Ill. Spectacles and eyeglasses .....	15,766	Aug. 14	44	702
Fowler, Joseph, Glens Falls, N. Y. Collars and cuffs .....	15,687	July 17	44	236
Fox & Company, (limited,) Samuel, Deepcar, near Sheffield, county of York, England. Umbrella-blades and parts thereof .....	15,826	Sept. 4	44	1072

## Alphabetical list of registrants of trade-marks—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Fox & Company, (limited,) Samuel, Deepcar, near Sheffield, county of York, England. Umbrella-frames and parts thereof	15,827	Sept. 4	44	1072
Fox, Jared C. (See McPike and Fox.)				
Fragner, B., Prague, Bohemia, Austria-Hungary. Pharmaceutical and medical preparations generally	15,350	Apr. 10	43	120
Fragner, B., Prague, Bohemia, Austria-Hungary. Liquid medicine for internal use and for certain diseases	15,569	June 5	43	1120
Franklin, Albert G., Summit, R. I. Medical cordials	15,894	Sept. 25	44	1404
Fraser, George, Worcester, Mass. Cattle-food	15,255	Mar. 6	42	966
Freeman Manufacturing Company, North Adams, Mass. Cotton prints	15,316	Mar. 27	42	1294
Freeman, W. D., Cincinnati, Ohio. Perfumes, both liquid and dry	15,915	Oct. 16	45	238
Friedlander & Koch, New York, N. Y., and San Francisco, Cal. Hats and caps	15,091	Jan. 10	42	100
Friess, Joseph, New York, N. Y. Tea	15,794	Aug. 21	44	826
Frost & Co., George, Boston, Mass. Garters	15,198	Feb. 21	42	728
Gage, James C., Stockton, Cal. Condition-powders	15,333	Apr. 3	43	2
Gage, Paul, Fils, Paris, France. Elixir against glairs	15,828	Sept. 4	44	1072
Gage, Paul, Fils, Paris, France. Elixir against glairs	15,829	Sept. 4	44	1072
Gage, Paul, Fils, Paris, France. Elixir against glairs	15,830	Sept. 4	44	1072
Gall & Branch, Port Byron and New York, N. Y. Shirts, coats, jackets, and overalls	15,199	Feb. 21	42	728
Gambrell Manufacturing Company, C. A., Baltimore, Md. Wheat-flour	16,121	Dec. 25	45	1464
Gans & Miller, Brooklyn, N. Y. Baking-powder	15,688	July 17	44	236
Garden & Co., C. H., Philadelphia, Pa. Men's and boys' hats	15,689	July 17	44	236
Gardner, E. Nelson, Baltimore, Md. Flour	15,667	July 10	44	112
Garst, Julius, North Brookfield, Mass. Anodyne pills	16,112	Dec. 25	45	1464
Gates, N. B., Claquato, Wash. Ter., and E. T. Smith, Worcester, Mass. Fluid medicine for diseases of the liver and stomach	15,946	Oct. 16	45	238
Gautier Frères, Aigre, Charante, France. Cognac brandy	15,871	Sept. 18	44	1296
Gautier Frères, Aigre, Charante, France. Cognac brandy	15,872	Sept. 18	44	1296
Gedge, Donald M., San Francisco, Cal. Flour	15,800	Aug. 21	44	826
Gedde, Donald M., San Francisco, Cal. Flour	15,864	Sept. 11	44	1190
Gedney, James W., New York, N. Y. Capsules containing medicine	15,176	Feb. 14	42	618
Gem City Stove Company, Dayton, Ohio. Gas-stoves	15,531	May 29	43	988
Gentleman, John R., Brooklyn, N. Y. Soap-powder	15,162	Feb. 7	42	494
German Linoleum Manufacturing Company, (limited,) Bremen and Delmenhorst, Oldenburg, Germany. Linoleum	15,767	Aug. 14	44	702
Gessler, Max, Milwaukee, Wis. Medicated wafers	15,895	Sept. 25	44	1404
Giering, Anna. (See Giering, Joseph and A.)				
Giering, Joseph and A., Baltimore, Md. Remedy for skin diseases	15,334	Apr. 3	43	2
Gilbert, Waugh & Co., Mansfield, Ohio. Roller-process flour	15,297	Mar. 20	42	1172
Gilbert, Waugh & Co., Mansfield, Ohio. Fancy winter-wheat patent flour	15,317	Mar. 27	42	1294
Gipps Brewing Company, Peoria, Ill. Lager-beer	15,550	June 5	43	1120
Girardon, Antoine, Vallorbe, Vaud, Switzerland. Tools used in engraving on metal	15,896	Sept. 25	44	1404
Goldberg, Levi H., Clarksville, Tex. Liniment	15,916	Oct. 2	45	2
Goodsell, Byron W., Chicago, Ill. Piston-packings	16,038	Nov. 27	45	950
Gordon, Louise H., Boston, Mass. Toilet application for the skin	15,491	May 22	43	890
Gostling & Company, (limited,) John C., London, England, and New York, N. Y. Portland cement	15,813	Aug. 28	44	948
Gotzian & Company, C., St. Paul, Minn. Shoes for men, misses, ladies, and children	15,429	May 8	43	636
Gradle & Strotz, Chicago, Ill. Smoking and chewing tobacco	15,492	May 22	43	890
Gradle & Strotz, Chicago, Ill. Smoking and chewing tobacco	15,831	Sept. 4	44	1072
Gravelly & Sons, B. F., Leatherwood, Va. Flue-cured smoking and chewing tobacco	15,947	Oct. 16	45	238
Greenwood Horse Shoe Company, Philadelphia, Pa. Horse and mule shoes	15,463	May 15	43	760
Grehier, Léon, New York, N. Y. Dress-goods	16,039	Nov. 27	45	950
Griffing Iron Company, A. A., Jersey City, N. J., and Chicago, Ill. Radiators	15,278	Mar. 13	42	1066
Griffing Iron Company, A. A., Jersey City, N. J., and Chicago, Ill. Radiators	15,404	May 1	43	514
Griffith, William H., New York, N. Y. Remedies for rheumatism, gout, &c.	15,948	Oct. 16	45	238
Griffith's Pyrodene Fireproofing Company, (limited,) London, England. Compound for fireproofing	15,119	Jan. 24	42	300
Griggs, A. Irving, New York, N. Y. Embossed sheet-metal stove-boards	15,814	Aug. 28	44	948
Grisbaugh, Herman G., Kansas City, Mo. Antiseptic or blood-purifying medicine	15,586	June 12	43	1242
Griswold, Catharine A., New York, N. Y. Corsets	15,493	May 22	43	890
Griswold, Catharine A., New York, N. Y. Corsets	15,494	May 22	43	890
Groder & Co., Geo., Waterville, Me. Remedy for dyspepsia	15,668	July 10	44	112
Gronmes & Ulrich, Chicago, Ill. Key West cigars	15,335	Apr. 3	43	2
Guinness, Son & Company, (limited,) Arthur, London, England. Beer	15,464	May 15	43	760
Gwynell, John M., Newark, N. J. Harness-soap	15,495	May 22	43	890
Haeutze, Charles H., Philadelphia, Pa. Throat and lung balsam, liver-pills, pain-plasters, and nerve-line	15,957	Oct. 23	45	350
Hahn, Gustav, Omaha, Nebr. Pills	16,040	Nov. 27	45	950
Halford, William, deceased; W. C. Nicholson, Boston, Mass., administrator. Table-sauce	16,124	Dec. 25	45	1464
Halford, William, deceased; W. C. Nicholson, Boston, Mass., administrator. Table-sauce	16,125	Dec. 25	45	1464
Hall & Co., Alvah, New York, N. Y. Umbrellas	15,690	July 17	44	236
Hall & Ruckel, New York, N. Y. Certain named toilet preparations	15,707	July 24	44	346
Hambleton, William H., Philadelphia, Pa., and R. Vom Cleff, New York, N. Y. Razors	15,747	Aug. 7	44	572
Hamilton Brown Shoe Company, St. Louis, Mo. Rubber hoots and shoes	15,851	Sept. 11	44	1190
Hamilton Brown Shoe Company, St. Louis, Mo. Rubber boots and shoes	15,897	Sept. 25	44	1404
Hammel & Co., L., New York, N. Y. Mainsprings for time-pieces	15,200	Feb. 21	42	728
Hamnitt & Co., Chas. K., New York, N. Y. Tea	15,120	Jan. 24	42	300
Hanan, John H., New York, N. Y. Leather, cloth, and rubber boots and shoes	15,571	June 5	43	1120
Hance Brothers & White, Philadelphia, Pa. Medicinal extracts, pills, elixirs, and chemicals	15,364	Apr. 17	43	254
Hanes & Co., P. H., Winston, N. C. Plug, twist, and fancy tobacco	16,056	Dec. 4	45	1072
Hargrave & Son, J. H., Chatham, Va. Plug-tobacco for chewing	15,405	May 1	43	514
Harper, Martha M., Rochester, N. Y. Hair-tonic	15,572	June 5	43	1120
Harper & Reynolds Company, Los Angeles, Cal. Rubber hose	15,496	May 22	43	890
Harries, Oscar L., Buffalo, N. Y. Powders and pills	16,042	Nov. 27	45	950
Harris, Thaddeus W., New York, N. Y. Cigars and cigarettes	16,041	Nov. 27	45	950
Hartmann, Paul, Heidenheim, Württemberg, Germany. Wood-wool and wood-wool wadding	15,256	Mar. 6	42	966
Hartshorn, Stewart, East Newark, N. J. Spring shade-rollers	15,865	Sept. 11	44	1190
Havens, Geddes & Co., Terre Haute, Ind. Shirts and drawers	15,691	July 17	44	236
Hawkins & Co., Colin M., Raleigh, N. C. Dowle or finely-divided portions of feathers resembling down	15,532	May 29	43	988
Hawley & Hoops, New York, N. Y. Plain chocolate for use in cooking and as a confection	15,163	Feb. 7	42	494
Hawley & Hoops, New York, N. Y. Candy	15,201	Feb. 21	42	728
Hayworth & Dewhurst, (limited,) Pittsburg, Pa. Roasted coffee	15,669	July 10	44	112
Healey & Co., New York, N. Y. Pleasure carriages	15,365	Apr. 17	43	254

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title,	No.	Date.	Official Gazette.	
			Vol.	Page.
Heath, Robert F. S., Camden, N. J. Solid polishing compound for laundry purposes .....	15,088	Jan. 10	42	100
Heath, Robert F. S., Camden, N. J. Laundry-blue .....	15,202	Feb. 21	42	728
Heath, Robert F. S., Camden, N. J. Liquid shoe-dressing .....	15,430	May 8	43	636
Heath, Robert F. S., Camden, N. J. Liquid shoe-dressing .....	15,653	July 3	44	2
Hecker & Co., George V., New York, N. Y. Wheat-flour .....	15,573	June 5	43	1120
Heinze & Co., Otto, New York, N. Y. Hosiery .....	15,351	Apr. 10	43	120
Heisel, Charles T., Cleveland, Ohio. Chewing-gum .....	15,121	Jan. 24	42	300
Heisel, Charles T., Cleveland, Ohio. Chewing-gum .....	15,533	May 29	43	988
Heisel, Charles T., Cleveland, Ohio. Chewing-gum .....	15,748	Aug. 7	44	572
Heisel, Charles T., Cleveland, Ohio. Chewing-gum .....	15,768	Aug. 14	44	702
Heiser, Samuel, Sioux City, Iowa. Veterinary ointment .....	15,670	July 10	44	112
Helburn, Julius, New York, N. Y. Goat and sheep skin leather .....	15,692	July 17	44	236
Henderson, Adams & Co., Weedsport, N. Y. Mince-meat for pies .....	15,107	Jan. 17	42	204
Hendricks, John, New York, N. Y. Lithographic and printing inks .....	16,057	Dec. 4	45	1072
Herrdon & Co., Robert H., Danville, Va. Plug or chewing tobacco .....	16,058	Dec. 4	45	1072
Herring, Doane, Wilson, N. C. Headache-cure .....	16,002	Nov. 13	45	714
Higgins, George, Omaha, Nebr. Pills .....	15,231	Feb. 28	42	832
Highland Slate Manufacturing Company, Portland and Brownville, Me., and Boston, Mass. Pulverized slate .....	15,384	Apr. 24	43	394
Hill, Edwin F., Springfield, Ohio. Embalming-fluid .....	15,613	June 19	43	1352
Hill & Greene, Beverly, Mass. Boots and shoes .....	15,693	July 17	44	236
Hiller, F., Jr., San Francisco, Cal. Cough cure and certain proprietary medicines in the form of tablets .....	15,245	Feb. 28	42	832
Hinkle, Greenleaf & Co., Minneapolis, Minn. Flour .....	16,059	Dec. 4	45	1072
Hodgson & Co., Binghamton, N. Y. Washing-powder .....	15,671	July 10	44	112
Hoehl Gebrüder, Geisenheim, Prussia, Germany. Sparkling wines .....	15,177	Feb. 14	42	618
Hoff, Johann, Berlin, Germany. Malt extract .....	15,164	Feb. 7	42	494
Hofmeier, Julius, Vienna, Austria-Hungary. Flexible material analogous to leather, called "sky-togen" .....	16,043	Nov. 27	45	950
Hollwedel, William F., Brooklyn, N. Y. Porter, ale, stout, lager-beer, and soda and mineral waters .....	15,654	July 3	44	2
Holmes & Coutts, New York, N. Y. Biscuits, crackers, wafers, and similar articles .....	15,203	Feb. 21	42	728
Holmes & Coutts, New York, N. Y. Biscuits, crackers, wafers, and similar articles .....	15,204	Feb. 21	42	728
Holmes & Edwards Silver Company, West Stratford, Conn. Metallic table-ware, both hollow and flat .....	15,431	May 8	43	636
Holmes & Edwards Silver Company, West Stratford, Conn. Metallic table-ware, both hollow and flat .....	15,432	May 8	43	636
Holmes & Edwards Silver Company, West Stratford, Conn. Metal table-ware .....	15,490	May 22	43	890
Holmes & Edwards Silver Company, West Stratford, Conn. Metal table-ware .....	15,898	Sept. 25	44	1404
Holmes, Francis M., Boston, Mass. Flour and meal containing leavening properties .....	15,298	Mar. 20	42	1172
Holyoke Envelope Company, Holyoke, Mass. Envelope-paper and envelopes .....	15,122	Jan. 24	42	300
Holyoke Envelope Company, Holyoke, Mass. Envelope-paper and envelopes .....	15,123	Jan. 24	42	300
Holyoke Envelope Company, Holyoke, Mass. Envelope-paper and envelopes .....	15,124	Jan. 24	42	300
Hopkins, Henry H., Hillsdale, Mich. Indian blood remedy .....	15,640	June 26	43	1460
Horlick, Alexander, Racine, Wis. Medicated foods .....	15,587	June 12	43	1242
Horlick, Alexander, Racine, Wis. Medicated foods for men and animals, and sirups, balsams, and ointments .....	15,708	July 24	44	346
Horne, William H., and W. H. Abel, Los Angeles, Cal. Medicines for coughs and colds and lung difficulties .....	15,971	Oct. 30	45	464
Horne, A. F. & J. Wm., Baltimore, Md. Oil grain-leather boots and shoes .....	15,089	Jan. 10	42	100
Horseay Manufacturing Co., Utica, N. Y. Tooth powder or preparation .....	15,497	May 22	43	890
Horseay Manufacturing Co., Utica, N. Y. Tooth brushes and polishers .....	15,574	June 5	43	1120
Horseay Manufacturing Co., Utica, N. Y. Tooth brushes and polishers .....	15,575	June 5	43	1120
Horst & Co., F., Independence, Wis. Medicines for diphtheria and croup .....	15,972	Oct. 30	45	464
Hostetter & Co., Pittsburg, Pa. Stomach-bitters .....	15,873	Sept. 18	44	1296
Hothersall & Co., J., Manchester, county of Lancaster, England. Ladies' towels .....	15,318	Mar. 27	42	1294
Hothersall & Co., J., Manchester, county of Lancaster, England. Imitation-leather cloth-dusters .....	15,319	Mar. 27	42	1294
Hough, Henry I., Providence, R. I. Malaria cure, cough and lung balsam, bitters, nerve and bone liniment, rose ointment, worm-medicine, and pills .....	15,973	Oct. 30	45	464
Housewife Publishing Co., Greenfield, Mass. Newspapers .....	15,165	Feb. 7	42	494
Howard & Son, Providence, R. I. Useful or ornamental articles made of solid silver .....	15,614	June 19	43	1352
Howe & Co., J. D., New York, N. Y. Liquid medicine for the ear .....	15,433	May 8	43	636
Hoyer, Frank B., Buffalo, N. Y. Cylinder-oil .....	16,104	Dec. 18	45	1324
Hubbell & Randall, New York, N. Y. Pocket and table cutlery, scissors, hunting and butcher knives, and razors .....	15,320	Mar. 27	42	1294
Hubbuck & Son, Thomas, London, England. Paints and pigments .....	15,694	July 17	44	236
Hughes, Walter J., Minneapolis, Minn. Liniment .....	15,434	May 8	43	636
Humason & Beckley Manufacturing Company, New Britain, Conn. Pocket cutlery .....	15,695	July 17	44	236
Hunnicut, Joseph M. (See Brown and Hunnicutt.) .....				
Hunt Kiddie Company, Gloucester, Mass., and New York, N. Y. Medicine for dyspepsia and pulmonary diseases .....	15,366	Apr. 17	43	254
Hutchison & Co., George F., Hamilton, Ohio. Medicinal preparation to be used either as a potion or a lotion .....	15,796	Aug. 21	44	826
Hyde & Burton, New York, N. Y. Silesia .....	15,917	Oct. 2	45	2
Hyde & Burton, New York, N. Y. Silesia .....	15,918	Oct. 2	45	2
Iler & Burgweger, Kansas City, Mo. Beer, ale, and porter .....	15,919	Oct. 2	45	2
Illingworth, Thomas, Bradford, county of York, England. Woolen and cotton fabrics for linings and outer clothing .....	15,594	May 29	43	988
Imperial Chemical Co., Philadelphia, Pa. Boiler-incrustation preventive and remover .....	15,385	Apr. 24	43	394
Improved Newburgher Pantaloon Manufacturers, Brooklyn, N. Y. Pantaloon .....	15,696	July 17	44	236
India Rubber Comb Company, College Point and New York, N. Y. Soft-rubber goods .....	15,166	Feb. 7	42	494
Ireson, Charles L., Boston, Mass. Self-adjusting leather link belting .....	15,279	Mar. 13	42	1066
Iroy, Ernest, Rheims, France. Champagne .....	15,535	May 29	43	988
Irwin & Co., Boston, Mass. Cigars, cigarettes, and smoking and chewing tobacco .....	15,536	May 29	43	988
Isaacs, Alexander W., Chicago, Ill. Wash for cleaning and polishing jewelry .....	15,167	Feb. 7	42	494
Isbell, James R., and H. P. Sauls, Lot, Ala. Proprietary medicines in the form of liquids, pills, and powders .....	15,138	Jan. 31	42	386
Jaffé & Darmstaedter, Benno, Charlottenburg, near Berlin, Prussia, Germany. Medical compounds for curing skin diseases .....	15,478	May 22	43	890
James, John D., Alma, Ark. Liniment .....	15,974	Oct. 30	45	464
Jaros Hygienic Underwear Company, Chicago, Ill. Underwear .....	16,060	Dec. 4	45	1072
Jellison, James M., Boston, Mass. Remedy for the cure of pulmonary diseases .....	16,003	Nov. 13	45	714
Jenkins Bros., New York, N. Y., and Boston, Mass. Valves and packing for valves, cocks, and similar devices .....	15,321	Mar. 27	42	1294
Jenkins, Thomas C., Pittsburg, Pa. Flour .....	16,062	Dec. 4	45	1072

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Jenks, Charles C. (See Foote and Jenks.)				
Johnson, Cowdin & Co., New York, N. Y. Ribbons	15,498	May 22	43	890
Johnson, Cowdin & Co., New York, N. Y. Ribbons	15,499	May 22	43	890
Johnson, Cowdin & Co., New York, N. Y. Ribbons	15,615	June 19	43	1352
Johnson, Cowdin & Co., New York, N. Y. Ribbons	15,435	May 8	43	636
Johnson & Jefferson, New Haven, Conn. Laundry-starch	15,932	Oct. 9	45	130
Jones Brothers, New York, N. Y. Tea and coffee in packages	16,061	Dec. 4	45	1072
Jones Brothers, New York, N. Y. Tea and coffee	15,930	Oct. 2	45	2
Jones, Louis B., New York, N. Y. Medicated troches	15,332	Mar. 27	42	1291
Jordan, Marsh & Co., Boston, Mass. Corset	15,641	June 26	43	1460
Jumbo Coal & Coke Co., Pittsburg, Pa. Coal and coke	16,044	Nov. 27	45	950
Jumeau, Emile, Paris, France. Dolls	16,073	Dec. 11	45	1196
Kane, Richard V., New York, N. Y. Ice-cream and water-ices	16,074	Dec. 11	45	1196
Kane, Richard V., New York, N. Y. Charlotte-russe	16,113	Dec. 25	45	1464
Kane & Son, Edward, Brooklyn, N. Y. Cordials	15,815	Aug. 28	44	948
Kaw Valley Cement Company, Kansas City, Mo. Mineral cement	15,465	May 15	43	760
Kelly & Co., Horace R., New York, N. Y. Cigars	15,323	Mar. 27	42	1294
Kennedy, David, Rondout, N. Y. Medicine	15,466	May 15	43	760
Kenney, C. T., J. Donovan, and W. K. Rodway, Griggsville, Ill. Boot and shoe blacking	15,892	Sept. 4	44	1072
Kentucky R. R. Tobacco Company, Covington, Ky. Smoking, chewing, or plug tobacco	15,833	Sept. 4	44	1072
Kerr, James, West New Brighton, N. Y. Medicines for the cure of malaria and liver troubles	15,537	May 29	43	988
Keyes, Minnie L., New York, N. Y. Cough medicine	15,672	July 10	44	112
Keystone Chemical Company, Philadelphia, Pa. Compounds for cleansing, washing, and scouring	16,122	Dec. 25	45	1464
Kiesel & Company, Fred. J., Ogden, Utah Ter. Whisky				
Kilgore & Wilson, Belfast, Mo. Extract of sarsaparilla compound, extract of Jamaica ginger, liver and kidney pills, and cough-syrup	15,588	June 12	43	1242
King & Co., Alex., New York, N. Y. Spool-cotton	15,076	Jan. 3	42	2
King & Co., Alex., New York, N. Y. Spool-cotton	15,077	Jan. 3	42	2
King & Co., Alex., New York, N. Y. Spool-cotton	15,090	Jan. 10	42	100
King & Co., Alex., New York, N. Y. Spool-cotton	15,108	Jan. 17	42	204
King & Co., Alex., New York, N. Y. Spool-cotton	15,109	Jan. 17	42	204
King Manufacturing Co., Bridgton, Me. Remedy for blood impurities	15,080	Jan. 3	42	2
Kingsford, Thomson, Oswego, N. Y. Starch for laundry and culinary purposes	15,078	Jan. 3	42	2
Kinney Tobacco Company, New York, N. Y. Cigarettes	15,336	Apr. 3	43	2
Kinney Tobacco Company, New York, N. Y. Cigarettes	15,337	Apr. 3	43	2
Kinney Tobacco Company, New York, N. Y. Cigarettes	15,338	Apr. 3	43	2
Kirk & Co., James S., Chicago, Ill. Laundry soap	15,257	Mar. 6	42	966
Kirk & Co., James S., Chicago, Ill. Laundry and toilet soap	15,709	July 24	44	346
Kirk & Co., James S., Chicago, Ill. Toilet and household soap	15,710	July 24	44	346
Kirkendall, Charles F., Pittsburg, Pa. Medicine for the cure of rheumatism and chronic blood diseases	15,589	June 12	43	1242
Kittredge, Charles F., Rockland, Me. Medical compound for the cure of certain named diseases	15,538	May 29	43	988
Kleinert, Isaac B., New York, N. Y. Dress-shields	15,366	Apr. 24	43	394
Kleinert, Isaac B., New York, N. Y. Dress-shields	15,387	Apr. 24	43	394
Kleinert, Isaac B., New York, N. Y. Dress-shields	15,388	Apr. 24	43	394
Kleinert, Isaac B., New York, N. Y. Dress-shields	15,436	May 8	43	636
Kleinert, Isaac B., New York, N. Y. Dress-shields	16,017	Nov. 20	45	838
Knenper, George, New York, N. Y. Medicine for the cure of coughs and colds	15,125	Jan. 24	42	300
Knorr, John A., New York, N. Y. Albumen paper for photographic purposes	15,437	May 8	43	636
Kochs, Theodore A., Chicago, Ill. Barbers' shaving-soap	15,749	Aug. 7	44	572
Koenig Wilhelm's-Elsenquellen, Ems, Germany. Mineral water and mineral salts and pastils and troches made from the salts	15,590	June 12	43	1242
Kosmic Oil Co., New York, N. Y. Illuminating and lubricating oils	15,500	May 12	43	890
Krause & Son, William, Philadelphia, Pa. Artificial stone and cement and concrete pavements	15,539	May 29	43	988
Kreiser, August, New York, N. Y. Wines	15,352	Apr. 10	43	120
La Compagnie des Cristalleries de Baccarat, Baccarat, Meurthe, France. Hollow glassware	15,293	Mar. 20	42	1172
La Société de la Vieille Montagne, Chénée, Belgium. Oxide of zinc, dry and in oil, spelter, and sheet-zinc	15,275	Mar. 6	42	966
Lackawanna Mills, Scranton, Pa. Knit wearing-apparel	15,501	May 22	43	890
Ladd & Collin, New York, N. Y. Perfumery	15,205	Feb. 21	42	728
Lagmann, Antoine, New Orleans, La. Remedy for diphtheria	15,540	May 29	43	988
Lancaster Mills, Clinton and Boston, Mass. Cotton fabrics of all kinds	15,505	May 22	43	890
Langdon, Arthur F., Hartford, Conn. Protector to prevent soiling the collar, necktie, and upper part of the coat	15,769	Aug. 14	44	702
Lascelles & Co., A. S., New York, N. Y. Annatto-seed	15,711	July 24	44	346
Lathrop & Co., C. D., Chicago, Ill. Tea	15,179	Feb. 14	42	618
Lathrop & Co., C. D., Chicago, Ill. Teas from China	15,324	Mar. 27	42	1294
Lazell, Dalley & Co., New York, N. Y. Perfumery, sachet-powder, and other toilet preparations	15,300	Mar. 20	42	1172
Lazell, Dalley & Co., New York, N. Y. Perfumery	15,301	Mar. 20	42	1172
Leach, Henry B., Boston, Mass. Safety-razors	15,591	June 12	43	1242
Leavitt, Flora H. (See Fisk and Leavitt.)				
Leimer, Fr. J., Chicago, Ill. Medicine for horses and cattle	15,592	June 12	43	1242
Leonard, James H., Kansas City, Mo. Coal	16,075	Dec. 11	45	1196
Leonard & Co., D., Birmingham, county of Warwick, England. Metallic pens, except those made of precious metals or in imitation of the same	15,389	Apr. 24	43	394
Leschen & Sons Rope Company, A., St. Louis, Mo. Wire rope	15,899	Sept. 25	44	1404
Lévy & Bros., Léon, New York, N. Y. Hamburg embroideries	15,206	Feb. 21	42	728
Lewis, George F., Chicago, Ill. Certain named toilet preparations and articles	15,712	July 24	44	346
Lewis Manufacturing Company, Sioux City, Iowa. Compound for preventing incrustation and for removing scale in boilers	15,406	May 1	43	514
Liebig Extract of Beef Company, Chicago, Ill. Extract of beef	15,770	Aug. 14	44	702
Lighthill, August P., Boston, Mass. Atomizers	15,232	Feb. 28	42	832
Lilly & Company, Eli, Indianapolis, Ind., and Kansas City, Mo. Medicinal preparation for the cure of diseases of the blood and skin	15,593	June 12	43	1242
Lindley, William T., Chicago, Ill. Remedy for diseases of the urinary system	15,467	May 15	43	760
Litchfield, Percy, Wandsworth Common, county of Surrey, England. Remedy for gout and rheumatism	15,713	July 24	44	346
Little & Co., John H., New York, N. Y. Folding beds	16,087	Dec. 11	45	1196
Livingston Nail Co., New York, N. Y. Hose-nails	15,502	May 22	43	890
Lloyd, C. G. (See Lloyd, N. A. and C. G.)				
Lloyd, N. A. and C. G., Cincinnati, Ohio. Preparation used as an emmenagogue	15,714	July 24	44	346
Lloyd & Supplee Hardware Co., Philadelphia, Pa. Lawn-mowers	15,852	Sept. 11	44	1190
Lloyd & Supplee Hardware Co., Philadelphia, Pa. Lawn-mowers	15,853	Sept. 11	44	1190
Loopuyt & Co., P., Scheidam, Holland. Gin	15,697	July 17	44	236
Loopuyt & Co., P., Scheidam, Holland. Gin	15,698	July 17	44	236



*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page
Lorenz, George, Toledo, Ohio. Toilet powder.....	15,797	Aug. 21	44	896
Lorenz, Phillip M., Toledo, Ohio. Toilet perfume.....	15,302	Mar. 20	42	1172
Los Angeles Cold Storage Company, (limited,) Carbondale, Pa., and Los Angeles, Cal. Hams, shoulders, and bacon.....	16,076	Dec. 11	45	1196
Love, Joseph G., Hanover, Ill. Horse and cattle liniment.....	15,325	Mar. 27	42	1294
Lovett Company, J. T., Little Silver, N. J. Cornmeal.....	15,771	Aug. 14	44	702
Lovett Company, J. T., Little Silver, N. J. Peach-trees.....	16,045	Nov. 27	45	950
Ludin, Susan A., New York, N. Y. Carbonated beverages.....	15,280	Mar. 13	42	1066
Ludington & Co., J., Baltimore, Md. Shucked raw and hermetically-sealed oysters.....	15,798	Aug. 21	44	826
Ludlow & Co., Charles, Springfield, Ohio. Liquid medicine to aid digestion.....	15,750	Aug. 7	44	572
Ludorff & Naeke, New York, N. Y. Lager-beer, soda, and mineral waters.....	15,594	June 12	43	1242
Luther, Henry E., Providence, R. I. Certain ornamental jewelry.....	15,834	Sept. 4	44	1072
Lyall, James, New York, N. Y. Twine for binding sheaves of grain, usually known as binder-twine.....	15,933	Oct. 9	45	130
Lyon & Healy, Chicago, Ill. Stringed musical instruments.....	15,180	Feb. 14	42	618
MacLea & Co., R. B., New York, N. Y. Dress goods.....	15,655	July 3	44	2
MacLea & Co., R. B., New York, N. Y. Silk fabrics.....	16,028	Dec. 11	45	1196
Macbeth, James, New York, N. Y. Magneto blasting-machines, electric batteries, fuses, blasting caps and wires.....	15,281	Mar. 13	42	1066
Maegerlein, William. (See Bani, Maegerlein, and Bruce.).....				
Magge, Gustave H., New Orleans, La. Compound for soft soap.....	15,866	Sept. 11	44	1190
Maggi & Co., Julius, Kempthal, Switzerland. Extracts of meats.....	15,772	Aug. 14	44	702
Maggi & Co., Julius, Kempthal, Switzerland. Extracts of meats.....	15,799	Aug. 21	44	826
Maggioni, Francesco, Milan, Italy. Gloves.....	15,958	Oct. 23	45	350
Maggioni, Francesco, Milan, Italy. Gloves.....	15,987	Nov. 6	45	594
Maggioni, Francesco, Milan, Italy. Gloves.....	16,004	Nov. 13	45	714
Magruder, John H., Washington, D. C. Whisky.....	15,751	Aug. 7	44	572
Maine Balsam Fir Co., Boston, Mass. Toilet-soap.....	15,503	May 22	43	890
Manz Brewing Company, G., Philadelphia, Pa. Lager-beer, fluid malt, extract of malt, and a malt preparation.....	15,816	Aug. 28	44	948
Marburg Brothers, Baltimore, Md. Smoking-tobacco.....	15,084	Jan. 10	42	100
Marks, Caroline, San Francisco, Cal. Preparation of herbs used as a remedy for diseases of the blood and liver, and for rheumatism.....	15,339	Apr. 3	43	2
Marks, Daniel, Philadelphia, Pa. Pantaloon.....	15,921	Oct. 2	45	2
Marsh, Arthur, Lynn, Mass. Soap.....	16,105	Dec. 18	45	1324
Marshall, Kennedy & Co., (limited,) Pittsburg, Pa. Flour.....	15,258	Mar. 6	42	966
Marshall, Kennedy & Co., (limited,) Pittsburg, Pa. Flour.....	15,390	Apr. 24	43	394
Marshall, Kennedy & Co., (limited,) Pittsburg, Pa. Flour.....	15,407	May 1	43	514
Marshall, Kennedy & Co., (limited,) Pittsburg, Pa. Flour.....	15,468	May 15	43	760
Marshall, Kennedy & Co., (limited,) Pittsburg, Pa. Wheaten flour.....	16,046	Nov. 27	45	950
Martin & McAndrews, Baltimore, Md. Rye whisky.....	15,773	Aug. 14	44	702
Marvelous Cough Syrup Company, Havre de Grace, Md. Sirups for coughs and colds.....	15,595	June 12	43	1242
Marx & Haas, St. Louis, Mo. Pantaloon, coats, and vests.....	15,233	Feb. 28	42	832
Matchless Metal Polish Company, Chicago, Ill. Compounds for cleaning and polishing metals.....	15,988	Nov. 6	45	594
Matthews, Elias E., Indianapolis, Ind. Tonic medicine for the brain, nerves, and muscles.....	15,752	Aug. 7	44	572
Matthews, Henry, Walden, N. Y. Cure for erysipelas.....	15,753	Aug. 7	44	572
Mayer Bros. & Co., Cincinnati, Ohio. Bitters or tonic.....	15,730	July 31	44	452
Mayo, Uriel K., Boston, Mass. Certain anæsthetic compound.....	15,438	May 8	43	636
McClain, Edward L., Greenfield, Ohio. Sweat-pad for horse-collars.....	15,900	Sept. 25	44	1404
McClung & Co., Calvin M., Knoxville, Tenn. Horse-nails.....	15,542	May 29	43	988
McCollin & Co., Thomas H., Philadelphia, Pa. Photographic flash-light material.....	15,699	July 17	44	236
McCoy & Sanders, New York, N. Y. Hair clippers or cutters.....	15,303	Mar. 20	42	1172
McDonald Drug Company, R. H., New York, N. Y. Toilet-water sachet-powder.....	15,469	May 15	43	760
McDonald Drug Company, R. H., New York, N. Y. Toilet, medicated, and commercial soap.....	15,543	May 29	43	988
McKirkick, David F., Marysville, Ohio. Remedy for chicken-cholera.....	15,470	May 15	43	760
McLaughlin, William F., Chicago, Ill. Baking-powder.....	15,991	Nov. 6	45	594
McLeish, John, Cincinnati, Ohio. Cough medicine.....	15,541	May 29	43	968
McMahon, Patrick H., Burlington, Vt. Hair dressings or tonics.....	15,774	Aug. 14	44	702
McPike, William C., and J. C. Fox, Atchison, Kans. Tonic proprietary medicine.....	15,934	Oct. 9	45	130
Meade-Van Bokkelen Company, Chicago, Ill. Wines, whiskies, brandies, and bitters.....	15,975	Oct. 30	45	464
Meade-Van Bokkelen Company, Chicago, Ill. Bitters.....	16,077	Dec. 11	45	1196
Megill, Edward L., New York, N. Y. Gage-pins, feed-guides, and other registering apparatus, tools, and machinery used in printing.....	15,234	Feb. 28	42	832
Mendenhall, Charles, Wapakoneta, Ohio. Vegetable medical compounds.....	15,754	Aug. 7	44	572
Merchant & Co., Philadelphia, Pa. Tin andterne plates.....	15,207	Feb. 21	42	728
Merchant & Co., Philadelphia, Pa. Tin plates.....	15,208	Feb. 21	42	728
Merchant & Co., Philadelphia, Pa. Tin plates andterne plates.....	15,504	May 22	43	890
Merck, E., Darmstadt, Germany. Preparation of hyoscyamin known as duboisin.....	15,989	Nov. 6	45	594
Merck, E., Darmstadt, Germany. Alkaloid—to wit, oxytolnyltropine.....	15,990	Nov. 6	45	594
Merrill & Soule, Syracuse, N. Y. Canned corn, beans, succotash, pumpkins, tomatoes, and green peas.....	15,949	Oct. 16	45	238
Merrill & Soule, Syracuse, N. Y. Canned vegetables.....	15,992	Nov. 6	45	594
Merriman Manufacturing Company, Oakland, Cal. California olive-oil.....	15,439	May 8	43	636
Merritt & Ronaldson, New York, N. Y. Teas.....	15,835	Sept. 4	44	1072
Mexican Amollia Soap Company, Peoria, Ill. Soap.....	15,616	June 19	43	1352
Mexican Amole Soap Company, Peoria, Ill. Soap.....	15,775	Aug. 14	44	702
Mexican Amole Soap Company, Peoria, Ill. Soaps.....	15,776	Aug. 14	44	702
Meyer & Co., J., New York, N. Y. Dress goods.....	15,874	Sept. 18	44	1296
Miles' Sons, T., Philadelphia, Pa. Boots and shoes.....	15,210	Feb. 21	42	728
Miller & Bingham, Troy, N. Y. Collars and cuffs.....	15,282	Mar. 13	42	1066
Miller & Co., H. S., Newark, N. J. Phosphates for fertilizers.....	15,181	Feb. 14	42	618
Miller & Co., H. S., Newark, N. J. Ammoniated dissolved-bone phosphate.....	15,182	Feb. 14	42	618
Miller & Co., H. S., Newark, N. J. Phosphates for fertilizers.....	15,183	Feb. 14	42	618
Miller & Co., H. S., Newark, N. J. Ground-bone fertilizers.....	15,209	Feb. 21	42	728
Miller, John R., Peterborough, N. H. Tonic and expectorant remedies.....	15,935	Oct. 9	45	130
Miller & King, Pittsfield, Mass. Laundry starch.....	16,123	Dec. 25	45	1464
Miller, Watson J., and H. Berry, Shelton, Conn. Metal articles for decoration and for toilet and table use.....	15,642	June 26	43	1460
Miller, William D. W., New York, N. Y. Wood-incased cans and glass vessels.....	15,576	June 5	43	1120
Milward & Sons, Henry, Redditch, England. Needles.....	15,656	July 3	44	2
Milward & Sons, Henry, Redditch, England. Needles.....	15,731	July 31	44	452
Minneapolis Glass Company, Minneapolis, Minn. Lamp-chimneys.....	15,391	Apr. 24	43	394
Missisquoi Mineral Springs Company, New York, N. Y. Medicinal spring-water.....	15,901	Sept. 25	44	1404
Mix & Co., G. L., Yalesville, Conn. Table-ware constructed of silver or of other metals and then plated or tiuned.....	15,211	Feb. 21	42	728

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Mix & Co., G. I., Yalesville, Conn. Spoons, forks, ladles, &c.	15,440	May. 8	43	636
Montague & Co., F. T., Crawfordsville and Indianapolis, Ind., and Chicago, Ill. Remedy for catarrh and kindred diseases	15,168	Feb. 7	42	494
Montgomery, Alexander, Boston, Mass. Packings for machinery	15,169	Feb. 7	42	494
Moore, John T., Bellows Falls, Vt. Toilet-paper	15,577	June 5	43	1120
Moore, Joseph C., Montreal, Quebec, Canada. Dentifrices	15,506	May 22	43	890
Moore Manufacturing Company, Seattle, Wash. Ter. Blood-purifying medicine	15,212	Feb. 21	42	728
Morgan, James, Milwaukee, Wis. Silks, velvets, plushes, and other fabrics	16,063	Dec. 4	45	1072
Morley, I. & R., London, England, and New York, N. Y. Underwear and hosiery for both sexes and for children	15,875	Sept. 18	44	1296
Morley, I. & R., London, England, and New York, N. Y. Underwear and hosiery	15,922	Oct. 2	45	2
Morley, I. & R., London, England, and New York, N. Y. Underwear and hosiery for both sexes and for children	16,005	Nov. 13	45	714
Morrison & Deprez, Shelbyville, Ind. Certain preparations for use in throat and lung diseases	15,950	Oct. 16	45	238
Morton's Sons, James, Kansas City, Mo. Caudies, cake, and pastry	16,078	Dec. 11	45	1196
Mott, Harry W., Chicago, Ill. Baking-powder	15,657	July 3	44	2
Mottet & Cie., P. Grasse, Alpes Maritimes, France. Olive-oil	15,126	Jan. 24	42	300
Mudge, George M. B., New York, N. Y. Bolted worsted and mixed worsted goods	16,047	Nov. 27	45	950
Muhr, Joseph, Philadelphia, Pa. Alloy for jewelry	15,658	July 3	44	2
Muilberger, Paul J., Springfield, Mo. Cure for certain named diseases	15,817	Aug. 28	44	948
Mumm & Co., George H., Rheims, France. Champagne-wine	15,596	June 12	43	1242
Murphy, Grant & Co., San Francisco, Cal., and New York, N. Y. Ribbons and piece silks	15,170	Feb. 7	42	494
Murphy, Grant & Co., San Francisco, Cal., and New York, N. Y. Ribbons and piece silks	15,408	May 1	43	514
Murphy, Owen J., Baltimore, Md. Hoof-stimulant	15,139	Jan. 31	42	386
Murphy, William J. (See Sharrer and Murphy.)				
Murray, Samuel B., San Francisco, Cal. Proprietary invigorant medicine	15,259	Mar. 6	42	966
Mutual Benefit Tea Company, New York, N. Y. Tea	15,908	Sept. 25	44	1404
Myers & Co., S. F., New York, N. Y. Watches, clocks, jewelry, and silverware	15,304	Mar. 20	42	1172
Neal, John F., Lampasas, Tex. Hepatic compound	15,597	June 12	43	1242
Neal, William W., and H. W. Todd, Akron, Ohio. Medicine for the cure of certain named diseases	15,092	Jan. 10	42	100
Neel, William D., Chicago, Ill. Medicine for the cure of throat diseases	16,048	Nov. 27	45	950
Neumann, Morris D., Chicago, Ill. Cigars, cigarettes, smoking and chewing tobacco, and snuff	15,578	June 5	43	1120
New Jersey Wire Cloth Company, Trenton, N. J. Galvanized wire netting and fencing, wire-cloth, and wire lathing	16,049	Nov. 27	45	950
New York Belting and Packing Company, New York, N. Y. Rubber mats	15,353	Apr. 10	43	120
New York Belting and Packing Company, New York, N. Y. Second-grade rubber belting and hose	16,064	Dec. 4	45	1072
New York Belting and Packing Company, New York, N. Y. Third-grade rubber belting and hose	16,065	Dec. 4	45	1072
New York Condensed Milk Company, New York, N. Y. Condensed milk	15,801	Aug. 21	44	826
New York Pharmaceutical Association, Yonkers, N. Y. Medical compound for aiding digestion and curing dyspepsia	15,368	Apr. 17	43	254
Newbery & Sons, F., London, England. Medicine for the cure of headache, sea-sickness, epilepsy, and nervous debility	15,246	Feb. 28	42	832
Newcomb, Albert S., New York, N. Y. Drugs capable of trituration and of being formed into pills or pellets	15,110	Jan. 17	42	204
Newell Bros., Cleveland, Ohio. Flour, oatmeal, cornmeal, hominy, and grits	15,184	Feb. 14	42	618
Nicholson, William C., administrator. (See Halford, William, deceased.)				
Nightingale, Joseph, Paterson, N. J. Ribbons and broad silks	16,050	Nov. 27	45	950
Nonantum Worsted Company, Newton and Boston, Mass. Worsted and woolen yarns	15,340	Apr. 3	43	2
Nonantum Worsted Company, Newton and Boston, Mass. Worsted, woolen, silk, and cotton yarns	15,507	May 22	43	890
Nonantum Worsted Company, Newton and Boston, Mass. Worsted, woolen, and silk yarns	15,508	May 22	43	890
Nonantum Worsted Company, Newton and Boston, Mass. Perfumes and odoriferous and flavoring extracts	15,802	Aug. 21	44	826
Nonantum Worsted Company, Newton and Boston, Mass. Perfumes and odoriferous and flavoring extracts	15,803	Aug. 21	44	826
Non-Magnetic Watch Company of America, New York, N. Y. Watches	15,923	Oct. 2	45	2
Norddeutsche Kartoffelmehl Fabrik, Küstrin, Germany. Potato-flour and potato-starch and all potato-starch products, including dextrine	15,260	Mar. 6	42	966
Norddeutsche Kartoffelmehl Fabrik, Küstrin, Germany. Potato-flour and potato-starch and all potato-starch products, including dextrine	15,509	May 22	43	890
North River Coal and Wharf Company, Jersey City, N. J. Anthracite and bituminous coal	15,469	May 1	43	514
Norwood & Co., Seth, Beverly, Mass. Boots and shoes	15,836	Sept. 4	44	1072
Not Company, W. S., Minneapolis, Minn. Leather belting	15,510	May 22	43	890
Not Company, W. S., Minneapolis, Minn. Rubber shoes	15,854	Sept. 11	44	1190
O'Neil, Henry M., New York, N. Y. Medicinal preparations generally	15,369	Apr. 17	43	254
Oakley, L. & J., Newburg, N. Y. Soap for laundry and toilet purposes	15,140	Jan. 31	42	386
Ogden, Charles E., London, England. Writing and copying fluids and inks	15,283	Mar. 13	42	1066
Ohio and Western Coal and Iron Company, Boston, Mass., and Columbus, Ohio. Pig-iron and bituminous coal	15,284	Mar. 13	42	1066
Olcovich, Joseph, San Francisco, Cal. Emollient compound	15,471	May 15	43	760
Old Kentucky Woolen Mills Company, Louisville, Ky. Woollens, jeans, and like goods	15,804	Aug. 21	44	826
Oppenheimer, & Co., Henry E., New York, N. Y. Genuine or imitation diamonds	15,715	July 24	44	346
Orford Copper Company, New York, N. Y. Refined copper	15,511	May 22	43	890
Orford Copper Company, New York, N. Y. Refined copper	15,617	June 19	43	1352
Orford Copper Company, New York, N. Y. Refined copper	15,618	June 19	43	1352
Ormiston & Glass, Edinburgh, Scotland. Steel pens	15,805	Aug. 21	44	826
Ostheimer Brothers, Philadelphia, Pa. Pearl buttons	15,806	Aug. 21	44	826
Ottumwa Optical Co., Ottumwa, Iowa. Spectacles or eyeglasses	15,936	Oct. 9	45	130
Packard & Grover, Brockton, Mass. Heavy shoes for men	15,818	Aug. 28	44	948
Pailard & Co., M. J., New York, N. Y. Music-boxes	16,089	Dec. 11	45	1196
Palmer, Ambrose S., Elkhart, Ind. Herb compound for certain diseases, a liniment, and a worm medicine	15,247	Feb. 28	42	832
Palmer, Charles W., New Haven, Conn. Pills	15,235	Feb. 28	42	832
Palmer, Thomas J., Queen's Mill, county of Lancaster, England. Embossed or stamped material for covering walls, ceilings, &c.	16,114	Dec. 25	45	1464
Paradis, Adrian, Brooklyn, N. Y. Pharmaceutical preparations	15,370	Apr. 17	43	254
Parker, Holmes & Co., Boston, Mass. Boots and shoes	15,285	Mar. 13	42	1066
Parker & Son, Joseph, New Haven, Conn. Blotting, matrix, book, and colored cover paper and paper-fiber lint	15,996	Nov. 13	45	714
Parker & Son, Joseph, New Haven, Conn. Blotting-paper	15,997	Nov. 13	45	714
Parker & Son, Joseph, New Haven, Conn. Blotting-paper	15,998	Nov. 13	45	714
Parks, John H., Plymouth, Mass. Carpet tacks	16,090	Dec. 11	45	1196
Patterson, James A., Birmingham, Ala. Manufactured tobacco, cigars, and cigarettes	15,472	May 15	43	760
Patton Bros., Catlettsburg, Ky. Medical compound for external and internal use	15,876	Sept. 18	44	1296

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Patton Bros., Catlettsburg, Ky. Kidney-cordial	15,902	Sept. 25	44	1404
Payne, Samuel R., Athens, Pa. Ointment or salve	15,819	Aug. 28	44	948
Peabody & Co., Henry W., Boston, Mass. Kerosene-oil	16,126	Dec. 25	45	1464
Pearson & Co., C. H., Baltimore, Md. Fresh oysters, fruits, and vegetables in contradistinction to canned or preserved goods	15,512	May 22	43	890
Pearson & Co., William, Hamburg, Germany. Liquid and powder disinfectants	15,598	June 12	43	1242
Pechin, William J., Philadelphia, Pa. Preparation for chapped hands and lips	15,305	Mar. 20	42	1172
Peckham, Henry C., Freeport, Mich. Group remedy	15,599	June 12	43	1242
Peirce, Charles L., Milwaukee, Wis. Skates	15,659	July 3	44	2
Pemberton & Hill Tobacco Manufacturing Company, Richmond, Va. Cigars, cigarettes, and chewing and smoking tobacco	15,111	Jan. 17	42	204
Pemberton & Hill Tobacco Manufacturing Company, Richmond, Va. Cigars, cigarettes, chewing and smoking tobacco, and snuff	15,837	Sept. 4	44	1072
Peninsular Novelty Company, Boston, Mass. Two-pronged button-fasteners	15,838	Sept. 4	44	1072
Pepper, George W., Peabody, Mass. Cough-drops	15,371	Apr. 17	43	254
Perdomo, Felipe B., Havana, Cuba. Cure for seasickness	15,909	Sept. 25	44	1404
Pfister & McKey, New Orleans, La. Butter	15,600	June 12	43	1242
Phelps, Charles S., Gowanda, N. Y. Salve	15,544	May 29	43	988
Phénique Chemical Company, St. Louis, Mo. Antiseptic chemical compound	15,545	May 29	43	988
Phillip Best Brewing Company, Milwaukee, Wis. Nutrient beverages	15,777	Aug. 14	44	702
Phillip Best Brewing Company, Milwaukee, Wis. Nutrient beverages	15,778	Aug. 14	44	702
Phosphor Bronze Smelting Company, (limited,) Philadelphia, Pa. Metallic alloys and articles made therefrom	15,225	Feb. 21	42	728
Phosphor Bronze Smelting Company, (limited,) Philadelphia, Pa. Alloys and articles made therefrom	15,226	Feb. 21	42	728
Pierce, Butler & Pierce Manufacturing Company, Syracuse, N. Y. Steam and hot-water boilers	15,410	May 1	43	514
Pierce, Henry L., Boston and Milton, Mass. Webb's cocoa shells	15,261	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Webb's double vanilla chocolate	15,262	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Cracked cocoa	15,263	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Cracked cocoa	15,264	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Broma	15,265	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Manufactured chocolate	15,266	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. French sweet chocolate	15,267	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Webb's pure cocoa	15,268	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Sweet chocolate	15,269	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Chocolate	15,270	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Josiah Webb & Co.'s premium chocolate	15,271	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. French sweet chocolate	15,272	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Sweet vanilla chocolate	15,273	Mar. 6	42	966
Pierce, Henry L., Boston and Milton, Mass. Cocoa paste	15,286	Mar. 13	42	1066
Pierce, Henry L., Boston and Milton, Mass. C. Alden's Chocolate	15,660	July 3	44	2
Pierce Steam Heating Co., Buffalo, N. Y. Steam or hot water radiators	15,441	May 8	43	636
Pike Manufacturing Company, A. F., Pike Station, N. H. Whetstones	15,127	Jan. 24	42	300
Pittsburg Wire Nail Company, Pittsburg, Pa. Wire nails	15,372	Apr. 17	43	254
Pohl, Emile, Baltimore, M. D. Corsets	15,976	Oct. 30	45	464
Pollard, James H., Springfield, Ill. Concentrated stock-food	15,741	Jan. 31	42	386
Pommery Fils & Co., Veuve, Rheims, France. Champagne-wine	15,581	June 5	43	1120
Pommery Fils & Co., Veuve, Rheims, France. Champagne-wine	15,582	June 5	43	1120
Pommery Fils & Co., Veuve, Rheims, France. Champagne-wine	15,605	June 12	43	1242
Pommery Fils & Co., Veuve, Rheims, France. Champagne-wine	15,606	June 12	43	1242
Pommery Fils & Co., Veuve, Rheims, France. Champagne-wine	15,607	June 12	43	1242
Popham & Co., James W., Elizabethtown, Ky. Laundry and toilet soap	15,903	Sept. 25	44	1404
Popham & Co., James W., Elizabethtown, Ky. Writing-inks	15,937	Oct. 9	45	130
Popplein, G. & N., Jr., Baltimore, Md. Therapeutic preparation for outward application	16,006	Nov. 13	45	714
Powell, D. Frank, La Crosse, Wis. Pulmonary medicine and lung-healer	15,355	Apr. 10	43	120
Pozzoni Medicated Complexion Powder Company, J. A., St. Louis, Mo. Medicated face-powder, hair-dye, and cologne	15,855	Sept. 11	44	1190
Pozzoni Medicated Complexion Powder Company, J. A., St. Louis, Mo. Complexion or face powder other than medicated	15,856	Sept. 11	44	1190
Preservaline Manufacturing Company, New York, N. Y. Saltpeter	15,185	Feb. 14	42	618
Proston & Sons, J. H., Webster, Md. Canned vegetables, corn, tomatoes, and fruits	15,392	Apr. 24	43	394
Price Baking Powder Company, Chicago, Ill. Baking-powder	15,951	Oct. 16	45	238
Prince's Metallic Paint Company, Philadelphia, Pa., and New York, N. Y. Metallic paint	15,546	May 29	43	988
Procter & Gamble, Cincinnati, Ohio. Soap	15,755	Aug. 7	44	572
Procter & Gamble, Cincinnati, Ohio. Soap	15,857	Sept. 11	44	1190
Procter & Gamble, Cincinnati, Ohio. Soap for laundry and general purposes	15,924	Oct. 2	45	2
Procter & Gamble, Hamilton County, Ohio. Brown soap in bars	15,779	Aug. 14	44	702
Quaker Remedies Co., Philadelphia, Pa. Composition of herbs to be used as a tea	15,373	Apr. 17	43	254
Reardon & Sons, John, Boston, Mass. Hard soap	16,091	Dec. 11	45	1196
Recknagel & Co., New York, N. Y. Washing-machines	15,643	June 26	43	1460
Reddie, Isaac H., Boston, Mass. Liquid polish for stoves	15,644	June 26	43	1460
Redmond Brothers, Dublin, Ireland. Whisky	16,115	Dec. 25	45	1464
Redmond, Laurence, Dublin, Ireland. Medicinal powder	16,127	Dec. 25	45	1464
Reed & Carrick, New York, N. Y. Remedy for phthisis, neurasthenia, constipation, and intestinal indigestion	15,601	June 12	43	1242
Reed & Carrick, New York, N. Y. Medical compound of a granular effervescent nature, being a brain and nerve food and a sedative	15,732	July 31	44	452
Reed, Francis H., Southborough, Mass. Liniments	15,442	May 8	43	616
Reginaris Company, (Limited,) London, England. Mineral waters	15,999	Nov. 13	45	714
Reid, Murdoch & Fischer, Chicago, Ill. Cigars	15,547	May 29	43	988
Reid, Murdoch & Fischer, Chicago, Ill. Cigars	15,548	May 29	43	988
Reid, Murdoch & Fischer, Chicago, Ill. Cigars	15,549	May 29	43	988
Reid Tobacco Company, Sam., St. Joseph, Mo. Plug-tobacco	15,142	Jan. 31	42	386
Reiff, Benjamin, Philadelphia, Pa. Canned green corn	15,393	Apr. 24	43	394
Reiset, Frederic, New York, N. Y. Sardines	16,106	Dec. 18	45	1324
Revere Rubber Company, Boston, Mass. Rubber valves	15,214	Feb. 21	42	728
Revere Rubber Company, Boston, Mass. Rubber helting and hose	16,066	Dec. 4	45	1072
Reversible Collar Company, Boston and Cambridge, Mass. Collars and cuffs	15,700	July 17	44	236
Reynolds, John H., Troy, N. Y. Ventilators	15,411	May 1	43	514
Reynolds Manufacturing Company, Cincinnati, Ohio. Remedies for promoting the growth of the teeth and bones	15,602	June 12	43	1242
Rice & Co., Thomas, Shrewsbury and Boston, Mass. Leather boots and shoes	15,550	May 29	43	988
Richmond Nerve Company, S. A., St. Joseph, Mo. Medicine for relieving epileptic fits and other nervous diseases	15,274	Mar. 6	42	966

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Richter, Friedrich A., Nuremberg and Rudolstadt, Germany; Vienna, Austria-Hungary; Rotterdam, Holland; Olten, Switzerland; London, England, and New York, N. Y. Certain named medical remedies.	15,143	Jan. 31	42	386
Ricketson Mineral Paint Works, Milwaukee, Wis. Mortar colors of all shades and tints.	15,513	May 22	43	890
Ridgway & Co., London, England. Black teas.	15,716	July 24	44	346
Riessner & Company, C., New York, N. Y. Oil-stoves.	15,128	Jan. 24	42	300
Rigaud & Chapoteant, Paris, France. Cod-liver-oil pills.	15,306	Mar. 20	42	1172
Riker & Son, William B., New York, N. Y. Certain named medical compounds.	15,661	July 3	44	2
Riker, William H., New York, N. Y. Extracts and other perfumes.	15,307	Mar. 20	42	1172
Riker, William H., New York, N. Y. Expecto-rant medicine.	15,514	May 22	43	890
Riverside Soap Company, Paterson, N. J. Granulated washing-powder.	15,394	Apr. 24	43	394
Rivoire, C., and T. Carret, Lyons, France. Macaroni.	15,144	Jan. 31	42	386
Robinson & Co., Joseph, Kuothill, near Carlisle, county of Cumberland, England. Hydraulic cement.	15,807	Aug. 21	44	826
Robinson & Co., Wm. H., Providence, R. I. Filled gold chains.	15,579	June 5	43	1120
Rocher Frères, La Côte St. André, Isère, France. Liqueurs or cordials.	15,673	July 10	44	112
Rocke, Tompsitt & Co., London, England, and Melbourne, Australia. Articles of pharmacy, soap, dentifrice, and toilet vinegar which contain a certain odoriferous extract.	15,079	Jan. 3	42	2
Rodway, Will. K. (See Kenney, Donovan, and Rodway.)				
Rogers, C. H., New York, N. Y. Certain remedy for external and internal use and for certain diseases.	15,780	Aug. 14	44	702
Rogers, John R., Cleveland, Ohio. Stereotype-making machines.	15,959	Oct. 23	45	350
Rogers Manufacturing Company, Wm., Hartford, Conn. Gold, silver, and plated wares for household use.	16,128	Dec. 25	45	1464
Rogers, William H., Hartford, Conn. Silver or silver-plated table-ware.	16,007	Nov. 13	45	714
Rohe & Brother, New York, N. Y. Lard.	15,341	Apr. 3	43	2
Rohe & Brother, New York, N. Y. Lard.	15,645	June 26	43	1460
Rosenthal, Fleischer & Co., Güssingen, Germany. Corsets and other white underwear.	15,515	May 22	43	890
Ross, Charles E., Lincoln, Ill. Washing-machine.	15,236	Feb. 28	42	832
Rothschild Bros. & Co., New York, N. Y. Medicine for diseases of the blood, nerves, and digestive organs.	15,904	Sept. 25	44	1404
Rothschild & Co., V. Henry, New York, N. Y. Shirts.	15,516	May 22	43	890
Rowland & Sons, A., London, England. Preparation for the human hair.	15,093	Jan. 10	42	100
Rowland & Sons, A., London, England. Dentifrices.	15,094	Jan. 10	42	100
Rowland & Sons, A., London, England. Preparation for the skin.	15,095	Jan. 10	42	100
Roy Drug Co., Boston, Mass. Injection of milkweed.	15,248	Feb. 28	42	832
Ruth & Co., B. F., Reading, Pa. Powder to be mixed with linseed-oil, &c., for coating walls.	15,006	Jan. 10	42	100
Rutherford & Barnes, Brooklyn, N. Y. Soap in bars.	15,756	Aug. 7	44	572
Rutherford & Barnes, Brooklyn, N. Y. Soap in bars.	15,757	Aug. 7	44	572
Sackett & Neat, New Albany, Ind. Cure for and preventive of venereal diseases.	15,249	Feb. 28	42	832
Sagar, Charles H., Anburn, N. Y. Non-alcoholic beverage.	15,215	Feb. 21	42	728
Sagar, Charles H., Anburn, N. Y. Non-alcoholic beverage containing fruit properties.	15,820	Aug. 28	44	948
Sage, Oliver F., Boston, Mass. Trunks, bags, and valises.	16,092	Dec. 11	45	1196
Saginaw Manufacturing Company, Saginaw, Mich. Spring shade-rollers.	16,093	Dec. 11	45	1196
Salter, William T., New York, N. Y. Folding beds.	15,580	June 5	43	1120
Sam & Co., Mayer, New York, N. Y. Boots and shoes.	15,367	Apr. 17	43	254
Sanborn, F. E., Omaha, Nebr. Medicated food for animals.	15,639	June 26	43	1460
Sauls, Henry P. (See Isbell and Sauls.)				
Savage Bros., Washington, D. C. Metal-polishing preparation.	15,725	July 24	44	346
Saxe, Matthew D., New York, N. Y. Certain named confectionery.	15,551	May 29	43	988
Saxlehner, Andreas, Buda-Pesth, Austria-Hungary. Natural aperient water.	15,395	Apr. 24	43	394
Sayer, Robert C., Redland, Bristol, England. Apparatus for collecting, filtering, and storing water.	15,396	Apr. 24	43	394
Schaaf, Justus H., Gallipolis, Ohio. Medicines for female diseases.	15,250	Feb. 28	42	832
Schaaf, Justus H., Gallipolis, Ohio. Medicines for blood, liver, and kidney diseases.	16,116	Dec. 25	45	1464
Scheitlin & Co., Edward, New York, N. Y. Hosiery.	15,186	Feb. 14	42	618
Schenck, William T. Y., San Francisco, Cal. Packing constructed wholly of flax fiber with a record center.	15,412	May 1	43	514
Scheuer & Son, S., New York, N. Y. Shawl-straps.	15,674	July 10	44	112
Schlieder, Edward G., New Orleans, La. Lager-beer.	15,858	Sept. 11	44	1190
Schlitz Brewing Company, Joseph, Milwaukee, Wis. Beer.	15,342	Apr. 3	43	2
Schloss, Joseph, New York, N. Y. Shirt-bosoms.	15,646	June 26	43	1460
Schloss, Joseph, New York, N. Y. Shirt-bosoms.	15,517	May 22	43	890
Schloss, Joseph, New York, N. Y. Shirt-bosoms.	15,518	May 22	43	890
Schmachtenberg Bros., New York, N. Y. Pocket-cutlery, scissors, razors, and table-cutlery.	15,145	Jan. 31	42	386
Schmidt, Clara H., and W. B. Starbird, Stockton, Cal. Tonic medicine composed of iron and sarsaparilla.	15,718	July 24	44	346
Schmit, John P. C., Green Bay, Wis. Carbonized and natural mineral water.	15,981	Oct. 30	45	464
Schoenhut & Co., A., Philadelphia, Pa. Toy musical instruments.	15,216	Feb. 21	42	728
Schwarz & Goebel, Buffalo, N. Y. Remedy for rheumatism.	16,018	Nov. 20	45	838
Scotch Oats Essence Company, New York, N. Y. Pills.	15,443	May 8	43	636
Scott, Walter W., New York, N. Y. Emollient.	15,217	Feb. 21	42	728
Scott, Britha A., Chicago, Ill. Pulmonary bitters and blood-tonic.	15,356	Apr. 10	43	120
Seeger & Guernsey Company, New York, N. Y. Printed periodical publication.	15,552	May 29	43	988
Seely, Frank, New York, N. Y. Beer.	15,553	May 29	43	988
Seggermann, F., New York, N. Y. Chicory, prunes, and raisins.	15,097	Jan. 10	42	100
Sellers & Sons, John, New York, N. Y., and Sheffield, England. Engravers' plates, dies, and tools.	15,675	July 10	44	112
Sellers & Sons, John, New York, N. Y., and Sheffield, England. Knives, razors, shears, and scissors.	15,676	July 10	44	112
Semmes & Co., B. J., Memphis, Tenn. Stout.	15,781	Aug. 14	44	702
Shapleigh Hardware Company, A. F., St. Louis, Mo. Cutlery and edge-tools.	15,905	Sept. 25	44	1404
Sharpless Brothers, Philadelphia, Pa. Silk piece-goods.	15,977	Oct. 30	45	464
Sharrer, William L., and W. J. Murphy, Woodberry, Md. Salve.	16,079	Dec. 11	45	1196
Shanghnessy & Co., M., St. Louis, Mo. Whisky.	15,662	July 3	44	2
Shelton Company, Birmingham, Conn. Screws, bolts, rivets, tacks, and similar metallic fastenings.	15,473	May 15	43	760
Shepard, Norwell & Co., Boston, Mass. Corsets.	15,619	June 19	43	1352
Sherman Bros. & Co., Chicago, Ill. Yeast-powder.	16,129	Dec. 25	45	1464
Sherriff, William J., Pittsburg, Pa. Steam-water-ejectors.	15,146	Jan. 31	42	386
Shute & Merchant, Gloucester, Mass. Boneless fish.	15,374	Apr. 17	43	254
Siegel, Cooper & Co., Chicago, Ill. Cloaks.	15,112	Jan. 17	42	204
Siegel, Cooper & Co., Chicago, Ill. Umbrellas.	15,966	Oct. 23	45	350
Simmons Hardware Company, St. Louis, Mo. Horseshoe-nails.	15,620	June 19	43	1352
Simmons Hardware Company, St. Louis, Mo. Hammers.	16,094	Dec. 11	45	1196
Simmons Hardware Company, St. Louis, Mo. Hammers.	16,095	Dec. 11	45	1196
Sir Titus Salt, Bart, Sons & Company, (limited,) Saltaire, West Riding, county of York, England. Textile piece-goods, including plush, velvet, and other pile fabrics.	15,877	Sept. 18	44	1296

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Slayton, Emile, New York, N. Y. Ladies' ruchings.....	15,218	Feb. 21	42	728
Slazenger, Ralph, London, England. Bats for tennis, racket, cricket, and other games.....	15,098	Jan. 10	42	100
Slazenger, Ralph, London, England. Certain woolen wearing-apparel.....	15,113	Jan. 17	42	204
Sleeper Starch Company, Des Moines, Iowa. Laundry starch.....	15,978	Oct. 30	45	464
Small, P. A. & S., (limited,) York, Pa. Flour.....	15,952	Oct. 16	45	238
Smalley Manufacturing Company, Manitowoc, Wis. Fodder-cutters and their attachments.....	15,733	July 31	44	452
Smith Brothers, Boston, Mass. Hair-cleanser.....	15,219	Feb. 21	42	728
Smith & Egge Manufacturing Company, Bridgeport, Conn. Window-sash chains.....	15,554	May 29	43	988
Smith, Elliott T. (See Gates and Smith.)				
Smith, Francis X., McSherrystown, Pa. Cigars.....	15,953	Oct. 16	45	238
Smith & Frantz, Wilkes-Barré, Pa. Wheat-flour.....	16,107	Dec. 18	45	1321
Smith, George & John G., Inveraven, Banff, Scotland. Whisky.....	15,397	Apr. 24	43	394
Snow, Henry. (See Whitaker and Snow.)				
Société Anonyme Manufacture de Feutres et Chapeaux, Brussels, Belgium. Hats and caps.....	16,019	Nov. 20	45	838
Soltmann, E. G., New York, N. Y. Certain supplies and instruments for draftsmen and engineers.....	15,220	Feb. 21	42	728
Soltmann, Edward G., New York, N. Y. Draftmen's and engineers' supplies and instruments.....	15,326	Mar. 27	42	1294
Soltmann, Edward G., New York, N. Y. Certain supplies and instruments for draftsmen and engineers.....	15,555	May 29	43	988
Sommer, John, Jr., Newark, N. J. Wooden faucets for barrels, &c.....	15,287	Mar. 13	42	1066
Sommer, Leo, New York, N. Y. Certain toilet articles or preparations.....	15,734	July 31	44	452
Son Brothers & Co., San Francisco, Cal. Razors.....	15,663	July 3	44	2
Soter, George F., Washington, D. C. Bleaching-bluing.....	15,237	Feb. 28	42	832
Soule, John A., Hyde Park, Mass. Medicine for rheumatism, cholera, dyspepsia, sprains, wounds, and lung-diseases.....	16,000	Nov. 13	45	714
Southern Company of New York, New York, N. Y. Liquid-driers.....	16,020	Nov. 20	45	838
Southern Company of New York, New York, N. Y. Liquid-drier for painters' use.....	16,051	Nov. 27	45	950
Southern Company of New York, New York, N. Y. Preparation for preserving wood.....	16,052	Nov. 27	45	950
Southern Company of New York, New York, N. Y. Porous plaster, throat-tablets, infant medicine, tonic, and balsam.....	16,080	Dec. 11	45	1196
Southwell & Co., Charles, London, England. Confectionery, including jams, jellies, marmalades, preserved and canned fruits, and sweets.....	15,308	Mar. 20	42	1172
Sparks Medicine Company, Camden, N. J. Medicine for diseases of the liver and kidneys.....	15,147	Jan. 31	42	366
Spencer & Brown, Greeneville, Tenn. Horse and cattle powders.....	15,444	May 8	43	636
Spencer Optical Manufacturing Company, New York, N. Y. Optical instruments.....	15,979	Oct. 30	45	464
Spiral Weld Tube Company, East Orange, N. J. Metallic pipe and couplings for the same.....	15,171	Feb. 7	42	494
St. George's Engineering Co., Birmingham, county of Warwick, England. Bicycles and tricycles.....	15,677	July 10	44	112
Stacey Bros., Sheffield, county of York, England. Cutlery and edge-tools.....	15,859	Sept. 11	44	1190
Stacey Bros., Sheffield, county of York, England. Cutlery and edge-tools, including skates.....	15,860	Sept. 11	44	1190
Staiger & Co., A. H., New Orleans, La. Self-raising flour.....	15,445	May 8	43	636
Standard Medicine Company, New York, N. Y. Certain named medical remedies.....	15,251	Feb. 28	42	832
Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machines.....	15,357	Apr. 10	43	120
Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machines.....	15,375	Apr. 17	43	254
Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machines.....	15,376	Apr. 17	43	254
Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machines.....	15,960	Oct. 23	45	350
Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machines.....	15,961	Oct. 23	45	350
Standard Typewriter Manufacturing Company, New York, N. Y. Type-writing machines.....	15,962	Oct. 23	45	350
Stanton, Sampson & Co., Detroit, Mich. Coats, pantaloons, vests, shirts, overalls, and men's furnishings.....	16,096	Dec. 11	45	1196
Star Brass Manufacturing Company, Boston, Mass. Steam-gages.....	15,099	Jan. 10	42	100
Starbird, Walter B. (See Schmidt and Starbird.)				
Stärker, William, New York, N. Y. Stockings.....	15,413	May 1	43	514
Starr & Bro., Salem, N. J. Canned tomatoes.....	15,358	Apr. 10	43	120
Stauffer, David F., York, Pa. Oyster-crackers.....	15,719	July 24	44	346
Steinbrügge, Edward, New York, N. Y. Flour.....	15,238	Feb. 28	42	832
Stemmler, Theodore W., New York, N. Y. Kid or lamb skin leather gloves.....	16,067	Dec. 4	45	1072
Stern, Joseph, New York, N. Y. Beef-oil.....	15,701	July 17	44	236
Stevens Linen Works, Dudley, Mass. Linen crash.....	15,925	Oct. 2	45	2
Stevens & Son, D. T., Muncy Valley, Pa. Tea.....	15,839	Sept. 4	44	1072
Stiefel, Julius, and B. M. Cohen, Baltimore, Md., and New York, N. Y. Men's drawers.....	15,129	Jan. 24	42	300
Stosch, Hermann J. M., New York, N. Y. Leather oil-polish.....	15,603	June 12	43	1242
Strassheim & Jaeger, Chicago, Ill. Soap-powders.....	15,621	June 19	43	1352
Straus & Bro., J. L., Baltimore County, Md. Beer, ale, and porter.....	15,622	June 19	43	1352
Sudbury, Edward B., New York, N. Y. Hosiery.....	15,221	Feb. 21	42	728
Sudbury, Edward B., New York, N. Y. Hosiery and gloves.....	15,222	Feb. 21	42	728
Sulz-Bacher, Mirum, New York, N. Y. Salve or ointment.....	15,724	July 24	44	346
Swanton Suspender Company, Swanton, Vt. Suspenders.....	15,377	Apr. 17	43	254
Swinborne & Co., G. P., St. Andrew's Hill, London, England. Isinglass, gelatine, and gelatinous substances.....	15,447	May 8	43	636
Swinborne & Co., G. P., St. Andrew's Hill, London, England. Isinglass, gelatine, and gelatinous substances.....	15,448	May 8	43	636
Tanieri & Co., E., San Francisco, Cal. Whisky.....	15,130	Jan. 24	42	300
Taylor, Henry, Sr., Woodberry, Md. Bedbug-poison.....	15,288	Mar. 13	42	1066
Thal & Howe, St. Louis, Mo. Vinegar.....	15,647	June 26	43	1460
Thiers, Charles R., Plainfield, N. J. Medicinal wash for the mouth, throat, and gums.....	15,840	Sept. 4	44	1072
Thompson, Louise G., New York, N. Y. Ladies' hats and bonnets and millinery materials.....	15,131	Jan. 24	42	300
Thompson, Margaret D., Philadelphia, Pa. Compound washing and cleaning fluid.....	15,148	Jan. 31	42	366
Thompson, William J., Pittsburg, Pa. Hair-restorer.....	15,954	Oct. 16	45	238
Thomson, William S., London, England. Perfumed soaps, cosmetics, hair-oils, and perfumes.....	15,519	May 22	43	890
Thomson, William S., London, England. Smelling-salts.....	16,021	Nov. 20	45	838
Tobyhanna and Lehigh Lumber Company, Tobyhanna Mills, Pa. Clothes-pins.....	15,648	June 26	43	1460
Todd, Herbert W. (See Neal and Todd.)				
Tompkins, Samuel D. (See Williams and Tompkins.)				
Tonnar, George, Menomonee, Wis. Spavin liniment and blister and hoof-salve.....	15,841	Sept. 4	44	1072
Towne, Frank M., San Bernardino, Cal. Toilet salve.....	15,556	May 29	43	988
Townsend, Richard E., New York, N. Y. Liver-pills and baby-sirup.....	15,149	Jan. 31	42	366
Trenton Iron Company, Trenton, N. J. Wire bale-ties.....	15,343	Apr. 3	43	2
Triest & Co., New York, N. Y., and San Francisco, Cal. Hats.....	15,344	Apr. 3	43	2
Trommsdorff, H., Erfurt, Germany. Antiseptics and medicines for all skin diseases.....	15,842	Sept. 4	44	1072
Trujillo & Sons, Diego L., Key West, Fla., and New York, N. Y. Cigars.....	15,746	Aug. 7	44	572
Turnhill Wagon Company, Defiance, Ohio. Freight or farm wagons.....	15,557	May 29	43	988
Tuthill & Stoddard, Camden, N. Y. Preserved corn and succotash.....	15,446	May 8	43	636
Tuttle, Oscar, and C. Finneran, Painesville, Ohio. Metallic binding for oil-cloths, &c.....	15,878	Sept. 18	44	1296
Tyler & Embree, Belton, Tex. Certain proprietary medicines named.....	15,879	Sept. 18	44	1296



## Alphabetical list of registrants of trade-marks—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Underwood & Co., J., New York, N. Y. Ribbons for type-writing machines .....	16,108	Dec. 18	45	1324
Union Bag and Paper Company, Chicago, Ill. Paper bags .....	15,558	May 29	43	988
Union Bag and Paper Company, Chicago, Ill. Paper bags .....	15,559	May 29	43	988
Union Bag and Paper Company, Chicago, Ill. Paper bags .....	15,560	May 29	43	988
Union Cutlery Company, Chicago, Ill. Table, pocket, and toilet cutlery, and shears and scissors .....	15,720	July 24	44	346
Union Cutlery Company, Chicago, Ill. Razor-strops .....	15,721	July 24	44	346
Union Type Foundry, Chicago, Ill. Printing-presses, types, type ornaments, and printers' tools .....	15,661	Sept. 11	44	1150
United States Fuel Company, Jersey City, N. J. and New York, N. Y. Artificial fuel .....	16,117	Dec. 25	45	1464
United States Net and Twine Company, Brooklyn and New York, N. Y. Fish-lines, fish-hooks, fishing-reels, and fishing-flies .....	15,963	Oct. 23	45	350
Universal Plow Company, Canton, Ohio. Furrow-plows .....	15,223	Feb. 21	42	728
Universal Remedy Company, Lafayette, Ind. Medicine for the cure of the tobacco habit .....	15,187	Feb. 14	42	618
Upton, Charles S., New York, N. Y. Lamp chimneys and wicks for certain lamps .....	15,398	Apr. 24	43	394
Upton, Charles S., New York, N. Y. Gas-burners .....	15,967	Oct. 23	45	350
Vadakin, James H., Bethany and Peoria, Ill. Vegetable preparation for assimilating food, promoting digestion, and regulating the bowels .....	15,475	May 15	43	760
Valentine Company, Lawson, New York and Hunter's Point, N. Y. Flattening-varnishes .....	15,782	Aug. 14	44	702
Van Bibber, Andrew, Cincinnati, Ohio. Composition for printers' inking-rollers .....	15,172	Feb. 7	42	494
Van Wagenen, George, New York, N. Y. Safety fusible plugs for boilers .....	15,623	June 19	43	1352
Vansickle, S. D., Ashland, Pa. Cough medicine .....	15,906	Sept. 25	44	1404
Veazie, Thomas, Elmira, N. Y. Liniment, ointment, and condition powders .....	15,604	June 12	43	1242
Vernon, Richard R., New York, N. Y. Copying and white and colored tissue-paper .....	10,068	Dec. 4	45	1072
Vernon, Richard R., New York, N. Y. Copying and white and colored tissue-paper .....	16,069	Dec. 4	45	1072
Violet, Bird & Guy-Moyat, James, Bordeaux, France. Sardines .....	15,880	Sept. 18	44	1296
Vom Cleff, Robert. (See Hambleton and Vom Cleff.)				
Vom Dorp, August, New York, N. Y. Cutlery .....	16,024	Nov. 20	45	838
Vom Dorp, August, New York, N. Y. Cutlery .....	16,081	Dec. 11	45	1196
Von Laer, James P. W., Boston, Mass. Aerated beverages .....	15,881	Sept. 18	44	1296
Vrau & Co., Ph., Lille, France. Linen thread .....	15,882	Sept. 18	44	1296
Vrau & Co., Ph., Lille, France. Linen thread .....	15,883	Sept. 18	44	1296
Wagner, Joseph, Munich, Bavaria, Germany. Beer .....	15,327	Mar. 27	42	1294
Waldner & Baer, Kansas City, Mo. Cigars and cigarettes .....	15,150	Jan. 31	42	386
Walling, Walter A., Providence, R. I. Medical preparations for use in various fevers .....	16,022	Nov. 20	45	838
Wamsutta Mills, New Bedford, Mass. Shirtings and sheetings .....	15,783	Aug. 14	44	702
Wamsutta Mills, New Bedford, Mass. Shirtings .....	15,784	Sept. 18	44	1296
Wanamaker, John, Philadelphia, Pa. Refrigerators and water-coolers .....	15,758	Aug. 7	44	572
Wannamaker Manufacturing Company, Dr. J. G., Orangeburg, S. C. Remedy for dyspepsia .....	15,784	Aug. 14	44	702
Wannamaker Manufacturing Company, Dr. J. G., Orangeburg, S. C. Anti-malarial compound .....	15,785	Aug. 14	44	702
Wannamaker Manufacturing Company, Dr. J. G., Orangeburg, S. C. Preparation for use as a soporific .....	15,885	Sept. 18	44	1296
Warfield, Solomon D., Baltimore, Md. Canned oysters and vegetables .....	15,378	Apr. 17	43	254
Warner, H. H., Rochester, N. Y. Yeast .....	15,345	Apr. 3	43	2
Warren, Duncan, Detroit, Mich. Table-sauce .....	15,359	Apr. 10	43	120
Warren Hose Supporter Co., Boston, Mass. Hose-supporters .....	15,188	Feb. 14	42	618
Waters & Wrigley Manufacturing Company, Chicago, Ill. and New York, N. Y. Polishing and scouring soap .....	15,759	Aug. 7	44	572
Webb, Richard T., Greenisland, Belfast, Ireland. Linen and hemp goods of all descriptions .....	15,678	July 10	44	112
Webster & Co., Warren, Philadelphia, Pa. Feed-water purifiers and heaters .....	15,735	July 31	44	472
Webster, Humphrey P., Boston, Mass. Coffee .....	15,702	July 17	44	236
Weeks, Hiram W., Philadelphia, Pa. Laundry blue .....	15,703	July 17	44	236
Weeks & Potter, Boston, Mass. Medicinal tinctures and fluid extracts .....	15,679	July 10	44	112
Weidler, Samuel W., Cincinnati, Ohio. Flour .....	15,224	Feb. 21	42	728
Weikel & Smith Spice Company, Philadelphia, Pa. Extract of coffee .....	15,938	Oct. 9	45	130
Weil, Max, Kansas City, Mo. Gentlemen's clothing and furnishing goods .....	15,926	Oct. 2	45	2
Weld, Loretta B., Falmouth, Mass. Preparation of quinine .....	15,449	May 8	43	636
Weld, Loretta B., Falmouth, Mass. Preparation of quinine .....	15,450	May 8	43	636
Weller, William L., Jr., Louisville, Ky. Disinfecting-powder composed of lime, carbolic acid, and borax .....	15,760	Aug. 7	44	572
Welling, William M., New York, N. Y. Articles made of a plastic composition .....	15,980	Oct. 30	45	464
Western Knitting Company, Detroit, Mich. Socks .....	15,239	Feb. 28	42	832
Wex & Söme, Chemnitz, Saxony, Germany. Hosiery .....	15,379	Apr. 17	43	254
Weyman, Benjamin F., Pittsburg, Pa. Smoking and chewing tobacco .....	16,070	Dec. 4	45	1072
Wheeler, Son & Co., Russel, Utica, N. Y. Hot-air furnaces .....	15,717	July 24	44	346
Whichever & Co., T. A., Boston, Mass. Boots and shoes .....	15,157	Jan. 31	42	386
Whitaker, Aquilla B. and O. M., and H. Snow, Belair, Md. Topical remedies or liniments .....	15,927	Oct. 2	45	2
Whitaker, Octavian M. (See Whitaker and Snow.)				
Whitall, Tatum & Co., New York, N. Y. Corks .....	15,451	May 8	43	636
White Dental Manufacturing Company, S. S., Philadelphia, Pa., Chicago, Ill., New York and Brooklyn, N. Y., and Boston, Mass. Dental goods and materials of all kinds .....	15,474	May 15	43	760
White Tar Co., New York, N. Y. Articles manufactured with naphthaline for destroying insects and for disinfecting purposes .....	15,993	Nov. 6	45	594
Whitlock, Philip, Richmond, Va. Cheroots, cigars, and cigarettes .....	15,624	June 19	43	1352
Wiggin's Sons, H. B., New York, N. Y. Shade fabrics .....	15,930	Oct. 2	45	2
Williams Manufacturing Company, Plattsburg, N. Y. Sewing-machines .....	15,114	Jan. 17	42	204
Williams, Thomas H., and S. D. Tompkins, Jersey City, N. J., and Chicago, Ill. Radiators .....	15,414	May 1	43	514
Williams, Thomas H., and S. D. Tompkins, Jersey City, N. J. Radiators .....	15,520	May 22	43	86
Wills & Son, A. W., Birmingham, county of Warwick, England. Edge-tools .....	15,625	June 19	43	1352
Wills & Son, A. W., Birmingham, county of Warwick, England. Edge, agricultural, and mining tools and hammers .....	15,722	July 24	44	346
Wills & Son, A. W., Birmingham, county of Warwick, England. Edge, agricultural, and mining tools and hammers .....	15,723	July 24	44	346
Wilson & Co., Alexander, Philadelphia, Pa. Medicine for certain named diseases .....	15,151	Jan. 31	42	386
Winona Mill Company, Winona, Minn. Wheat-flour .....	15,309	Mar. 20	42	1172
Winona Mill Company, Winona, Minn. Wheat-flour .....	15,310	Mar. 20	42	1172
Winterbottom & Sons, Archibald, Manchester, county of Lancaster, England. Tracing-cloth .....	15,240	Feb. 28	42	832
Winterbottom & Sons, Archibald, Manchester, county of Lancaster, England. Tracing-cloth .....	15,241	Feb. 28	42	832
Winterbottom & Sons, Archibald, Manchester, county of Lancaster, England. Tracing-cloth .....	15,242	Feb. 28	42	832
Winterbottom & Sons, Archibald, Manchester, county of Lancaster, England. Tracing-cloth .....	15,243	Feb. 28	42	832
Winternitz & Bro., Samuel G., Baltimore, Md. Horseshoe nails .....	16,025	Nov. 20	45	838
Wolfe, Joel B., New York, N. Y. Schnapps .....	15,939	Oct. 9	45	130
Wollensak, John F., Chicago, Ill. Electric bells .....	15,664	July 3	44	2
Wollensak, John F., Chicago, Ill. Transom-lifters .....	15,665	July 3	44	2
Wollensak, John F., Chicago, Ill. Transom-lifters .....	16,097	Dec. 11	45	1196

*Alphabetical list of registrants of trade-marks—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Woolley & Co., B. M. Atlanta, Ga. Medicine for certain named diseases .....	15,152	Jan. 31	42	386
Wood, Sarah L. (See Chace and Wood.) .....				
Woolner, Jacob, Peoria, Ill. Beer .....	16,023	Nov. 20	45	838
Woolrich & Co., Palmer, Mass. Condiment for animal-food .....	15,328	Apr. 3	43	2
Worcester Corset Company, Worcester, Mass., and Chicago, Ill. Corsets .....	15,704	July 17	44	236
Wormser, Fellheimer & Co., New York, N. Y. Corsets .....	15,843	Sept. 4	44	1072
Wortz, Frank, Jr., Wausau, Wis. Catarrh remedy .....	15,561	May 29	43	988
Wrenn, Whitehurst & Co., Norfolk, Va. Plows and plow-castings .....	15,928	Oct. 2	45	2
Wrenn, Whitehurst & Co., Norfolk, Va. Plows and plow-castings .....	15,929	Oct. 2	45	2
Wright, George W., Akron, Ohio. Certain preparations of medicinal herbs .....	15,680	July 10	44	112
Wuchner, George G., Louisville, Ky. Acidulated drinks .....	15,955	Oct. 16	45	238
Zahn, Charles H., St. Louis, Mo. Medicinal salts .....	15,956	Oct. 16	45	238
Zerban, Andrew, New York, N. Y. Cotton underwear .....	15,415	May 1	43	514
Zerban, Andrew, New York, N. Y. Woolen underwear .....	15,416	May 1	43	514

# ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Volume.	Page.
Abbott, Frank I. (See Abbott, Lawrence, J., and F. I.)				
Abbott, James. (See Abbott, Lawrence, J., and F. I.)				
Abbott, Lawrence, J., and F. I., Chicago, Ill. "Rheumatic Cure"	5,591	May 15	43	760
Adce & Co., Fred, New York, N. Y. "The Handy Adjustable Combination for Wash Tray Wastes"	5,726	Nov. 6	45	594
Allen, W. C. (See Bailey, Willis, and Allen.)				
Armour Packing Co., Kansas City, Kans. "Luncheon Beef"	5,733	Nov. 13	45	714
Atwater, Bryan, Berlin, Conn. "Golden Ridge Apple Wine"	5,625	June 12	43	1242
Bagnall, Horatio S., Brockton, Mass. "Compound Extract of Ginger with Chamomile"	5,643	July 3	44	2
Bailey & Co., Charles J., Boston, Mass. "Bailey's Rubber Toilet Brush"	5,557	Apr. 17	43	254
Bailey, Lewis J., G. W. Willis, and W. C. Allen, Atlanta, Tex. "W. C. Allen's Nerve Balm"	5,540	Apr. 10	43	120
Baker, Nathan H., Providence, R. I. "Yards in Detail." (For Bleached Goods)	5,505	Mar. 6	42	966
Barber, James E., Davis City, Iowa. "Dr. J. H. Barber's Liniment"	5,652	July 17	44	236
Barkley, John C., New York, N. Y. "The Five Cent Tea"	5,716	Oct. 16	45	238
Beebe, James A., Philadelphia, Pa. "Lavender Cream." (For the Toilet)	5,564	Apr. 24	43	394
Bennett, R. R., Brooklyn, N. Y. "Bennett's Healing Dust for Horses"	5,565	Apr. 24	43	394
Best Brewing Company, Phillip, Milwaukee, Wis. "The Best Tonic"	5,495	Feb. 21	42	728
Best Brewing Company, Phillip, Milwaukee, Wis. "The 'Best' Tonic"	5,569	Apr. 24	43	394
Best Brewing Company, Phillip, Milwaukee, Wis. "Malt Mead." (For a Beverage)	5,675	Aug. 14	44	702
Best Brewing Company, Phillip, Milwaukee, Wis. "Malt Mead." (For a Beverage)	5,676	Aug. 14	44	702
Betts, H. M., La Grange, Ind. "Dr. H. M. Betts' Liver Capsules"	5,626	June 12	43	1243
Billings, John T., Denver, Colo. "Colorado Sticky Fly Paper"	5,664	July 31	44	452
Binder, Samuel M., Boyertown, Pa. "Glycerine Bay Rum"	5,571	May 1	43	514
Bishop, Henry, Baltimore, Md. "California Grape Juice"	5,707	Sept. 25	44	1404
Bixby, Samuel M., New York, N. Y. "Ready Glue"	5,609	May 29	43	988
Blackman, Phillie, New Haven, Conn. "Indelible." (For a Chemical to be Mingled with Oil Paint)	5,610	Aug. 7	44	572
Bliss, Samuel, Chicago, Ill. "Absolutely Pure Canada Sap Maple Syrup"	5,665	July 31	44	452
Blume, William M., New York, N. Y. "Blume's Tokayer Grape and Fruit Wine"	5,592	May 15	43	760
Blume, William M., New York, N. Y. "Blume's Tokayer Grape and Fruit Wine"	5,593	May 15	43	760
Bonham, John C., Sutherland, Iowa. "Bonham's Calendula Oil Compound"	5,572	May 1	43	514
Boot and Shoe Sole Laying Company, Portland, Me. "No Nails in this Shoe to Hurt the Feet, Soles Attached by Process of Boot and Shoe Sole Laying Co. Boston"	5,477	Jan. 31	42	386
Boss & Son, C. D., New London, Conn. "The Famous Lunch Milk Biscuit"	5,498	Feb. 28	42	832
Bowen's Sons, S., Philadelphia, Pa. "Corn Starch Substitute Wood Filler"	5,558	Apr. 17	43	254
Brann, Samuel, New York, N. Y. "Brann's Tar and Jamaica Rum Compound"	5,743	Nov. 27	45	950
Brenan, Joseph T., Baltimore, Md. "Black Neats Foot Oil" (For Harness Oil)	5,774	Dec. 25	45	1464
Bresnau, Thomas W., Washington, D. C. "American Furniture Polish"	5,644	July 3	44	2
Brown, Frederick, Philadelphia, Pa. "Antiseptic Pastilles"	5,761	Dec. 11	45	1196
Brown, Irving H., New York, N. Y. "The Howard Album Interchangeable Cards"	5,491	Feb. 21	42	728
Buck, Frank R., New York, N. Y. "Buck's Method of Packing Granular Material"	5,775	Dec. 25	45	1464
Bunting, Elwood B., Burlington, N. J. "Special." (For Ointment)	5,573	May 1	43	514
Burgdorf, Theo. R., New York, N. Y. "Medical Absorbing and Healing Powder"	5,712	Oct. 2	45	2
Calver, George W. H., Columbus, N. J. "Dr. Hartshorne's Harmless Bowel Corrector for Offensive Diarrhea"	5,600	May 22	43	890
Cameron & Co., A. J., Philadelphia, Pa., New York, N. Y., and Chicago, Ill. "German Knitting Worsted"	5,499	Feb. 28	42	832
Cameron & Co., A. J., Philadelphia, Pa., New York, N. Y., and Chicago, Ill. "German Knitting Worsted"	5,500	Feb. 28	42	832
Cameron & Co., A. J., Philadelphia, Pa., New York, N. Y., and Chicago, Ill. "German Knitting Worsted"	5,501	Feb. 28	42	832
Carey, John, East Syracuse, N. Y. "Carey's German Dyspepsia Remedy"	5,601	May 22	43	890
Carter, J. C., Atlanta, Ga. "Carter's Fancy." (For Flour)	5,650	Aug. 21	44	826
Chase, Merritt & Co., Boston, Marlborough, and Milford, Mass. "Our School Shoe"	5,523	Mar. 13	42	1066
Chase, Merritt & Co., Boston, Marlborough, and Milford, Mass. "Our School Shoe"	5,524	Mar. 13	42	1066
Cheatham, Mathew V. (See Richards and Cheatham.)				
Chellis, E. W., Baltimore, Md. "The Greatest on Earth. Dr. Karl's Bronchitis Balsam"	5,762	Dec. 11	45	1196
Clifford, James B., San Francisco, Cal. "Clifford's Punched Feather and Flower Tag"	5,717	Oct. 16	45	238
Closson, W. E., Independence, Iowa. "Closson's German Dyspepsia Panacea"	5,635	June 26	43	1460
Closson, W. E., Independence, Iowa. "Closson's Celebrated Pain Relief." (For a Medicine)	5,666	July 31	44	452
Cole & Co., J. W., Black River Falls, Wis. "Tonic Alternative Bloodbuilder and Blood Renewer"	5,776	Dec. 25	45	1464
Connelly, John L., New York, N. Y. "Floraplexion, A Positive Cure for Dyspepsia, Liver Complaint, and Consumption"	5,697	Sept. 25	44	1404
Cook, Charles, E. S. Everett, and H. B. Pennell, Portland, Me. "Ginger Wine and Pepsin." (For a Medicinal Preparation)	5,677	Aug. 14	44	702
Corbion, George, Jr., Philadelphia, Pa. "Fire Extinguisher"	5,480	Feb. 7	42	494
Crompton Company, Crompton and Providence, R. I. "Crompton Velvetene"	5,453	Jan. 3	42	2
Crowther, Llewellyn, Laurel, Md. "Roman Cement"	5,584	May 8	43	636
Cunningham & De Fourier Company, (limited.) London, England. "Pâté Foie Gras"	5,763	Dec. 11	45	1196
Daniels, Emma J., New Haven, Conn. "Temporary Enameling Cream"	5,528	Mar. 20	42	1172
Davids Company, Thaddens, New York, N. Y. "Electro Chemical." (For Ink)	5,681	Aug. 21	44	826
Davidson & Knowles Company, New York, N. Y. "Delaware White Lead"	5,698	Sept. 25	44	1404
Davies, E. Gomer, De Smet, Dak. Ter. "The Sioux Indian Antidote." (For a Medicine)	5,585	May 8	43	636
Davies, E. Gomer, De Smet, Dak. Ter. "Davies' Balm of Gilead or Pectoral Balsam"	5,627	June 12	43	1242
Day, Albert, Boston, Mass. "Manganese and Iron." (For a Medical Preparation)	5,602	May 22	43	890
Day, Walter L., New York, N. Y. "Day's Specific"	5,475	Jan. 24	42	300
De Fremery & Co., James, San Francisco, Cal. "Extra Black Bird Gin"	5,559	Apr. 17	43	254
Dean, Foster & Co., Boston, Mass. "The Boston Feeder." (For Nursing Bottles)	5,586	May 8	43	636
Dement, W. E., Astoria, Oreg. "Norwegian Pine Cure"	5,536	Apr. 3	43	2
Diffusible Tonic Company, Sturgis, Mich. "Diffusible Tonic"	5,603	May 22	43	890
Dole, William H., Melrose, Mass. "Dole's Perfect Horse & Cattle Invigorator"	5,653	July 17	44	236
Dorman, Charity, Van Ettenville, N. Y. "Mrs C. Dorman's Ointment"	5,587	May 8	43	636

*Alphabetical list of registrants of labels—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Douglas, Harold, New York, N. Y. "Hinton's Hygienic Pulmonary Preserver," (For a Remedy for Coughs, &c.)	5,486	Feb. 14	42	618
Dulauey, B. L., Bristol, Tenn. "Cranberry Horse Shoes"	5,530	Mar. 27	42	1294
Earnest, I. W., San Antonio, Tex. "West India Hair Tonic and Dandrifuge"	5,574	May 1	43	514
Earnest, I. W., San Antonio, Tex. "West India Liver Elixir"	5,575	May 1	43	514
Earnest, I. W., San Antonio, Tex. "West India Tonic Elixir of Sarsaparilla"	5,576	May 1	43	514
Earnest, I. W., San Antonio, Tex. "West India Balsam of Horehound and Coltsfoot"	5,577	May 1	43	514
Earnest, I. W., San Antonio, Tex. "West India Skin Cream"	5,654	July 17	44	236
El Modelo Cigar Manufacturing Co., Jacksonville, Fla. "El Modelo Cigar Man'f'g Company"	5,618	June 5	43	1120
El Modelo Cigar Manufacturing Co., Jacksonville, Fla. "El Modelo Cigar Man'f'g Comp."	5,619	June 5	43	1120
Estberg & Lonsdorf, Milwaukee, Wis. "Estberg's Headache Capsules"	5,689	Sept. 11	44	1190
Everett, Edward S. (See Cook, Everett, and Pennell.)				
Fairbank & Company, N. K., Chicago, Ill.; St. Louis, Mo.; New York, N. Y., and Omaha, Nebr. "Gold Dust," (For Washing Powder)	5,481	Feb. 7	42	494
Farnum & Co., John, Philadelphia, Pa. "Philadelphia Extra Weight & Color," (For Gingham, Tickings, and other Cotton Goods.)	5,645	July 3	44	2
Finlay & Brunswick, New Orleans, La. "Turner's Hair Tint"	5,610	May 29	43	988
Fiske, W. M. L., Brooklyn, N. Y. "Fresh Cold Drops," (For a Medical Compound)	5,511	Mar. 13	42	1066
Flithian, William W., Philadelphia, Pa. "Dyspepsia Remedy"	5,566	Apr. 24	43	394
Flint, Horace K., and I. K. Hipple, Philadelphia, Pa. "The High Arm Philadelphia Singer," (For Sewing Machines)	5,760	Dec. 4	45	1072
Fly & Co., David R., Galveston, Tex. "Eli Liver Pills"	5,690	Sept. 11	44	1190
Franceschini, Frank F., Philadelphia, Pa. "Ceratum Labiale"	5,727	Nov. 6	45	594
Frank, Leo, Arlington, Ill. "Frank's German Elderberry Balsam"	5,720	Oct. 23	45	350
French, George M., Randolph, Mass. "Rev. J. M. Coley's Regulator," (For a Medical Compound)	5,671	Aug. 7	44	572
Gardner, Lessor, Stanfordsville, N. Y. "Lesser Gardner Liniment"	5,764	Dec. 11	45	1196
Genese, David, Baltimore, Md. "Dentifrice Odorata"	5,628	June 12	43	1242
Gibbs & Ball Plow Company, Canton, Ohio. "Genuine Perfect Fitting Chilled Edge Share," (For Plows)	5,620	June 5	43	1120
Gilmore, William J., Sing Sing, N. Y. "Sing Sing Lime"	5,744	Nov. 27	45	950
Goff & Sons, D., Pawtucket, R. I. "Goff's Box-Plaited Braid"	5,470	Jan. 17	42	204
Goldenberg & Co., Lazarus, Brooklyn, N. Y. "777 (Kosher)," (For Soap)	5,709	Sept. 25	44	1404
Gradle & Strotz, Chicago, Ill. "Tip Top Smoking and Chewing Tobacco"	5,604	May 22	43	890
Green & Blackwell, New York, N. Y. "Sarsaparilla Chewing Gum"	5,708	Sept. 25	44	1404
Greene, Myron S., New York, N. Y. "German Vegetable Laxative Pills"	5,728	Nov. 6	45	594
Greene, Myron S., New York, N. Y. "German Tonic and Nerve Pills and Pastilles"	5,729	Nov. 6	45	594
Greene, Myron S., New York, N. Y. "German Electro-Medicated Battery or Electrified and Medicated Inhaler"	5,740	Nov. 20	45	838
Greene, Tweed & Co., New York, N. Y. "Belt Stud," (For Studs for Leather and Rubber Belts)	5,492	Feb. 21	42	728
Griffith, William H., New York, N. Y. "Note to Pharmacists and Special Note to Physicians," (For Mixture of Guaiac, Stillingia, &c.)	5,629	June 12	43	1242
Griswold, Catharine A., New York, N. Y. "The Hip-Jointa Corset"	5,672	Aug. 7	44	572
Haberle Brewing Company, Syracuse, N. Y. "Premium Stock Lager"	5,482	Feb. 7	42	494
Haigh, William H., Woonsocket, R. I. "Lincoln's Kino Balm," (For a Medicine)	5,659	July 24	44	346
Hance Brothers & White, Philadelphia, Pa. "Fruit Phosphates," (For a Syrup)	5,605	May 22	43	890
Harper, Martha M., Rochester, N. Y. "Mascaro Tonic for the Hair"	5,621	June 5	43	1120
Hawley & Hoops, New York, N. Y. "German Cocoa Powder"	5,611	May 29	43	988
Hawley & Hoops, New York, N. Y. "German Cocoa Powder"	5,622	June 5	43	1120
Healy & Bigelow, New Haven, Conn. "Kickapoo Cough Cure"	5,478	Jan. 31	42	386
Hegeman & Company, New York, N. Y. "Rudolph's Phosphorized Elixir of Oats"	5,541	Apr. 10	43	120
Heister, H. J., Memphis, Tenn. "Florida Syrup of Tamarinds and Prunes"	5,542	Apr. 10	43	120
Hiller, Frederick, Jr., San Francisco, Cal. "Hiller's Hydrastine Restorative"	5,454	Jan. 3	42	2
Hipple, Ida K. (See Flint and Hipple.)				
Horlacher, Frederick, Slaton, Pa. "Dr. Heintze's Sarsaparilla"	5,765	Dec. 11	45	1196
Horsey Manufacturing Co., Utica, N. Y. "Ideal Felt Tooth Polisher"	5,619	Sept. 25	44	1404
Horton, E. F., Greenwood, La. "Horton's Popular Price Liver Pills"	5,730	Nov. 6	45	594
Howarth, John H., Jr. (See Welch and Howarth.)				
Hunt Kiddie Company, Gloucester, Mass., and New York, N. Y. "Hepatic Extract," (For a Medicinal Preparation)	5,512	Mar. 13	42	1066
Huntington, John T. (See Slavin, Huntington and Kelley.)				
Hurlbut, Ward & Co., Des Moines, Iowa. "Des Moines Mixed Paint."	5,724	Oct. 30	45	464
Isaacs, Alexander W., Chicago, Ill. "Jewelry Wash"	5,455	Jan. 3	42	2
Ives, Frederick, Ogdensburg, N. Y. "The Balm of Zanthoreia," (For a Medicine)	5,578	May 1	43	514
Jacobs, Joseph, Atlanta, Ga. "Blackberry and Peppermint Cordial"	5,636	June 26	43	1460
Jacobs, Joseph, Atlanta, Ga. "Sweet Gum and Honey"	5,637	June 26	43	1460
Jacobs, Joseph, Atlanta, Ga. "Fragrant Cologne"	5,638	June 26	43	1460
Johnson, Frank E., Wiscasset, Me. "F. E. Johnson's Anodyne Liniment"	5,678	Aug. 14	44	702
Johnston Optical Co., Detroit, Mich. "Labels for Lenses"	5,766	Dec. 11	45	1196
Jones, D. H., Stamford, Conn. "D. H. Jones' Anti-Bilious Cathartic Pills"	5,483	Feb. 7	42	494
Jones, Louis B., New York, N. Y. "The Von Graef Neuro-Renal Troches"	5,691	Sept. 11	44	1190
Jones, Louis B., New York, N. Y. "The Von Graef Pulmonary Troches"	5,692	Sept. 11	44	1190
Jones, Louis B., New York, N. Y. "The Von Graef Hepatic Troches"	5,693	Sept. 11	44	1190
Jones, Louis B., New York, N. Y. "The Von Graef Brain and Nerve Troches"	5,694	Sept. 11	44	1190
Joy Company, Edwin W., San Francisco, Cal. "Joy's Vegetable (The California Remedy) Sarsaparilla."	5,725	Oct. 30	45	464
Kaskine Company, New York, N. Y. "Kaskine," (For Proprietary Medicine)	5,461	Jan. 10	42	100
Kelley, Will H. (See Slavin, Huntington and Kelley.)				
Kellogg & Co., E. H., New York, N. Y. "Anti-Friction Oil"	5,769	Dec. 11	45	1196
Kellogg & Co., E. H., New York, N. Y. "Anti-Rust Oil"	5,770	Dec. 11	45	1196
Kellogg & Co., E. H., New York, N. Y. "Anti-Friction Grease"	5,771	Dec. 11	45	1196
Kellogg, William P., Troy, N. Y. "Steel," (For Curry-Combs)	5,767	Dec. 11	45	1196
Kellogg, William P., Troy, N. Y. "Forged Steel," (For Curry-Combs)	5,768	Dec. 11	45	1196
Kelly & Co., Horace R., New York, N. Y. "La Sogna," (For Cigars and Cigarettes)	5,594	May 15	43	760
Kerr, M. A., Olney, Ill. "Mrs M. A. Kerr's Cough Syrup"	5,567	Apr. 24	43	394
Kiesel & Co., Fred J., Ogden, Utah Ter. "Gold Medal Whiskey"	5,734	Nov. 13	45	714
Kiesel & Co., Fred J., Ogden, Utah Ter. "Our Western Choice," (for Whisky)	5,735	Nov. 13	45	714
King & Co., Alex., New York, N. Y. "Alexr. King & Co. Machine Sewing Spool Cotton"	5,471	Jan. 17	42	204
King & Co., Alex., New York, N. Y. "Alexr. King & Co. Machine Sewing Spool Cotton"	5,472	Jan. 17	42	204
King, Edward J., Boonton, N. J. "You Can Fill Your Own Teeth"	5,731	Nov. 6	45	594
King, Susan H., Providence, R. I. "King's Purely Vegetable Cough Medicine"	5,537	Apr. 3	43	2
Kinney Tobacco Company, New York, N. Y. "Special Favours," (For Cigarettes)	5,538	Apr. 3	43	2
Kirk & Co., James S., Chicago, Ill. "Zenitha Soap," (For Laundry Soap)	5,506	Mar. 6	42	966
Kirk & Co., James S., Chicago, Ill. "Washitub Soap," (For Laundry Soap)	5,507	Mar. 6	42	966
Kirk & Co., James S., Chicago, Ill. "Commonwealth," (For Toilet Soap)	5,508	Mar. 6	42	966

## Alphabetical list of registrants of labels—Continued.

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Kirk & Co., James S., Chicago, Ill. "White Lavolite," (For a Washing Compound).....	5,509	Mar. 6	42	966
Kirk & Co., James S., Chicago, Ill. "Washboard Soap".....	5,513	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Carholie-Camphor," (For Laundry Soap).....	5,514	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "White Russian Bath," (For Soap).....	5,515	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Patchonly Toilet Soap".....	5,516	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Pimlico Toilet Soap".....	5,517	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Boston Oat Meal" (For Soap).....	5,518	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Musk Toilet Soap".....	5,519	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Planet," (For Laundry Soap).....	5,520	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Cambria," (For Laundry Soap).....	5,521	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Ceres," (For Laundry Soap).....	5,522	Mar. 13	42	1066
Kirk & Co., James S., Chicago, Ill. "Crystola," (For Soap).....	5,660	July 24	44	346
Kirk & Co., James S., Chicago, Ill. "White Cap," (For Laundry Soap).....	5,745	Nov. 27	45	950
Kittredge, Charles F., Rockland, Me. "Cole's Rheumatic Pain Annihilator".....	5,612	May 29	43	988
Kleinert, Isaac B., New York, N. Y. "The Feather Weight," (For Dress Shields).....	5,588	May 8	43	636
Kleinert, Isaac B., New York, N. Y. "Kleinert's Celebrated Indestructible," (For Dress Shields).....	5,589	May 8	43	636
Laue, Otto, Passaic, N. J. "Denver Benzoin Lotion," (For a Toilet Preparation).....	5,746	Nov. 27	45	950
Lawson Valentine Company, New York, N. Y. "Points of Rubbing Varnish".....	5,568	Apr. 24	43	394
Le Page Glue and Cement Company, Portland, Me., and Gloucester, Mass. "Improved Liquid Glue".....	5,679	Aug. 14	44	702
Le Page Glue and Cement Company, Portland, Me., and Gloucester, Mass. "W. N. Le Page's Improved Process Family Glue".....	5,700	Sept. 25	44	1404
Le Page Glue and Cement Company, Portland, Me., and Gloucester, Mass. "Le Page's Improved Process Family Glue. It sticks everything, Ornaments, Leather, Glass, Marble, etc.".....	5,701	Sept. 25	44	1404
Le Page Glue and Cement Company, Portland, Me., and Gloucester, Mass. "W. N. Le Page's Improved Process Family Glue".....	5,702	Sept. 25	44	1404
Le Page Glue and Cement Company, Portland, Me., and Gloucester, Mass. "Le Page's Improved Process Family Glue Mfr'd by the Le Page Glue & Cement Co.".....	5,703	Sept. 25	44	1404
Le Sure & Co., John G., Keene, N. H., and Boston, Mass. "Le Sure's Spavin Cure".....	5,543	Apr. 10	43	120
Leonard & Co., J. H., Kansas City, Mo. "Farmer's Coal".....	5,772	Dec. 11	45	1196
Liebetrat, Edward J., Buffalo, N. Y. "Dr. Hoffmann's Swedish Herbal Elixir".....	5,655	July 17	44	236
Locher, Charles A., Lancaster, Pa. "Locher's Renowned Rheumatic Remedy".....	5,579	May 1	43	514
Locke, William H., Jr., Brooklyn, N. Y. "Union Print Works," (For Textiles).....	5,476	Jan. 24	42	300
Lord, Charles F., New York, N. Y. "Thuja Soap".....	5,683	Aug. 28	44	948
Lutz, Jacob G., Springfield, Mass. "Lutz's Advertising Cards," (For Playing Cards).....	5,673	Aug. 7	44	572
Maas, Abraham W., New York, N. Y. "Art Flowers," (For Artificial Flowers).....	5,613	May 29	43	988
Maddin, T. M., Waco, Tex. "Maddin's Mosquito Mixture".....	5,529	Mar. 20	42	1172
Manahan, Margaret E., New York, N. Y. "Manahan's Air-Tight Sanitary Parchment Sheathing".....	5,674	Aug. 7	44	572
Manahan, Margaret E., New York, N. Y. "Manahan's Glycerine-Tar Health Paper," (For Toilet Paper).....	5,685	Sept. 4	44	1072
Manahan, Margaret E., New York, N. Y. "Manahan's Cherry Wood Brand," (For Sheathing Paper).....	5,747	Nov. 27	45	950
Manahan, Margaret E., New York, N. Y. "Manahan's Chinese Parchment Sheathing".....	5,748	Nov. 27	45	950
Manahan, Margaret E., New York, N. Y. "Nail Guide-Lines," (For Sheathing Paper).....	5,749	Nov. 27	45	950
Manahan, Margaret E., New York, N. Y. "Japanese Brand," (For Sheathing Paper).....	5,750	Nov. 27	45	950
Manahan, Margaret E., New York, N. Y. "Manahan's Air-Tight Jap Sheathing Paper".....	5,751	Nov. 27	45	950
Manahan, Margaret E., New York, N. Y. "Manahan's Black Walnut Brand," (For Sheathing Paper).....	5,752	Nov. 27	45	950
Manitou Mineral Water Company, Manitou Springs, Colo. "Manitou Natural Mineral Table Water".....	5,544	Apr. 10	43	120
Mansfield, George L., New Haven, Conn. "Chinese Corn Salve".....	5,580	May 1	43	514
Marcher, George B., New York, N. Y. "Marcher's Effervescent Tablets".....	5,686	Sept. 4	44	1072
Marshall, Ernest C., Boston, Mass. "Mrs Hunting's Baby Cordial".....	5,456	Jan. 3	42	2
Martin, Horace J., Washington, D. C. "Dr. Martin's Health Restorer and Blood Purifier".....	5,639	June 26	43	1460
Marvelous Cough Syrup Company, Havre de Grace, Md. "Marvelous Cough Syrup".....	5,630	June 12	43	1242
Marvelous Cough Syrup Co., Havre de Grace, Md. "Marvelous," (For Cough Syrups).....	5,773	Dec. 18	45	1324
McAllister, Heyward H. (See Tiers and McAllister.)				
McAllister, John, Albany, N. Y. "Dr. McAllister's Compound Spirits of Juniper and Extract of Buchu, A Sure and Positive Cure for all Kidney and Genito-Urinary Diseases".....	5,462	Jan. 10	42	100
McGrevey, G. L., Baltimore, Md. "G. L. McGrevey's Compound Tonic".....	5,606	May 22	43	890
McKelvey, James W., Atchison, Kans. "Atchison Cornice Works," (For Metal Cornices, &c.).....	5,614	May 29	43	988
Megill, Edward L., Brooklyn, N. Y. "Golden-Steel Gauge Pins," (For Printers' Feed Gages).....	5,531	Mar. 27	42	1294
Merwin, F. J., Highwood, Conn. "Merwin's Old Reliable Remedy".....	5,777	Dec. 25	45	1464
Milburn & Williamson, Detroit, Mich. "Golden Seal and Sandal Wood Combination," (For a Medicine).....	5,581	May 1	43	514
Milburn & Williamson, Detroit, Mich. "Baby Cough Syrup".....	5,582	May 1	43	514
Moore, Christopher, Providence, R. I. "Moore's Balsam," (For a Remedy for Colds).....	5,732	Nov. 6	45	594
Morgan, Samuel E., Howard City, Mich. "Dr. S. E. Morgan's Inhaler and Universal Cure for Catearrh, Asthma, Sore Throat, Neuralgia in the Head".....	5,736	Nov. 13	45	714
Myers, James H., Norwich, Conn. "Dr. Button's Coffee".....	5,640	June 26	43	1460
Myers, William R., Haddonfield, N. J. "Ready," (For Fuel Blocks and Fire Kindlers).....	5,667	July 31	44	452
Nance, Lee, New York, N. Y. "The U. S. Checker-Diamond Problem," (For a Game or Puzzle).....	5,661	July 24	44	346
National Food Company, Fond du Lac, Wis. "National Horse, Cattle, Poultry and Swine Food".....	5,715	Oct. 9	45	130
National Plaster Company, South Boston, Mass. "Comfort Corn Plaster".....	5,710	Sept. 25	44	1401
Nelson Chemical Company, Newton, Mass. "Nelson's Acid Lactate".....	5,753	Nov. 27	45	950
Nelson Chemical Company, Newton, Mass. "Nelson's Acid Lactate".....	5,754	Nov. 27	45	950
Nelson Chemical Company, Newton, Mass. "Nelson's Acid Lactate".....	5,755	Nov. 27	45	950
Nelson Chemical Company, Newton, Mass. "Lactic Acid".....	5,756	Nov. 27	45	950
Newby, Frank S., and G. E. Rockwell, Indianapolis, Ind. "Mexican Cereus Pollen".....	5,484	Feb. 7	42	494
Niagara White Grape Company, Lockport, N. Y. "The Niagara White Grape Company".....	5,595	May 15	43	760
Nonantum Worsted Company, Boston and Newton, Mass. "Dr. Hall's Sanitary Knitting Yarn".....	5,545	Apr. 10	43	120
Norwood & Co., Seth, Beverly, Mass. "Indestructible School Shoe".....	5,687	Sept. 4	44	1072
Ogden, Charles E., London, county of Middlesex, England. "Arnold's Office & Steel Pen Writing Ink".....	5,479	Jan. 31	42	386
Ogden, Charles E., London, county of Middlesex, England. "Arnold's Chemical Writing Fluid".....	5,532	Mar. 27	42	1294
Ogden, Charles E., London, county of Middlesex, England. "Machine Copying Ink".....	5,533	Mar. 27	42	1294
Ogden, Charles E., London, county of Middlesex, England. "Arnold's Chemical Blue Black Copying Fluid".....	5,534	Mar. 27	42	1294
Ogden, Charles E., London, county of Middlesex, England. "Arnold's Scarlet Writing Ink".....	5,535	Mar. 27	42	1294
Olipphant, Louis, Philadelphia, Pa. "Olipphant's American Liver Pills".....	5,471	Nov. 20	45	838
Paradis, Adrian, Brooklyn, N. Y. "Dr. White's Sarsaparilla".....	5,487	Feb. 14	42	618
Paradis, Adrian, Brooklyn, N. Y. "Dr. White's Sarsaparilla".....	5,488	Feb. 14	42	618
Paradis, Adrian, Brooklyn, N. Y. "Dr. White's Pulmonic Balsam".....	5,493	Feb. 21	42	728
Paradis, Adrian, Brooklyn, N. Y. "Dr. White's Pulmonic Balsam".....	5,494	Feb. 21	42	728
Partridge & Co., A. P., St. Paul, Minn. "Dr. Partridge's Pain Queller," (For a Medicine).....	5,623	June 5	43	1120
Partridge & Co., A. P., St. Paul, Minn. "Dr. Partridge's Ointment".....	5,704	Sept. 25	44	1104



*Alphabetical list of registrants of labels—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Patton, Ed. G. and T., Sulphur Springs, Tex. "Patton's Chill Tonic Syrup" .....	5,525	Mar. 13	42	1066
Patton, Texana. (See Patton, Ed. G. and T.) .....				
Peacock, William C., Atlanta, Ga. "F. S. Peacock's Aromatic Extract of Blackberry and Ginger" ..	5,560	Apr. 17	43	254
Pemberton Medicine Co., Atlanta, Ga. "Lemon and Orange Elixir" .....	5,546	Apr. 10	43	120
Pennell, Henry B. (See Cook, Everett, and Pennell.) .....				
Platt, Chester C., Ithaca, N. Y. "Platt's Cold in the Head Cure" .....	5,757	Nov. 27	45	950
Pomeroy, Henry R., Indianapolis, Ind. "Pomeroy's Celery Candy for the Brain, Nerves and Breath" .....	5,758	Nov. 27	45	950
Popham & Co., Thomas, Philadelphia, Pa. "Asthma Specific" .....	5,721	Oct. 23	45	350
Powers, Edgar C., Danvers, Mass. "Power's Asthma Specific" .....	5,711	Sept. 25	44	1404
Price, Russell C., Waukegan, Ill. "Dr. Price's Stomachic Powders" .....	5,547	Apr. 10	43	120
Price, Russell C., Waukegan, Ill. "Dr. Price's Heart Regulator." (For a Medicine) .....	5,548	Apr. 10	43	120
Price, Russell C., Waukegan, Ill. "Dr. Price's Red Liniment" .....	5,549	Apr. 10	43	120
Price, Russell C., Waukegan, Ill. "Dr. Price's Black Liniment" .....	5,550	Apr. 10	43	120
Puchta, Charles, New York, N. Y. "Puchta's Instantaneous Flash-Light-Tablets" .....	5,656	July 17	44	235
Radam, William, Austin, Tex. "Wm. Radam's Microbe Killer" .....	5,463	Jan. 10	42	100
Rano, Charles O. (See Seisser and Rano.) .....				
Reynolds Jewelry Co., Providence, R. I. "National Democratic Badge 1888 Presidential Campaign" ..	5,641	June 26	43	1460
Reynolds Jewelry Co., Providence, R. I. "National Republican Badge 1888 Presidential Campaign" ..	5,668	July 31	44	452
Richards, Albert B., and M. V. Cheatham, Sherman, Tex. "Hunt's Cure for Skin Diseases and Eruptions" .....	5,631	June 12	43	1242
Richards, Albert B., and M. V. Cheatham, Sherman, Tex. "Cheatham's Cream Balsam," (For a Medicine.) .....	5,632	June 12	43	1242
Rockwell, George E. (See Newby and Rockwell.) .....				
Rogers & Co., M. J., Lewiston, Me. "Rogers' Inhalant an Inhaling Preparation" .....	5,662	July 24	44	346
Rothschild Bros. & Co., New York, N. Y. "Elixir of Peptonate of Iron" .....	5,705	Sept. 25	44	1404
Roy Drug Co., Boston, Mass. "Dr. Roy's White Injection of Milk-Weed" .....	5,502	Feb. 23	42	832
Russell, Carrie B., Minneapolis, Minn. "The Wonderful Spanish Herb Cure" .....	5,778	Dec. 25	45	1464
Russell, P. J., Perrysville, Ohio. "Russell's Natural Remedy," (For a Medicine for Diseases of the Liver, &c) .....	5,526	Mar. 13	42	1066
Sanhorn, F. E., Omaha, Nebr. "Standard Stock Liniment" .....	5,583	May 1	43	514
Sanns & Son, F. A., Gallipolis, Ohio. "Sanns' Rheumatic Specific" .....	5,607	May 22	43	890
Schaer, Charley. (See Schaer and Schuelzkey.) .....				
Schaer, John and C., and J. C. Schuelzkey, Davenport, Nebr. "Schaer Brothers & Company, Hog and Chicken Cholera Cure and Preventative" .....	5,688	Sept. 4	44	1072
Schmidt, Clara H., and W. B. Starbird, Stockton, Cal. "Kickapoo Springs Mineral Water" .....	5,570	Apr. 24	43	394
Schuelzkey, Joseph C. (See Schaer and Schuelzkey.) .....				
Schwab & Bros., G., New York, N. Y. "Novelty Glove Fitting Jersey" .....	5,457	Jan. 3	42	2
Schwenzner, Gotthard, New York, N. Y. "Coca Tobacco and Cigarettes" .....	5,648	July 10	44	112
Seaman, John F., New York, N. Y. "Lemon Honey," (For a Pulmonary Remedy) .....	5,551	Apr. 10	43	120
Seaton, John W., Louisville, Ky. "Walker's Rheumatic Cure" .....	5,552	Apr. 10	43	120
Sedgwick & Smith, Sioux City, Iowa. "Celery Phosphate" (for a Sirup for Soda Fountains) .....	5,779	Dec. 25	45	1464
Seguin, A. J., Jacksonville, Fla. "Hot Springs Blood Purifier. (For a Medicine) .....	5,657	July 17	44	236
Seisser, Frederick, and C. O. Rano, Buffalo, N. Y. "Rano's Dandelion Liver Pills" .....	5,634	June 19	43	1352
Selleck, Wilbur H., Williamstown, N. Y. "Clover Blossom Compound" (For a Blood Purifying Medicine) .....	5,642	June 26	43	1460
Shafer, William, Camden, N. J. "Searching Syrup." (For a Cough) .....	5,596	May 15	43	760
Shaw, Charles A., Boston, Mass. "Russian Oil Stove Blacking" .....	5,464	Jan. 10	42	100
Shaw, Charles A., Boston, Mass. "Directions for Use," (For Stove Polish) .....	5,465	Jan. 10	42	100
Shively, Samuel A., Rock Rapids, Iowa. "Shively's Celebrated Catarrh Remedy" .....	5,473	Jan. 17	42	204
Slavin, Michael, J. T. Huntington, and W. H. Kelley, Indianapolis, Ind. "Slavin's Infallible Female Tonic" .....	5,737	Nov. 13	45	714
Smith Brothers, Boston, Mass. "Leroy's Mexican Egg Shampoo Cream" .....	5,503	Feb. 28	42	832
Smith, Emil F., New York, N. Y. "The Celebrated South of England Sauce" .....	5,718	Oct. 16	45	233
Smith, Mary V., Baltimore, Md. "Baltimore Brand Crab-Meat" .....	5,590	May 8	43	636
Snell, Heitshu & Woodward, Portland, Oreg. "Dutard's Specific," (For a Remedy for Skin Diseases) ..	5,539	Apr. 3	43	2
Snell, Heitshu & Woodward, Portland, Oreg. "Dr. Henley's Dandelion Tonic" .....	5,553	Apr. 10	43	120
Southwell & Co., Charles, London, England. "Specially Prepared for —" (For Preserves, Confectionery, &c.) .....	5,527	Mar. 13	42	1066
Spencer, Thomas D., Rochester, N. Y. "Spencer's Fumigating Diphtheritic Pastilles. A Fumar Antiseptic for the Prophylactic and Specific Treatment of Diphtheria" .....	5,466	Jan. 10	42	100
Standard Medicine Company, New York, N. Y. "Peptic," (For a Remedy for Indigestion) .....	5,504	Feb. 28	42	832
Starbird, Walter B. (See Schmidt and Starbird.) .....				
Stein, Bloch & Co., Rochester, N. Y. "Stein, Bloch & Co., Wholesale Tailors" .....	5,458	Jan. 3	42	2
Stiner, Heumber & Co., Columbus, Ga. "Wooldridge's Wonderful Cure" .....	5,597	May 15	43	760
Stockton & Willis, Richmond, Ky. "White's Worm Powders." (For a Medicine) .....	5,554	Apr. 10	43	120
Stonaker, William, Cranbury, N. J. "Stonaker's Cement" .....	5,658	July 17	44	236
Stoops, N. D., Philadelphia, Pa. "White Filtered Stainless Sewing Machine Oil" .....	5,719	Oct. 16	45	238
Strachan, John D., Muir, Mich. "Dr. E. R. Jebbs Permanent Pile Cure" .....	5,722	Oct. 23	45	350
Sutherland, Caroline V., Lathrop, Cal. "Mrs Sutherland's Salve" .....	5,713	Oct. 2	45	2
Taintor, Mary H., New York, N. Y. "Lotion" .....	5,714	Oct. 2	45	2
Taylor, W. Scott, Trenton, N. J. "Taylor's Rheumatic Cordial" .....	5,723	Oct. 23	45	350
Thompson, Margaret D., Philadelphia, Pa. "Mrs Thompson's Washing and Cleaning Compound" ..	5,489	Feb. 14	42	618
Thomson, William S., London, England. "Crown Lavender Salts" .....	5,742	Nov. 20	45	838
Thorpe, Philip, New York, N. Y. "Dr. Philip Thorpe's Compounded Fruit Juices, A Delicious Morning Laxative" .....	5,738	Nov. 13	45	714
Tiers, Alexander H. and C., and H. H. McAllister, New York, N. Y. "Germ Exterminating Medicine" .....	5,490	Feb. 14	42	618
Tiers, Cornelius. (See Tiers and McAllister.) .....				
Tobin, John J., Austin, Tex. "Microbe Destroyer" .....	5,474	Jan. 17	42	204
Todd, T. Erskine, Laurens, S. C. "Dr. T. Erskine Todd's Stimulating Bonquets" .....	5,669	July 31	44	452
Trimble, R. F. P., Seymour, Mo. "Trimble's Ozark Mountain Herb Salve" .....	5,615	May 29	43	988
Trischka, John, New York, N. Y. "Improved Stencils" .....	5,561	Apr. 17	43	254
Tyree, William R., Staunton, Va. "Tyree's Southern Carminative" .....	5,485	Feb. 7	42	494
Underwood & Co., John, New York, N. Y. "Underwood's Copying Ink Ribbon" .....	5,467	Jan. 10	42	100
Underwood & Co., John, New York, N. Y. "Underwood's Indefinite Copyable Ribbon" .....	5,468	Jan. 10	42	100
Underwood & Co., John, New York, N. Y. "Underwood's Record Ink Ribbon" .....	5,469	Jan. 10	42	100
Union Bag and Paper Company, Chicago, Ill. "Kangaroo." (For Paper Bags) .....	5,616	May 29	43	988
Union Bag and Paper Company, Chicago, Ill. "Lion." (For Paper Bags) .....	5,617	May 29	43	988
Union Indurated Fibre Company, New York, N. Y. "Indurated Fibre." (For Ware Made of Indurated Wood Fibre) .....	5,496	Feb. 21	42	728
Upton, Charles S., New York, N. Y. "Rochester Gas Burner" .....	5,649	July 10	44	112
Van Derveer & Holmes Biscuit Company, New York, N. Y. "Triangular." (For Biscuits) .....	5,555	Apr. 10	43	120

*Alphabetical list of registrants of labels — Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Vandergrift, Will am K., Jamestown, N. Y. "Carson's Celebrated Remedy for Purifying the Blood"	5,598	May 15	43	760
Wadleigh, F. R., Alton, N. H. "Wadleigh's Little Vegetable Pills"	5,681	Aug. 28	41	948
Wadleigh, F. R., Alton, N. H. "Wadleigh's Rheumatic Cure"	5,696	Sept. 18	44	1296
Wanamaker, John, Philadelphia, Pa. "Wanamaker's Shoe Dressing"	5,556	Apr. 10	44	120
Warner, William R., Philadelphia, Pa. "Chalybeate Saline"	5,562	Apr. 17	43	254
Webster & Co., Warren, Philadelphia, Pa. "Vacuum." (For Feed Water Purifiers and Heaters)	5,616	July 3	41	2
Weigle, Gilbert H., Harrisburg, Pa. "Weigle's Malaria and Ague Exterminator"	5,706	Sept. 25	44	1404
Welch, Willard C., Jr., Oakland, Cal., and J. H. Howarth, Jr., New Haven, Conn. "Welch's Ego-podium, A Positive Cure for Rheumatism and Gout"	5,459	Jan. 3	42	2
Westcott, Rachel R., Syracuse, N. Y. "La Bonta's French Shampoo Cream"	5,633	June 12	43	1242
Whitney, William, Gouverneur, N. Y. "Whitney's Spring Tonic and Alterative Compound"	5,497	Feb. 21	42	728
Whittington, James A., Montrose, Ill. "New Discovery for Rheumatism"	5,624	June 5	41	1120
Whittington, R. W., Louisville, Ky. "Dr. R. W. Whittington's Blood and Liver Pills"	5,663	July 24	41	316
Whittlesey & Company, Malone, N. Y. "Malone Pants"	5,682	Aug. 21	41	826
Wigand, Otto, Philadelphia, Pa. "German Vermilion, (For Paint)"	5,695	Sept. 11	41	1190
Wilkinson, Roberts & Co., Poughkeepsie, N. Y. "Dr. C. N. Campbell's Cough Cure"	5,739	Nov. 13	45	711
Williams, George H. A., Concord, N. H. "Williams Sure Cure." (For Salve.)	5,647	July 3	44	2
Willis, G. W. (See Bailey, Willis, and Allen.)				
Winship, Henry S., New Haven, Conn. "Fly Paper"	5,608	May 22	43	890
Wise & Co., Harry, Chattanooga, Tenn. "Quarter Hour Headache Cure"	5,759	Nov. 27	45	950
Wolf-Wilson Drug Company, St. Louis, Mo. "Orange Phosphate"	5,650	July 10	41	112
Woodhull, J. Truesdale, Jersey City, N. J. "Truesdale's Healing Salve, 'Boro' Thymol Compound"	5,510	Mar. 6	42	106
Worcester Corset Co., Worcester, Mass. "Lock Clasp." (For Corsets).	5,460	Jan. 3	42	2
Wright, George W., Akron, Ohio. "Root-Tea-Na." (For a Vegetable Medical Compound)	5,651	July 10	44	112
Wright, Heilig & Co., Salisbury, N. C. "Sure Venereal Cure"	5,599	May 15	43	760
Yehling & Coenen, New York, N. Y. "Brilliant Coffee." (For Roasted Coffee)	5,563	Apr. 17	43	251

## DISCLAIMERS.

Name, residence, and invention.	No.	Filed.	Official Gazette.	
			Vol.	Page.
Harding, John H., Milwaukee, Wis.; disclaimer filed by the patentee Embossing upon plastered walls and other surfaces.	278,238	Jan. 19, 1888	42	386
Johns, Henry W., New York, N. Y.; disclaimer to first, second, and third claims filed by patentee and the assignee, The H. W. Johns Manufacturing Company. Boiler coverings	262,429	May 1, 1888	43	636
Osgood, James W., New York, N. Y.; disclaimer filed by the assignee, Walter C. Redman Hoisting apparatus and safety-hatches	124,614	Feb. 8, 1888	42	618
Otley, Samuel, Grand Haven, Mich.; disclaimer to part of the combination filed by the patentee. Cement for steam-joints	191,249	Nov. 26, 1888	45	1072
Porter, Frederick E., Baltimore, Md.; disclaimer filed by himself and assignee, Rodney B. Smith. Paper-bag machine	205,133	Mar. 22, 1888	42	1294
Richardson, Frederick, Providence, R. I.; disclaimer to two clauses of claims filed by the assignee, W. H. Huntington, Boston, Mass. Dies for securing heel-plates to rubber shoes	296,623	Sept. 26, 1888	45	130
Tenny, Charles F., and Thomas J. Hobbs, Baldwinville, Mass.; disclaimer to the first nine claims filed by the assignee, Gilman Waite, Templeton, Mass. Combined carriage and chair. (Reissue)	8,166	June 9, 1888	43	1352
Van Liew, Dennis P., Aurora, Ill.; disclaimer filed by the patentee. Car-door hanger	245,035	Mar. 21, 1888	42	1234
Wilson, James G., New York, N. Y.; disclaimer to a part of specification. Corrugated metal rolling-shutters	295,373	May 8, 1888	43	700



# ALPHABETICAL LIST OF INVENTIONS.

Invention.	Name.	No.	Date.	Montbly volume.		Official Gazette.	
				Specification.	Drawing.	Volume.	Page.
Abacus.....	E. P. Clark and D. L. Wren.....	378,866	Mar. 6	10	3	42	969
Abdominal supporter.....	L. B. Craig.....	390,570	Oct. 2	527	138	45	106
Abdominal supporter.....	H. N. Gray.....	395,050	Dec. 25	2044	528	45	1493
Abrading-pad.....	J. H. Riedell.....	381,076	June 5	347	98	43	1187
Absorption-tower.....	H. P. Weidig.....	376,929	Jan. 24	1754	461	42	357
Acetone. Manufacture of.....	G. Rumpf.....	385,777	July 10	665	174	44	138
Acetone. Manufacture of.....	G. Rumpf.....	393,079	Nov. 20	1320	344	45	865
Acid and heavy magnesia. Manufacture of carbonic	H. Leffmann.....	383,957	June 5	171	50	43	1153
Acid. Apparatus for making sulphurous.....	C. E. Getchell.....	378,673	Feb. 28	1987	526	42	908
Acid distributor. Sulphuric.....	S. Frazier.....	388,406	Aug. 28	1879	502	44	953
Acid-distributing apparatus. Sulphuric.....	F. W. Chappell.....	378,289	Feb. 21	1432	{ 373 374 }	42	789
Acid ester. Manufacture of salicylic.....	C. Kolbe.....	377,311	Jan. 31	2303	.....	42	471
Acid esters. Manufacture of salicylic.....	C. Kolbe.....	383,306	May 22	2134	.....	43	950
Acid. Manufacture of phosphoric.....	W. B. Giles and A. Shearer.....	393,428	Nov. 27	1825	.....	45	973
Acid. Obtaining sulphurous.....	E. Hünich and M. Schroeder.....	376,883	Jan. 24	1695	443	42	345
Acid phosphate. Making.....	C. Glaser.....	389,566	Sept. 18	1160	.....	44	1307
Acid-proof receptacle and lining therefor.....	E. R. Rand.....	394,296	Dec. 11	836	222	45	1240
Acid. Treating sludge.....	H. De Gronsilliers.....	378,774	Feb. 28	2120	.....	42	932
Acids of phenols, &c. Production of iodized sulpho-	E. Ostermayer.....	393,388	Nov. 27	1771	.....	45	963
Acids of the diamidoazo-benzidines. Production of	L. Paul.....	380,402	Apr. 3	140	.....	43	30
disulpho and dicarbo							
Acids of the diamidoazo-benzidines. Production of	L. Paul.....	380,403	Apr. 3	143	.....	43	30
disulpho and dicarbo							
Acidometer.....	P. Bonte.....	383,433	May 29	2324	616	43	990
Acoustical instruments. Mounting for diaphragms	C. S. Tainter.....	392,763	Nov. 13	866	221	45	769
for							
Adding and subtracting machine.....	S. J. Webb.....	392,837	Nov. 13	982	252	45	791
Adding and writing machine.....	A. G. Ludlum.....	384,373	June 12	808	210	43	1282
Adding-machine.....	C. B. F. Lincoln.....	390,788	Oct. 9	822	219	45	169
Adding-machine.....	C. C. Moore.....	383,973	June 5	196	57, 58	43	1158
Adding-machine.....	J. H. Schaarrenberger.....	391,430	Oct. 23	1753	{ 469 470 }	45	350
Adding-machine.....	J. C. Seymour.....	391,088	Oct. 16	1283	342	45	262
Adding-machine.....	W. Snider.....	394,219	Dec. 11	714	190	45	1216
Addressing-machine.....	S. C. Mace and G. R. Jackson.....	390,382	Oct. 2	260	69, 70	45	55
Addressing-machine.....	S. C. Thompson.....	376,762	Jan. 24	1500	{ 395 396 }	42	319
Addressing-machine. Automatic.....	J. A. Brooks and W. C. Beal.....	392,098	Oct. 30	2724	749	45	565
Adjustable bracket.....	W. Van Horn.....	391,438	Oct. 23	1765	472	45	361
Adjustable chair and swing.....	C. Bastian.....	383,206	May 22	1980	520	43	921
Adjustable handle.....	W. A. Faber.....	384,028	June 5	277	77	43	1174
Adjustable joint.....	G. C. Sweett.....	384,297	June 12	685	182	43	1261
Adjustable screen.....	A. Vivartas.....	393,944	Dec. 4	304	83	45	1131
Advertisements. Device for displaying.....	J. E. Woolverton.....	392,939	Nov. 13	1115	{ 289 290 }	45	817
Advertising apparatus.....	A. Duboce.....	379,105	Mar. 6	359	102	42	1033
Advertising-cabinet.....	I. B. Stone.....	377,414	Feb. 7	107	22	42	515
Advertising-cards. Device for displaying.....	O. C. Hoffmann.....	380,391	Apr. 3	126	37, 38	43	27
Advertising-circular.....	M. B. Church.....	376,856	Jan. 24	1658	433	42	338
Advertising device.....	F. C. Briggs.....	377,925	Feb. 14	884	228	42	679
Advertising device and cigar-cutter. Combined.....	W. H. Gilman.....	392,552	Nov. 6	549	139	45	699
Advertising device. Automatic.....	E. C. Magnus.....	390,383	Oct. 2	263	70	45	56
Advertising device for cars.....	J. Castle.....	375,987	Jan. 3	357	96	42	73
Advertising-frame.....	G. G. Green.....	390,473	Oct. 2	390	100	45	81
Advertising-frame.....	R. N. Searles.....	376,265	Jan. 10	766	203	42	157
Advertising medimms. Holder for.....	P. Delano.....	379,375	Mar. 13	743	201	42	1112
Advertising novelty.....	W. Diebel.....	386,773	July 24	2112	554	44	435
Advertising rack.....	I. H. Randall.....	380,696	Apr. 10	593	163	43	128
Advertising stand.....	M. D. Greengard and F. Harris.....	377,251	Jan. 31	2214	585	42	455
Aerial navigation.....	W. Gustafson.....	378,364	Feb. 21	1533	401	42	810
Aerial navigation. Apparatus for.....	B. Bontems.....	381,106	Apr. 17	1242	{ 333 334 }	43	257
Agate-spinner.....	D. S. Tyler.....	392,240	Nov. 6	91	22	45	611
Agricultural implement.....	L. Whitty.....	378,347	Feb. 21	1513	395	42	806
Agricultural implements. Spring attachment for.....	C. R. Hartman.....	386,982	July 31	2456	645	44	510
Air. Apparatus for carbureting.....	C. M. Fulkerson.....	394,480	Dec. 11	1099	{ 285 286 }	45	1289
Air. Apparatus for exhausting.....	J. W. Packard.....	392,686	Nov. 13	747	199	45	744
Air. Apparatus for moistening and cleaning.....	W. Griesser.....	386,777	July 21	2119	556	44	436
Air. Apparatus for pumping and compressing.....	E. Kaselowsky.....	395,960	Dec. 25	2063	{ 532 533 }	45	1498
Air-brake.....	E. Andrews.....	385,224	June 26	2070	530	43	1516
Air-brake.....	A. R. Bohuss.....	382,749	May 15	1311	344	43	789
Air-brake.....	T. S. E. Dixon.....	382,031	May 1	227	60	43	555
Air-brake.....	T. S. E. Dixon.....	389,643	Sept. 18	1285	{ 338 339 }	44	1329
Air-brake.....	I. Harvey, Sr.....	378,365	Feb. 21	1536	401	42	811

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Air-brake.....	F. Lausberg.....	386,640	July 21	1922	5 8	44	401
Air-brake.....	F. Lausberg.....	392,872	Nov. 13	1923	263	45	501
Air-brake.....	H. S. Park.....	385,198	June 20	2035	521	43	1538
Air-brake.....	H. S. Park.....	393,784	Dec. 4	71	20, 21	45	1086
Air-brake.....	G. B. Williams.....	393,950	Dec. 4	313	85, 86	45	1133
Air-brake attachment.....	G. B. Leahy.....	381,392	Apr. 17	1643	437	43	336
Air-brake. Automatic.....	E. J. Lewis.....	383,819	May 29	2916	770	43	1107
Air-brake. Automatic.....	R. Solano.....	376,970	Jan. 24	1805	475	42	367
Air-brake. Automatic.....	R. Solano.....	378,628	Feb. 28	1916	{ 507 508 }	42	895
Air-brake. Automatic.....	R. Solano.....	382,667	May 8	1200	311	43	749
Air-brake. Automatic.....	R. Solano.....	387,018	July 31	2306	{ 658 659 }	44	519
Air-brake. Automatic electric.....	J. F. Carpenter.....	378,657	Feb. 28	1959	{ 520 521 }	42	903
Air-brake system.....	H. Guels.....	384,687	June 19	1247	333	43	1378
Air-brake valve.....	H. Guels.....	384,686	June 19	1265	332	43	1378
Air. Carbureting.....	R. M. Bidelman.....	377,735	Feb. 14	580	149	42	619
Air-compressing device.....	J. S. Hunter.....	392,611	Nov. 13	646	{ 161 162 }	45	725
Air-compressor.....	G. Chamberlin.....	376,141	Jan. 10	593	158	42	124
Air-compressor.....	C. S. Dean.....	380,195	Mar. 27	1983	531	42	1370
Air-compressor.....	J. B. Erwin.....	382,760	May 15	1324	348	43	782
Air-compressor.....	W. T. Forster.....	375,929	Jan. 3	276	75	42	58
Air-compressor.....	W. T. Forster.....	376,589	Jan. 17	1219	322	42	250
Air-compressor.....	W. T. Forster.....	384,356	June 12	779	203	43	1276
Air-compressor.....	W. A. Pitt.....	385,028	July 10	1017	250	41	207
Air-compressor and regulator therefor.....	A. Nosbaum.....	373,172	Nov. 20	1417	378	45	890
Air-compressor. Automatic.....	G. J. Keenan.....	384,529	June 12	1632	269	43	1325
Air-compressor regulator.....	G. R. Collingworth.....	377,481	Feb. 7	199	47	42	534
Air-compressors. Automatic regulator for the receivers of.....	D. F. McKim.....	375,761	Jan. 3	56	16	42	15
Air-compressors. Valve mechanism for.....	E. Reynolds.....	378,336	Feb. 21	1493	391	42	702
Air-feeder.....	C. A. Klotz.....	390,129	Sept. 25	2020	538	44	1484
Air-feeding device.....	F. Leadbeater.....	386,140	July 17	1188	317	44	248
Air-heater.....	D. Grove.....	384,203	June 5	538	147	43	1225
Air-heating device.....	M. T. Baldwin.....	379,735	Mar. 20	1309	349	42	1230
Air-jet.....	B. F. Sammons.....	379,543	Mar. 13	990	266	42	1160
Air motor. Compressed.....	O. W. Godkin.....	388,964	Sept. 4	231	61, 62	44	1116
Air purifying, cooling, and ventilating device for railway-cars or buildings.....	D. G. Proctor.....	393,924	Dec. 4	280	76	45	1125
Air-ship.....	E. P. Johnston.....	383,889	June 5	59	18, 19	43	1132
Alarm:							
See Boiler-alarm.	Fire and burglar alarm.						
Burglar-alarm.	Flouring-mill alarm.						
Choke-up alarm.	Low-water alarm.						
Electrical alarm.	Railway-alarm.						
Elevator-alarm.	Time, temperature, and burglar alarm.						
Fire-alarm.							
Alarm.....	J. Israel.....	386,132	July 17	1181	315	44	246
Alarm.....	J. P. Stuckert.....	387,265	Aug. 7	95	24	44	590
Alarm.....	H. Warlich.....	394,895	Dec. 18	1805	468	45	1439
Alarm apparatus.....	W. F. Löffelhardt.....	376,989	Jan. 24	1831	422	42	372
Alarm-bolt.....	E. Harmon.....	384,761	June 19	1374	360	43	1399
Alarm-bolt for doors.....	E. Harmon.....	384,760	June 19	1373	{ 359 360 }	43	1399
Alarm for grain-elevators, &c.....	J. R. Beynon.....	394,815	Dec. 18	1664	445	45	1413
Alarm-lock.....	J. Cadbury and J. G. Rollason.....	394,831	Dec. 18	1696	441	45	1119
Alarm-lock.....	G. Gibbs.....	379,642	Mar. 20	1146	303	42	1197
Alarm-lock.....	H. Gilles and D. Stern.....	382,971	May 15	1611	421	43	840
Alarm-lock.....	W. C. Manlyett.....	380,043	Mar. 25	1771	474	42	1223
Album.....	F. Reifschneider.....	386,607	July 24	1576	495	41	391
Album-clasp.....	F. Deck.....	393,889	Dec. 4	233	62	45	1116
Album-clasp.....	T. M. Hass.....	382,302	May 8	636	162	43	610
Album. Photograph.....	H. Boussemacre.....	385,838	July 10	757	198	44	151
Album. Picture.....	H. Boussemacre.....	391,938	Oct. 30	2474	669	45	516
Album. Picture.....	C. Hood.....	386,884	July 31	2310	608	44	480
Album with separable leaves. Photographic.....	H. A. M. Dittmar.....	387,629	Aug. 11	661	{ 171 172 }	44	706
Alcohol. Apparatus for purifying.....	T. G. Bowick.....	393,057	Nov. 20	1296	336	45	860
Alcohol. Purifying.....	T. G. Bowick.....	391,015	Oct. 16	1178	312	45	242
Alas and similar liquids. Device for cooling.....	W. B. Hawkins.....	387,785	Aug. 14	882	228	44	748
Alloy.....	J. Huyck.....	390,972	Oct. 9	1097	.....	45	220
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,945	July 10	915	.....	44	187
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,946	July 10	916	.....	44	187
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,947	July 10	916	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,948	July 10	916	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,949	July 10	917	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,950	July 10	917	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,951	July 10	918	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,952	July 10	918	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,953	July 10	918	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,954	July 10	919	.....	44	188
Alloy.....	D. O'Hara, D. W. Eldredge, and J. Logan.....	385,955	July 10	919	.....	44	188



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Alloy	H. Ostermann and A. Prip.	382,826	May 15	1413		43	801
Alloy	H. Ostermann and A. Prip.	382,827	May 15	1413		43	801
Alloy	C. A. Pallard.	384,709	June 19	1307		43	13-6
Alloy	C. W. Ward.	384,731	June 19	1333		43	1370
Alloy. Metallic	H. Ostermann and C. Lacroix.	381,719	Apr. 24	2133		43	451
Alloy. Metallic	H. Ostermann and C. Lacroix.	388,145	Aug. 21	1487		41	771
Alloy. Metallic	H. Ostermann and C. Lacroix.	388,146	Aug. 21	1488		44	871
Alloy. Metallic	H. Ostermann and C. Lacroix.	388,147	Aug. 21	1488		44	872
Alloy. Metallic	H. Ostermann and A. Prip.	381,718	Apr. 24	2132		43	451
Alloy. Metallic	J. Webster.	377,918	Feb. 14	872		42	677
Alloy. Non-magnetic	A. H. Robert.	388,152	Aug. 21	1493		41	873
Alloy of copper, nickel, and gold	D. H. Church.	385,909	July 10	870		41	158
Alloy of copper, nickel, and lead	G. F. Pottle.	390,251	Oct. 2	80		45	19
Alloys. Making aluminum	W. A. Baldwin.	394,091	Dec. 4	520		45	1171
Alloys. Obtaining manganese	O. M. Thowless.	389,910	Sept. 25	1698		44	1419
Alto-relievo ornamentation. Roller for producing	J. H. Thaison.	380,833	Apr. 10	792	216	43	165
Alumina from clay. Obtaining	F. J. Seymour.	382,197	May 1	467		43	599
Alumina from clay. Obtaining	F. J. Seymour.	382,273	May 1	578	146	43	629
Alumina. Obtaining	K. J. Bayer.	382,505	May 8	951	241	43	700
Aluminium-bronze and other alloys. Preparing	P. Héroult.	387,876	Aug. 14	1014	264	41	774
Aluminium chloride. Obtaining	C. A. Favre.	385,345	July 3	11		44	4
Aluminium fluoride. Manufacture of	L. Grabau.	386,704	July 24	2013		44	417
Aluminum and alloying it with other metals. Bath for extracting	W. A. Baldwin.	380,161	Mar. 27	1935		42	1361
Aluminum. Furnace for reducing	F. J. Seymour.	382,196	May 1	464	120	43	599
Aluminum. Producing	J. S. Howard and F. M. Hill.	378,136	Feb. 21	1193		42	746
Amalgamating apparatus	W. A. Koneman.	394,493	Dec. 11	1114	290	45	1293
Amalgamating apparatus	A. D. Sr., and D. C. Seales, and A. D. Seales, Jr.	389,858	Sept. 18	1617	427	41	1395
Amalgamating gold and silver	W. W. Wheeler.	378,750	Feb. 28	2087		42	926
Amalgamator	H. Cook.	375,733	Jan. 3	17	4	42	6
Amalgamator	A. H. Eysaman.	387,347	Aug. 7	220	58	41	614
Amalgamator	W. and G. W. Johnson.	377,760	Feb. 14	618	160	42	626
Amalgamator	N. L. Raber.	377,272	Jan. 31	2242	592	42	460
Amalgamator	J. Weirich.	377,590	Feb. 7	352	91	42	563
Amalgamator	J. Wilkins.	378,348	Feb. 21	1514	395	42	807
Amalgamator. Carbon	W. H. Lawrence.	377,901	Feb. 14	849	217	42	671
Amalgamator. Centrifugal.	J. B. Brewster.	393,095	Nov. 20	1345	351	45	869
Amalgamator. Plate.	A. Gauthier.	392,860	Nov. 13	1012	259	45	798
Ammonia and bone-black. Obtaining	F. Egner.	381,832	Apr. 21	2299	598	43	481
Ammonia and chlorine from ammonium chloride. Obtaining	L. Mond.	379,488	Mar. 13	912	215	42	1145
Ammonia and hydrochloric acid. Obtaining	L. Mond.	379,487	Mar. 13	910	245	42	1145
Ammonia-gas generator.	M. Poschinger.	376,905	Jan. 24	1721	452	42	351
Ammonium chloride. Separating	G. Järnau.	386,137	July 17	1185		44	248
Ammonium sulphate. Apparatus for making	W. Simpkin.	376,351	Jan. 10	883	231	42	178
Ammunition-boxes. Composite transom for	H. P. Elwell.	386,696	July 24	1999	528	41	415
Ammunition-case	E. C. Fremaux.	377,150	Jan. 31	2065	542	42	426
Anatomical apparatus.	E. Smith.	388,593	Aug. 28	2138	574	44	1005
Anchor	E. T. Starr.	377,691	Feb. 7	513	131	42	592
Anchor	E. T. Starr.	377,692	Feb. 7	515	132	42	592
Anchor and oiler. Floating	M. McCarthy.	378,171	Feb. 21	1243	327	42	755
Anchors. Machine for making building	J. Russell.	385,140	June 26	1953	560	43	1522
Angle-clamp for the corners of tables, desks, &c.	D. J. Brougher.	383,167	May 22	1027	504	43	911
Angles. Instrument for dividing	A. S. Yáñez.	381,049	Apr. 10	1135	303	43	229
Animal-bitching device	J. Coyle.	379,103	Mar. 6	355	101	42	1032
Animal or other power	J. Bechtold.	384,603	June 19	1143	502	43	1154
Animal-releasing device	B. Borton.	379,852	Mar. 20	1478	390	42	1262
Animal-releasing device	W. N. Howdon.	385,671	July 3	503	129	44	97
Animal-releasing device	J. D. and C. A. Sullivan.	385,077	June 26	1866	476	43	1503
Animal-releasing device	G. A. Waterhouse.	389,269	Sept. 11	719	193	44	1216
Animal-suspending device	E. A. Stiles.	379,251	Mar. 13	562	156	42	1078
Animal-trap	H. Barry.	380,643	Apr. 3	500	140	43	102
Animal-trap	P. T. Beach.	381,415	June 12	863	225	43	1293
Animal-trap	J. T. Beldin.	385,085	June 26	1876	479	43	1506
Animal-trap	L. Beversdorf, Jr.	385,788	July 10	681	178	44	141
Animal-trap	J. Brusie.	383,700	May 29	2714	717	43	1070
Animal-trap	W. H. Castle.	391,118	Oct. 16	1321	352	45	269
Animal-trap	T. R. Cattell and A. H. Summers.	378,767	Feb. 28	2111	557	42	930
Animal-trap	J. Cissell.	392,185	Nov. 6	15	4	45	597
Animal-trap	A. M. Cleaver.	376,142	Jan. 10	595	158	42	125
Animal-trap	T. W. Conner.	386,299	July 17	1429	377	44	292
Animal-trap	W. Devold and W. C. Devold.	384,827	June 19	1479	326	43	1419
Animal-trap	W. H. Harden.	388,196	Aug. 21	1554	413	44	884
Animal-trap	W. D. Heltsley.	386,009	July 10	992	264	44	203
Animal-trap	D. Henderson.	392,674	Nov. 13	731	186	45	740
Animal-trap	E. Herrington.	378,789	Feb. 28	2140	566	42	936
Animal-trap	W. C. Hooker.	390,021	Sept. 25	1850	490	44	1419
Animal-trap	O. Huffman.	380,439	Apr. 3	195	54	43	40
Animal-trap	O. Huffman.	395,054	Dec. 25	2055	530	45	1497
Animal-trap	B. P. Jolly.	375,822	Jan. 3	131	38	42	30
Animal-trap	A. E. Kunderd.	376,246	Jan. 10	739	196	42	151
Animal-trap	G. J. McMillan.	385,421	July 3	133	35	44	28
Animal-trap	C. H. Mittler.	383,972	June 5	195	56	43	1158
Animal-trap	J. T. Moxley.	379,713	Mar. 20	1252	334	42	1219
Animal-trap	L. W. Page and S. Hardeman.	378,972	Mar. 6	154	44	42	996
Animal-trap	R. Vollschwitz.	393,087	Nov. 20	1333	348	45	867
Animal-trap	C. Walker and W. Allsopp.	379,087	Mar. 6	331	95	42	1028
Animal-trap	C. Warner.	377,589	Feb. 7	351	91	42	563
Animal-trap. Live-bait.	E. Herrington.	378,790	Feb. 28	2141	566	42	936
Animal-traps. Jaw-spring for	S. W. Baldwin.	393,809	Dec. 4	105	30	45	1093
Animals. Device for grooming	S. E. Bander.	377,420	Feb. 7	115	24	42	516

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Tr.	Vol.	Page.
Animals. Device for suspending and spreading slaughtered	E. Ekker	384,433	June 12	885	230	43	1298
Animals from jumping fences. Device for preventing	J. H. Booth and S. W. Beard	376,065	Jan. 10	476	128	42	102
Animals. Machine for grooming	N. Petersen	380,924	Apr. 10	937	249	43	192
Animals. Preparing food for	J. R. Barret	394,431	Dec. 11	1033	271	45	1277
Annealing metals. Oven for	M. D. Greenwood	376,740	Jan. 24	1467	387	42	304
Annunciator	W. C. Clark	394,555	Dec. 18	1224	319	45	1327
Annunciator	F. E. Fisher	383,566	May 29	2531	668	43	1029
Annunciator	R. P. Garsed	389,378	Sept. 11	876	226	44	1247
Annunciator	F. Ritchie	392,970	Nov. 13	1165	302	45	821
Annunciator	A. Rosenberg	395,251	Dec. 25	2378	609	45	1554
Annunciator	J. P. Tirrell	376,171	Jan. 10	638	170	42	133
Annunciator and signaling apparatus	M. Martin	381,709	Apr. 24	2115	553	43	447
Annunciator. Clearing-out	C. E. Scribner	383,015	May 15	1694	440	43	856
Annunciator. Electric	B. N. Botts	379,758	Mar. 20	1313	350	42	1231
Annunciator. Electric	C. H. Crockett and C. C. Allen	388,637	Sept. 4	42	12	44	1080
Annunciator. Electric	J. Geary	381,772	Apr. 24	2196	574	43	463
Annunciator. Electric	J. W. Hoffman	377,256	Jan. 31	2219	586	42	455
Annunciator. Electric	C. E. Scribner	384,088	June 5	361	102	43	1190
Annunciator. Electric	C. S. Young and G. E. Painter	380,010	Mar. 27	1725	462	42	1319
Annunciator. Electrical	H. S. Downerd	384,430	June 12	881	229	43	1297
Annunciator. Electrical	M. M. Wood	385,894	July 10	846	224	44	173
Annunciator. Electrical needle	W. E. Gill and R. Segerdahl	383,725	May 29	2757	726	43	1073
Annunciator. Magnetic	W. Humans	388,876	Sept. 4	107	28	44	1023
Annunciator. Pneumatic	R. P. Garsed	384,144	June 5	448	124	43	1207
Annunciator. Pneumatic	W. R. Ostlander	382,051	May 1	265	69	43	502
Annunciator-target. Electric	F. J. Patteu and T. A. Bingham	394,081	Dec. 4	501	135	45	1163
Ant-trap	M. Kell	379,581	Mar. 20	1060	282	42	1181
Ant-trap	M. C. Miller	378,709	Feb. 28	2036	537	42	916
Anti-friction compound	J. B. Deeds	395,216	Dec. 25	2335		45	1545
Anti-friction compound	T. J. Mayall	384,920	June 19	1611		43	1444
Anti-friction roller for drawers	J. Barns	383,689	May 29	2695	712	43	1066
Anti-rattler and shaft-support. Combined.	A. Delamater	377,605	Feb. 7	383	97	42	568
Anti-siphoning trap	F. H. Paradise	387,252	Aug. 7	81	19	44	587
Antidote	J. T. Smith	379,183	Mar. 6	450		42	1052
Anvil	J. O'Brien	386,755	July 24	2083	548	44	429
Anvil and vise attachment	J. P. Holt	394,857	Dec. 18	1744	452	45	1428
Anvil and vise. Combined	W. E. Canedy	380,019	Mar. 27	1740	466	42	1322
Apron and support therefor	C. L. Jacoby	392,676	Nov. 13	735	186	45	742
Aquascope	P. Wright	378,136	Feb. 21	1170	305	42	743
Arc light	L. N. P. Poland	378,616	Feb. 28	1899	502	42	891
Arc light	D. B. Turner	393,405	Nov. 27	1793	473	45	967
Arch and brick for building the same. Flat.	J. C. Anderson	394,048	Dec. 4	453	123	45	1159
Architectural purposes. Composition of matter for	C. Straub	395,091	Dec. 25	2106		45	1507
Arm or hand rest	W. M. Kinnard	384,261	June 12	631	170	43	1251
Armature-coils. Frame for winding	R. Eickenmeyer	377,997	Feb. 14	988	258	42	700
Armature-core for dynamo-electric machinery	W. S. Belding	394,905	Dec. 18	1828	473	45	1442
Armature-core for dynamos	W. S. Hill	390,301	Oct. 2	138	39	45	31
Armature. Dynamo	F. E. Fisher	383,565	May 29	2530	667	43	1029
Armature. Dynamo	F. E. Fisher	383,567	May 29	2532	668	43	1029
Armature. Dynamo	J. F. Kelly	381,700	Apr. 24	2099	549	43	444
Armature. Dynamo	W. G. Meyers and F. E. Coward	389,894	Sept. 25	1677	443	44	1414
Armature. Dynamo	M. A. Müller	381,636	Apr. 24	2009	527	43	426
Armature. Dynamo	A. Schmidt and H. M. Bylesby	383,659	May 29	2655	703	43	1057
Armature. Dynamo	O. B. Shallenberger	383,663	May 29	2662	706	43	1059
Armature for dynamo-electric machinery	W. S. Belding	395,260	Dec. 25	2392	612	45	1557
Armature for dynamo-electric machines	L. Daft	393,745	Dec. 4	16	6	45	1075
Armature for dynamos and motors	H. M. Bylesby	383,617	May 29	2599	687	43	1045
Armature for dynamos and motors	H. M. Bylesby	383,619	May 29	2600	687	43	1046
Armature for electric machines	O. B. Shallenberger	383,664	May 29	2663	706	43	1059
Armature for electric motors	F. E. Fisher	383,564	May 29	2529	667	43	1029
Armature-winding for dynamo-electric machines	W. H. Knight	389,658	Sept. 18	1318	345	44	1335
Armatures of dynamos. Core for the	D. J. Hauss	394,978	Dec. 25	1952	503	45	1475
Armatures of dynamos. Mounting	G. Westinghouse, Jr.	383,679	May 29	2663	709	43	1063
Armor-plates. Apparatus for the manufacture of	A. Wilson	381,453	Apr. 17	1741	465	43	355
Armor-plates, &c. Hardening and tempering	A. Eyraud	387,712	Aug. 14	786	202	44	729
Arrow for passing cord through pipe-lines	J. Geyser	382,257	May 1	560	141	43	616
Artist's mechanical sketching apparatus	J. Pulsifer	386,931	July 31	2384	627	44	494
Asbestos-faced felt	J. L. Reed	387,368	Aug. 7	200	65	44	622
Asbestos. Preparing	C. A. Faure	389,210	Sept. 11	624		44	1197
Ash-conductor	J. H. Whittle	377,921	Feb. 14	878	225	42	678
Asphalt pavements. Manufacture of	C. A. Case	393,616	Nov. 27	2124	555	45	1033
Asphaltum compound and making the same	M. S. Higbie and A. W. Dougherty	387,357	Aug. 7	223		44	617
Astronomical apparatus	E. L. Rugg	384,285	June 12	664	178	43	1257
Atomizer	H. Campbell	377,371	Feb. 7	6	2	42	496
Atomizer	A. De Villiers	378,357	Feb. 21	1525	399	42	809
Atomizer	C. Ganthier	386,121	July 17	1162	309	44	242
Atomizer	G. Kneuper	380,041	Mar. 27	1769	473	42	1327
Atomizer	G. Kneuper	394,775	Dec. 18	1604	421	45	1402
Atomizer	J. J. Ochs	384,777	June 19	1398	365	43	1404
Atomizer	A. D. Schlessinger	387,370	Aug. 7	263	67	44	622
Atomizer	A. M. Shurtleff	379,611	Mar. 20	1102	293	42	1188
Atomizer	H. Smith	394,888	Dec. 18	1790	464	45	1436
Atomizer and inhaler. Combined	A. J. and G. H. Palmer	386,025	July 10	1012	269	44	207
Auger	H. Brvlick	390,749	Oct. 9	770	204	45	159
Auger	H. W. Richards	387,448	Aug. 7	373	97	44	646

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Anger-bits. Die for making	C. H. Irwin	378,251	Feb. 21	1367	359	42	778
Anger-bits. Die for making	F. Thomas and C. H. Irwin	378,408	Feb. 21	1590	420	42	824
Anger. Earth	P. Gampher	386,397	July 17	1556	413	44	317
Anger. Earth	T. Tow	379,345	Mar. 13	696	189	42	1103
Anger-handle	H. Naylor	385,475	July 3	209	55	41	42
Anger. Post-hole	P. P. Stanley	386,901	July 31	2338	614	44	485
Anger. Spoke	S. B. Shaffer	380,701	Apr. 10	597	164	43	128
Anger. Square-hole	R. Hughes, A. E. and J. C. Lake	377,199	Jan. 31	2129	561 562	42	440
Angers and bits. Machine for cutting floor-lips and spurs on	J. Swan	387,188	July 31	2763	723	44	563
Angers. Die for making	A. Laundry	382,710	May 15	1260	330	43	769
Angers. Twisting	M. Harbsoeg	392,119	Oct. 30	2759		45	572
Automatic gate	J. E. Goodhue	375,993	Jan. 3	365	98	42	75
Automatic lubricator	T. Nopper	385,369	July 3	44	14	44	11
Automatic sprinkler	C. W. Kerstefer	383,800	June 5	63	19	43	1132
Automatic switch	M. Leary	392,658	Nov. 13	737	187	45	742
Automatic switch	R. E. Nolley	391,064	Oct. 16	1245	332	45	256
Automatically-closing can	G. A. Poole	387,959	Aug. 14	1160	214	44	803
Automatically-closing can	G. A. Poole	387,960	Aug. 14	1161	314	44	803
Awning	H. B. and F. N. Coyle	394,341	Dec. 11	907	239	45	1255
Awning	D. Jannopoulos	389,749	Sept. 18	1448	379	44	1362
Awning	H. B. Knoblanck	394,120	Dec. 4	559	150	45	1178
Awning for car-platforms	J. H. Conn	375,732	Jan. 3	15	4	42	6
Awning. Vehicle	A. D. Beedle	379,356	Mar. 13	710	193	42	1106
Awning-ventilator	J. P. Knobloch	380,307	Mar. 27	1999	555	42	1373
Axial rolling	H. H. Forsyth	379,386	Mar. 13	756	205	42	1115
Axle. Anti-friction	M. Ryan	378,978	Mar. 6	160	46, 47	42	998
Axle-bearing	D. E. Hull	387,719	Aug. 14	798	205	44	731
Axle-box	H. G. Bird	392,845	Nov. 13	993	255	45	793
Axle-box	L. D. Clark	386,525	July 24	1770	468	44	370
Axle-box	J. Des Brisay	389,691	Sept. 18	1366	358	44	1314
Axle-box	T. F. N. Finch	393,328	Nov. 20	1683	444	45	937
Axle box. Car	F. D. Adams	377,418	Feb. 7	113	23	42	516
Axle box. Car	D. Allen	388,238	Aug. 21	1607	430	44	896
Axle box. Car	D. H. Dugar	379,767	Mar. 20	1328	351	42	1234
Axle box. Car	W. O. Dunbar	392,593	Nov. 13	615	154	45	719
Axle box. Car	G. F. Godley	391,466	Oct. 23	1806	483 484	45	370
Axle box. Car	J. M. Hollowes	383,728	May 29	2760	727	43	1078
Axle box. Car	E. Lewis and F. Armstrong	379,651	Mar. 20	1157	366	42	1199
Axle box. Car	D. Macnee	379,873	Mar. 20	1519	400	42	1270
Axle box. Car	W. S. Sharpneck	386,839	July 31	2335	613	44	485
Axle box. Car	J. Stephenson	378,477	Feb. 24	1706	449	42	852
Axle box. Car	K. Zallud	380,379	Apr. 3	113	33	43	24
Axle-box for carriages	M. Guet	389,963	Sept. 25	1767	468	44	1433
Axle-box lid	W. H. Lawrence	394,378	Dec. 11	963	253	45	1266
Axle-box lid. Car	G. W. Morris	379,712	Mar. 20	1251	334	42	1219
Axle-box lid. Car	G. W. Morris and W. H. Lawrence	390,981	Oct. 9	1110	293	45	222
Axle-box lids. Die for making car	G. W. Morris	385,194	June 26	2031	520	43	1537
Axle-box-milling machine	A. Paterson	383,540	May 29	2500	660	43	1023
Axle-boxes. Dust-guard for	J. W. Hyatt	388,136	Aug. 21	1458	391	41	867
Axle boxes. Dust-guard for car	P. M. Kling	384,530	June 12	1031	270	43	1325
Axle boxes. Dust-guard for car	J. Stier	390,991	Oct. 9	1124	297	45	225
Axle boxes. Dust-guard for car	P. Sweeney	379,524	Mar. 13	965	260	42	1155
Axle. Car	J. H. Eaton	379,638	Mar. 20	1141	302	42	1196
Axle. Car	S. Gissinger	386,460	July 24	1672	441	44	353
Axle. Car	W. F. Lutz, Jr.	383,820	May 29	2919	770	43	1107
Axle. Car	A. M. Wright	387,197	July 31	2776	726	44	565
Axle-clip	L. S. White	379,839	Mar. 20	1456	385	42	1258
Axle-collar press	A. Paterson	385,371	July 3	47	14, 15	44	12
Axle. Divided car	R. K. Skinner	391,203	Oct. 16	1437	385	45	293
Axle-ends. Machine for turning	A. Paterson	382,725	May 15	1378	345	43	773
Axle for thrashing-machines	F. W. Robinson	382,009	May 1	188	49	43	548
Axle for vehicles	J. E. Prescott	383,066	May 15	1777	459	43	872
Axle-lubricator	M. W. Brown	391,942	Oct. 30	2479	670	45	518
Axle-lubricator	W. Cole, Jr.	382,458	May 8	878	224	43	685
Axle-lubricator	W. Cole, Jr.	392,906	Nov. 13	1071	277	45	809
Axle-lubricator	S. H. Cottrell	389,500	Sept. 11	1056	281	44	1288
Axle-lubricator	J. H. Hewey	388,359	Aug. 21	1811	482	44	935
Axle-lubricator	W. C. Joslin	389,929	Sept. 25	1727	457	44	1424
Axle-lubricator. Car	W. H. and F. C. Burden	394,096	Dec. 4	527	141	45	1172
Axle-lubricator. Car	B. E. Dupont	389,368	Sept. 11	864	223	44	1245
Axle-lubricator. Car	R. Faas	389,372	Sept. 11	869	224	44	1246
Axle-lubricator. Car	R. Faas	389,373	Sept. 11	870	224	44	1246
Axle-lubricator. Car	G. F. Godley	381,691	Apr. 24	2085	546	43	442
Axle-lubricator. Car	S. Hatt	377,754	Feb. 14	609	157	42	624
Axle-lubricator. Car	F. C. Hockensmith	394,362	Dec. 11	939	247	45	1261
Axle-lubricator. Car	E. Pynchon	377,271	Jan. 31	2240	592	42	450
Axle-lubricator. Car	J. J. Stever	385,213	June 26	2057	528	43	1543
Axle-lubricator. Car	S. Vessot	382,246	May 1	537	137	43	612
Axle-lubricator. Car	A. W. Wright	392,142	Oct. 30	2794	758	45	579
Axle-nuts. Capping	E. Firth, A. and I. Tompkins	379,214	Mar. 13	515	145	42	1069
Axle-oiler. Car	E. Housel	380,436	Apr. 3	190	52	43	39
Axle-plate for wheeled scrapers, agricultural machines, and similar purposes. Pole-attaching	G. W. Taft	382,015	May 1	196	50	43	550
Axle. Railway-car	S. Gissinger	391,703	Oct. 23	2136	574	45	437
Axle-setting machine	J. F. Hennessy	375,937	Jan. 3	287	77	42	59
Axle-skein	J. Fulton and W. A. Viele	390,121	Sept. 25	2011	536	44	1482
Axle-skeins. Machine for making	S. B. Parsons	383,761	May 29	2814	741 742	43	1088
Axle-skeins. Manufacture of	E. Firth and A. and I. Tompkins	381,355	Apr. 17	1591	426	43	326
Axle spindle and bearing	C. V. Moore	388,214	Aug. 21	1577	420	44	889

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Axle truss. Wagon.....	O. J. Williams.....	378,535	Feb. 28	1784	471	42	868
Axle. Vehicle.....	J. F. Dixon.....	381,829	Apr. 24	2297	597	43	481
Axle. Vehicle.....	E. Firth.....	385,798	July 10	693	180	44	143
Axle. Vehicle.....	S. J. Kurtz.....	390,482	Oct. 2	400	102	45	12
Axle. Vehicle.....	A. Paterson.....	380,344	Apr. 3	52	18	43	13
Axle. Vehicle.....	E. Peckham and E. Laass.....	378,058	Feb. 14	1067	280	42	715
Axle. Vehicle.....	B. F. Richardson.....	382,902	May 15	1516	397	43	822
Axle. Vehicle.....	L. T. Weaver.....	387,028	July 31	2518	662	44	521
Axle. Vehicle.....	W. H. Wright.....	391,219	Oct. 16	1460	390	45	267
Axle. Wagon.....	N. W. Blevens.....	382,211	May 1	486	125	43	603
Axle. Wagon.....	N. L. Holmes.....	380,892	Apr. 10	892	239	43	1-3
Axle. Wagon.....	C. Hotz and M. Conrad.....	388,975	Sept. 4	251	67	44	1120
Axle-washer.....	N. Harris.....	382,259	May 1	562	142	43	617
Axle-washer. Automatic.....	C. M. Hubbard.....	387,883	Aug. 14	1026	270	44	776
Axles and shafts. Roller-bearing for.....	C. D. Meneely.....	389,819	Sept. 18	1540	408	44	1281
Axles. Dust-guard for car.....	W. S. Soule.....	381,591	Apr. 24	1947	513	43	414
Axles for vehicles. Manufacture of.....	J. G. Harrison.....	384,521	June 12	1022	266	43	1323
Axles. Machine for bending wagon.....	W. Schwingen.....	391,649	Oct. 23	2048	554	45	422
Axles. Manufacture of thimble-skins for.....	J. F. Davidson.....	381,818	Apr. 17	1336	370	43	286
Axles of sheet metal. Making.....	T. C. Manz.....	383,188	May 22	1954	513	43	916
Axles. Repairing vehicle.....	J. F. Morrell.....	376,900	Jan. 24	1716	450	42	350
Axles. Roller journal for car.....	H. L. Moyer and G. W. Youlls.....	377,836	Feb. 14	761	194	42	634
Axles. Sand-band and clip for vehicle.....	N. S. Ketchum.....	387,646	Aug. 14	686	177	44	711
Axles. Sand-band for vehicle.....	J. H. Sharp.....	380,528	Apr. 3	334	96	43	68
Axles. Toughening.....	J. Coffin.....	391,120	Oct. 16	1324	353	45	270
Axles. Wheel-fastening device for car.....	A. J. Spicer.....	387,459	Aug. 7	385	160	44	649
Baby-jumper.....	M. P. Jones.....	382,814	May 15	1398	367	43	797
Baby-jumper.....	B. G. Lathrop.....	382,884	May 15	1493	391	43	818
Back-band.....	A. J. Helm.....	376,091	Jan. 10	514	137	42	110
Back-band.....	H. C. Johnson.....	382,365	May 8	736	186	43	658
Back-band hook.....	E. G. Bennett.....	387,249	Aug. 14	974	254	44	767
Back-band hook.....	A. J. Dennis.....	387,583	Aug. 7	594	155	44	686
Back-band hook.....	S. Ward.....	381,282	June 19	1565	407	43	1434
Back-band loop.....	E. R. Cahoon.....	384,423	June 12	873	227	43	1295
Back-band loop and terret. Combined.....	J. McFadden.....	392,058	Oct. 30	2652	721	45	550
Badge.....	H. R. Hansen.....	390,593	Oct. 2	552	146	45	111
Badge. Designation.....	R. H. Lee.....	382,367	May 8	737	187	43	659
Badge-holder.....	G. B. Franks.....	388,405	Aug. 28	1878	501	44	953
Bag:							
See Feed-bag.....	Moth-proof paper bag.....						
Hand-bag.....	Paper bag.....						
Mail-bag.....	Saddle-bag.....						
Moth-proof bag.....	Traveling-bag.....						
Bag.....	J. S. Boyd.....	380,016	Mar. 27	1737	465	42	1321
Bag-catch.....	H. Kadow.....	394,861	Dec. 18	1752	454	45	1429
Bag-fastener.....	O. Anderson.....	375,976	Jan. 3	343	92	42	70
Bag-fastener.....	H. W. Constock.....	384,130	June 5	425	118	43	1203
Bag-fastener.....	G. Leder.....	392,958	Nov. 13	1145	298	45	823
Bag-fastener.....	H. A. Martens.....	381,265	Apr. 17	1462	393	43	300
Bag-handle. Sheet-metal.....	R. C. Jenkinson.....	381,790	Apr. 24	2223	582	43	468
Bag-holder.....	J. E. Coles.....	389,738	Sept. 18	1435	375	44	1359
Bag-holder.....	F. G. Fischer.....	380,794	Apr. 10	743	204	43	156
Bag-holder.....	W. P. Lewis.....	381,454	June 12	914	238	43	1503
Bag-holder.....	A. M. Roscoe and G. E. Grier.....	379,817	Mar. 20	1417	377	42	1251
Bag-holder.....	J. Siddle.....	394,942	Dec. 18	1884	487	45	1453
Bag-holder.....	A. D. Wallace.....	393,407	Nov. 27	1797	475	45	968
Bag-holder.....	I. H. Weaver.....	381,104	June 5	381	107	43	1194
Bag-holder and fastener.....	A. G. Blincoe.....	390,643	Oct. 9	621	166	45	132
Bag-lock.....	T. W. Harrison.....	384,688	June 19	1271	333	43	1479
Bag-machine.....	D. Appel.....	387,573	Aug. 7	578	151	44	683
Bag-machine.....	L. D. Benner.....	391,936	Oct. 30	2469	668	45	515
Bag or satchel frame.....	W. Roemer.....	378,263	Feb. 21	1388	363	42	782
Bag or satchel frame.....	W. Roemer.....	386,789	July 24	2138	561	44	440
Bag or satchel frame lock.....	A. Geertz.....	379,158	Mar. 6	423	119	42	1046
Bag turning, folding, and printing machine.....	J. W. Wells.....	377,972	Feb. 14	953	249	42	694
Bags and satchels. Fastening for hand.....	G. Crouch.....	385,243	June 26	2103	539	44	1553
Bags. Frame for traveling.....	W. Roemer.....	378,620	Feb. 28	1906	504	42	893
Bags. Frame for traveling.....	F. C. Schmidt.....	378,623	Feb. 28	1910	506	42	893
Bags. Mouth-piece for.....	P. O. Soper.....	392,236	Nov. 6	86	21	45	611
Bags or valises. Fastening for traveling.....	H. W. Morrow.....	378,016	Feb. 14	1015	265	42	705
Bags. Shoe for traveling.....	C. Reinisch.....	380,768	Apr. 10	702	194	43	149
Bagasse drier and furnace.....	A. G. De Aguiar.....	380,999	Apr. 19	1058	279	43	211
Bagasse-furnace.....	F. Cook.....	380,992	Apr. 10	1052	277	43	213
Bagasse-furnace.....	W. W. Sutcliffe.....	389,774	Sept. 18	1478	388	44	1208
Bail-car.....	T. F. Reilly.....	387,182	July 31	2555	721	41	562
Bailer.....	G. W. Rose.....	393,485	Nov. 27	1925	503	45	991
Bait-spoon.....	H. Lofie.....	390,028	Sept. 25	1859	493	44	1451
Bake-pan.....	B. H. Bicknell.....	389,357	Sept. 11	845	216	44	1242
Baking-pan.....	E. F. Greeno and F. H. Hendryx.....	383,177	May 22	1941	509	43	914
Balance-spring for window or other slides.....	G. W. Bishop.....	377,736	Feb. 14	581	150	42	620
Bale cover. Cotton.....	A. J. McGhee.....	390,499	Oct. 2	429	111	45	88
Bale cover. Cotton.....	A. S. Ramlett.....	390,519	Oct. 2	454	118	45	92
Bale-tie.....	J. R. Davis.....	378,874	Mar. 6	27	7	42	972
Bale-tie.....	L. C. Ryan.....	379,878	Mar. 20	1528	403	42	1272
Bale-tie.....	G. A. Weld.....	377,092	Jan. 31	1991	521	42	411

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Bale-tie	T. T. Wells	382,396	May 8	781	198	41	667
Bale-tie machine	P. A. Warren	392,245	Nov. 6	97	25, 26	45	613
Bale-tie. Wire	W. Hewitt	381,071	Apr. 10	1172	312	43	2, 6
Bales. Machine for putting ties on	W. E. Dunbar	382,222	May 1	501	130	41	606
Baling-clamp	A. Kiger	391,622	Oct. 21	2013	544	45	414
Baling-crib	C. B. Mitchell	386,649	July 24	1937	512	41	403
Baling-press	C. L. and J. P. Ames	392,657	Nov. 13	708	178	45	746
Baling-press	R. W. Archer	389,472	Apr. 3	243	66, 67	43	49
Baling-press	J. N. Bartle	383,023	May 15	1719	448	43	861
Baling-press	H. F. Blank and H. W. Schwarzburg	387,486	Aug. 7	421	110 111	41	655
Baling-press	P. I. Crews	392,785	Nov. 13	969	232 233	45	775
Baling-press	P. K. Dederick	382,144	May 1	392	102	43	5, 5
Baling-press	P. K. Dederick	382,954	May 15	1589	415	43	8, 6
Baling-press	G. Ertel	386,063	July 10	1066	285	41	218
Baling-press	F. Frey	387,508	Aug. 7	460	121	44	663
Baling-press	F. Frey and H. W. Schwarzburg	378,831	Feb. 28	2226	592 593	42	953
Baling-press	A. Freytag	394,261	Dec. 11	782	207	45	1221
Baling-press	J. H. Gardner	393,697	Nov. 27	2242	588	45	1057
Baling-press	J. Garman	379,156	Mar. 6	492	119	42	1046
Baling-press	J. D. Haughton and W. J. Alexander	379,645	Mar. 20	1151	304	42	1198
Baling-press	F. W. J. Hoop and J. Isaac	387,516	Aug. 7	470	124	44	664
Baling-press	A. Jarrard	385,355	July 3	53	7, 8	44	7
Baling-press	G. Johnson	376,527	Jan. 17	1438	298	42	234
Baling-press	O. B. Kinnard	377,942	Feb. 14	913	245	42	6, 6
Baling-press	W. A. Laidlaw	382,167	May 1	454	111	43	591
Baling-press	W. J. F. Liddell	384,363	Apr. 17	1457	392	43	279
Baling-press	W. P. Martyn	393,116	Nov. 20	1371	358	45	875
Baling-press	A. Matijetz	380,810	Apr. 10	760	208 209	43	159
Baling-press	G. W. L. Meyer and F. J. Sutphen	384,993	June 26	1775	415	43	1173
Baling-press	C. Peterson	388,579	Aug. 28	2117	568	41	1000
Baling-press	J. Price	394,662	Dec. 18	1169	367 368	45	1271
Baling-press	W. S. Reeder	379,414	Mar. 13	800	215 216	42	1124
Baling-press	H. W. Schwarzburg, H. F. Blank, and J. H. Altheide	387,923	Aug. 14	1099	291	44	791
Baling-press	W. F. and G. W. Shaler	385,207	June 26	9650	524	43	1541
Baling-press	E. C. Sooy	384,294	June 12	677	181	41	121
Baling-press	E. C. Sooy	386,360	July 17	1594	399	44	367
Baling-press	E. C. Sooy	394,623	Dec. 18	1314	354 352	45	1219
Baling-press	A. Swab	392,081	Oct. 30	2683	730	45	557
Baling-press	J. M. Taylor	379,185	Mar. 6	451	127	42	1052
Baling-press	S. W. Trabne	376,688	Jan. 17	1387	365 366	42	279
Baling-press	O. J. Truesdell	393,086	Nov. 20	1332	347	45	867
Baling-press	A. Wickey	392,085	Oct. 30	2687	731	45	557
Baling-press	W. L. Wight	389,349	Sept. 11	833	213	44	1239
Baling-press	B. J. Wilson	376,461	Jan. 17	1045	274	42	215
Baling-press	H. R. Wolfe	381,975	May 1	120	28	43	536
Ball bat. Base	J. W. Moose	377,686	Feb. 7	509	130	42	591
Ball curver. Base	J. E. McKenna and A. M. Baker	385,816	July 10	721	188	44	148
Ball trap and target	E. R. Day and C. H. Colt	389,741	Sept. 18	1440	376	41	1360
Balling cord or yarn. Machine for	S. Brown	389,054	Sept. 4	356	94, 95	44	1140
Balling twine, &c. Machine for	J. Good	390,361	Oct. 2	232	62	45	4
Ballot-box	R. G. Wood	387,572	Aug. 7	575	150	41	683
Ballot-box. Registering and canceling	A. Bigelman	380,978	Apr. 10	1024	268	43	267
Ballot-box. Registering and canceling	T. F. Dodge	391,518	Oct. 23	1875	503	45	3, 5
Ballot-box. Registering and canceling	R. G. Wood	393,953	Dec. 4	319	87	45	1131
Banana-carrier	G. D. Sidway	376,555	Jan. 17	1173	308	42	239
Banana-case	R. H. Aiken	392,706	Nov. 13	778	197	45	751
Band-coupling	C. A. Weed	377,971	Feb. 14	952	249	42	693
Band-cutter	J. Buchanan	382,686	May 15	1232	321	41	764
Band-cutter	J. L. Horst	381,926	May 1	39	11	43	522
Band-cutter	J. E. Schoolcy	376,166	Jan. 10	630	169	42	132
Band-cutter and feeder	O. Anderson	377,975	Feb. 14	959	250	42	695
Band-cutter and feeder	K. G. Bareis	379,355	Mar. 13	707	192	42	1106
Band-cutter and feeder	E. P. Killinger	386,017	July 10	1002	266 267	44	205
Band-cutter and feeder	W. S. Nichols	390,509	Oct. 2	441	114 115	45	90
Band cutter and feeder. Combined	J. N. Schmeltzer	389,981	Sept. 25	1796	476 477	44	1478
Band. Draw	J. N. Sargent	381,426	Apr. 17	1693	454	43	317
Band. Elastic	R. W. Howard	384,879	Apr. 21	2376	617	43	496
Band-fastening	J. M. Scott	391,340	Oct. 16	1621	430	45	327
Band for boxes. Metal	C. W. Evans	393,001	Nov. 20	1220	317	45	815
Bandage. Hygienic	J. Grossmann	387,159	July 31	2715	712	41	535
Bandage. Suspensory	W. P. Ware	375,846	Jan. 3	160	45	42	36
Bandages. Machine for making plastic	J. R. Rodman	387,183	July 31	2755	721	41	572
Bandaging-machine	G. Walters	391,728	Oct. 23	2153	5, 6	45	442
Banjo	E. J. Cuhley	394,159	Dec. 11	619	166	45	1199
Banjo	J. J. Doyle	394,348	Dec. 11	918	212	45	1257
Banjo	J. F. Linscomb	388,781	Aug. 28	2411	650	44	1075
Banjo	L. Washer and C. E. Dobson, Jr.	392,284	Nov. 6	303	77	45	653
Banjo	W. R. Wood	392,530	Dec. 11	1178	307	45	1302
Bank-register	J. B. Dennis	392,317	Nov. 6	200	52	45	632
Banker's case	M. F. Langfeld	389,579	Sept. 18	1181	310	44	1310



Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr g.	Vol.	Page.
Bar:							
See Boring-bar.	Pinch-bar.						
Claw-bar.	Plow-bar.						
Curtain-bar.	Sickle-bar.						
Cutter-bar.	Splice-bar.						
Cutter-supporting bar.	Structural bar.						
Finger-bar.	Truck-bar.						
Grate-bar.	Type-bar.						
Grate or ash-pan bar.	Vehicle reach-bar.						
Locomotive draw-bar.	Window-bar.						
Bars. Machine for cutting scrolls on ends of.	J. Koen.	378,168	Feb. 21	1238	326	42	754
Barber's chair.	E. Melchior.	380,909	Apr. 10	912	245	43	187
Barber's chair.	F. Melchior.	388,211	Aug. 21	1574	419	44	889
Barber's chair. Adjustable.	E. Berninghaus.	390,059	Sept. 25	1916	505	44	1462
Barbers' chairs. Head-rest for.	C. W. Delaney.	377,147	Jan. 31	2062	541	42	4925
Barber's dressing-case.	C. Brown.	391,506	Oct. 23	1857	498	45	361
Barge. Dumping.	G. N. Kenyon.	394,072	Dec. 4	492	131	45	1166
Bark-stripping machine.	J. Schildhauser.	380,730	Apr. 10	644	178	43	138
Bark. Treating cinchona.	P. Casamajor.	378,231	Feb. 21	1342	42	775	
Bark. Treatment of cinchona.	P. Casamajor.	378,233	Feb. 21	1345	42	775	
Barley-flakes.	F. R. Farwell and F. P. Rhines.	390,849	Oct. 9	911	45	185	
Barley-flakes. Making.	F. R. Farwell and F. P. Rhines.	390,850	Oct. 9	912	240	45	185
Barometer. Aneroid.	H. S. S. Watkin.	394,668	Dec. 18	1422	371	45	1363
Barometers or other instruments. Indicating mechanism for.	I. Joseph.	389,967	Sept. 25	1772	470	44	1434
Barometric reservoir.	F. Rhind.	386,657	July 24	1951	515	44	406
Barrel.	G. S. Long.	381,077	Apr. 10	1181	314	43	238
Barrel-blanks. Cutter-head for cutting or trimming grooves of.	J. W. Philp.	389,006	Sept. 4	285	76	44	1127
Barrel, bucket, or tub.	T. H. Jacobs.	393,833	Dec. 4	143	39	45	1099
Barrel-carrier.	L. E. Webb and T. Johnson.	375,785	Jan. 3	87	26	42	21
Barrel-cover.	G. J. Cline.	393,212	Nov. 20	1510	395	45	903
Barrel-cover attachment.	B. F. Field.	383,349	May 22	2187	578	43	960
Barrel-filler.	L. Miller.	388,899	Sept. 4	139	37	44	1098
Barrel-filler.	T. W. Moran.	392,448	Nov. 6	405	100	45	670
Barrel for outhouses.	T. W. Carrio.	382,510	May 8	958	242	43	701
Barrel-head.	J. Alvord.	376,223	Jan. 10	708	188	42	145
Barrel-head.	D. R. Proctor.	392,570	Nov. 6	573	144	45	705
Barrel-head-making machine.	J. J. Philbrick.	379,602	Mar. 20	1087	289	42	1185
Barrel-beater.	E. D. Hughes.	388,045	Aug. 21	1291	349	44	836
Barrel-holder.	E. C. Gillem.	376,276	Jan. 10	916	240	42	184
Barrel-hoop.	C. S. Cannon.	377,799	Feb. 14	712	180	42	646
Barrel-hoop.	G. W. Parrish.	387,536	Aug. 7	498	130	44	669
Barrel-hoop.	R. W. Stewart.	392,473	Nov. 6	441	111	45	678
Barrel-lifter.	S. Turner.	380,640	Apr. 3	496	138	43	101
Barrel-making machine.	M. E. Beasley, G. J. G., and M. O. Rebfuss.	380,976	Apr. 10	1021	267	43	206
Barrel-making machine.	G. J. G., and M. O. Rebfuss.	380,931	Apr. 10	949	251	43	194
Barrel-making machine.	W. T. Vale.	384,730	June 19	1330	347	43	1390
Barrel-roller.	J. Roland.	379,851	Mar. 20	1477	390	42	1261
Barrel-setting-up machine.	M. E. Beasley, J. G. Rebfuss, and G. M. Newhall.	393,683	Nov. 27	2223	583	45	1053
Barrel-stand.	W. Beckett.	394,439	Dec. 11	1044	273	45	1279
Barrel-support. Tilting.	D. H. McKinnon.	394,931	Dec. 18	1870	454	45	1451
Barrel-swing.	C. C. Hiatt.	393,705	Nov. 27	2251	591	45	1059
Barrel-tester.	P. P. Bixler.	394,444	Dec. 11	1051	274	45	1281
Barrel-trussing machine.	J. A. Seaman.	376,487	Jan. 17	1076	282	42	221
Barrel-washer.	E. G. Ogden.	392,220	Nov. 6	64	16	45	607
Barrels and other vessels. Composition for filling up cracks in.	S. Klein and A. Schattels.	378,596	Feb. 28	1875	42	886	
Barrels. Apparatus for pitching.	L. and O. Haggemiller.	385,178	June 26	2003	513	43	1532
Barrels. Device for moving.	E. H. Mott.	382,618	May 8	1125	290	43	734
Barrels. Device for venting.	W. Nicklas and E. Beyer.	387,902	Aug. 14	1059	279	44	782
Barrels. Lattice-cover for.	C. A. Pratt.	393,174	Nov. 20	1449	378	45	891
Barrels. Machine for setting up.	G. M. Newhall.	393,571	Nov. 27	2045	536	45	1019
Barrow.	W. M. Potts.	388,715	Aug. 28	2316	623	44	1038
Barrow. Hand.	J. P. Friend.	385,609	July 3	418	106	44	82
Barrow-wheel.	J. W. Kreps.	394,703	Dec. 18	1472	384	45	1373
Barrow-wheel.	D. Long.	393,250	Nov. 20	1563	410	45	914
Basin, bath-tub, &c. Set wash.	W. Scott.	394,404	Dec. 11	998	262	45	1271
Basin. Catch.	J. Wiedmann.	377,056	Jan. 31	1931	507	42	399
Basins, sinks, &c. Trap for.	W. Scott.	394,405	Dec. 11	999	262	45	1272
Basins. Supply-fittings for.	J. Reid.	391,647	Oct. 23	2045	553	45	421
Basins. Waste-plug for wash.	A. Moore.	392,819	Nov. 13	956	245	45	785
Basket.	L. A. Brown.	378,492	Feb. 28	1729	456	42	857
Basket.	E. N. Little.	388,425	Aug. 28	1903	508	44	958
Basket-bottom.	A. W. Beckett.	378,757	Feb. 28	2099	553	42	927
Basket. Folding.	A. C. Kelly and A. M. Freeman.	385,633	July 3	455	117	44	88
Basket. Fruit.	G. H. Gillette.	382,761	May 15	1325	348	43	733
Basket. Fruit.	W. A. Hoss.	387,073	July 31	2583	680	44	533
Basket. Fruit.	J. H. Marvil.	382,176	May 1	437	114	43	594
Basket. Fruit.	J. H. Marvil.	387,895	Aug. 14	1047	275	44	780
Basket-handle.	W. J. Van Deusen.	390,536	Oct. 2	479	125	45	97
Basket or box. Folding.	C. R. Magniro.	389,753	Sept. 18	1452	380	44	1362
Basket. Provision.	J. Goldsmith.	387,639	Aug. 14	674	174	44	708
Baskets, &c. Apparatus for manufacturing.	L. Stevens.	382,278	May 1	588	149	43	622

## Alphabetical list of inventions—Continued

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Basting-machine	T. C. Robinson	378,905	Mar. 6	63	19	42	979
Bath:							
See Blotter-bath.	Photographic bath.						
Cabinet-bath.	Vapor-bath.						
Needle-bath.							
Bath apparatus. Portable vapor and hot-air	J. G. Davis	377,886	Feb. 14	826	211	42	667
Bath-tub	A. J. Kapp	393,335	Nov. 20	1691	446	45	939
Bath-tub seat	D. K. Frederick	393,226	Nov. 20	1530	401	45	907
Bath-tub seat	G. B. Sloat	390,407	Oct. 2	297	78	45	63
Bath-tub, sink, or wash-basin	C. H. Moore	379,973	Mar. 27	1664	444	42	1307
Bathing purposes. Apparatus for	F. C. F. Knaak	377,394	Feb. 7	42	12	42	503
Bathing the head. Device for	A. Heinemann	379,646	Mar. 20	1152	305	42	1198
Baton or club. Policeman's	E. D. Bean	385,293	June 26	2193	560	43	1569
Batteries. Apparatus for charging and discharging secondary	M. Pfatscher	387,988	Aug. 14	1186	321	44	810
Batteries. Automatic circuit-changer for secondary	W. W. Griscom	391,468	Oct. 23	1810	484	45	371
Batteries. Automatic switch for secondary	C. A. Fanne	382,599	May 8	1102	283	43	730
Batteries. Automatic switch for secondary	J. S. Sellon	378,527	Feb. 28	1774	469	42	866
Batteries. Automatic switch for secondary	J. S. Sellon	382,112	May 1	350	92	43	578
Batteries. Automatic switch for secondary	J. S. Sellon	384,289	June 12	671	179	43	1258
Batteries. Automatic switch for secondary	J. S. Sellon	392,826	Nov. 13	963	247	45	787
Batteries. Construction of stationary and itinerant electrical	J. T. Armstrong	380,971	Apr. 10	1012	263	43	205
Batteries. Diaphragm for galvanic	I. L. Roberts	394,616	Dec. 18	1333	45	1347	
Batteries. Diaphragm for galvanic	I. L. Roberts and H. L. Brevoort	394,617	Dec. 18	1335	45	1347	
Batteries. Electrode for secondary	S. L. Tripp	388,601	Aug. 28	2152	577	44	1007
Batteries. Electrode for storage	J. T. Van Gestel	388,746	Aug. 28	2351	635	44	1046
Batteries. Electrolyte for galvanic	D. H. Fisch	387,679	Aug. 14	736	44	720	
Batteries. Electrolyte for galvanic	B. J. Wheelock	395,028	June 26	1783	43	1488	
Batteries. Flexible sealed cell for secondary	M. Bailey and J. Warner	395,028	Dec. 25	2016	120	45	1488
Batteries. Indicator for secondary	S. C. C. Currie	393,744	Dec. 4	14	6	45	1075
Batteries. Indicator for secondary	S. C. C. Currie	394,100	Dec. 4	531	142	45	1173
Batteries. Manufacture of secondary	R. M. Hunter	383,575	May 29	2539	670	43	1032
Batteries. Plate for storage	C. D. P. Gibson	383,358	May 8	726	183	43	657
Batteries. Porous cup for electric	B. J. and J. W. Wheelock	386,569	July 24	1832	484	44	382
Batteries. Porous cup for galvanic	U. J. Brower	393,353	Nov. 27	1719	455	45	952
Batteries. Porous cup for galvanic	A. K. Eaton	395,344	July 2	10	44	4	
Batteries. Porous cup for galvanic	E. M. Hewett	390,597	Oct. 2	556	147	45	112
Batteries. Regulating-commutator for secondary	E. Julien	384,447	June 12	905	236	43	1301
Batteries. Rheotome mechanism for medical	H. B. Cox	389,640	Sept. 18	1281	337	44	1328
Batteries. Separating-diaphragms for galvanic	I. L. Roberts and H. L. Brevoort	394,614	Dec. 18	1330	319	45	1346
Batteries. Separating-partition for galvanic	H. L. Brevoort and I. L. Roberts	394,638	Dec. 18	1371	350	45	1353
Batteries. Separating-partition for galvanic	I. L. Roberts	394,613	Dec. 18	1329	318	45	1346
Batteries. Separator for electric	H. W. Butler	391,229	Oct. 16	1475	392	45	929
Batteries. Switch mechanism for electric	C. E. Ongley	389,001	Sept. 4	277	74	44	1126
Batteries. System of utilizing secondary	H. Edmunds	390,464	Oct. 2	275	96, 97	45	78
Batteries. Time-switch for secondary	W. F. Stocker	393,183	Nov. 20	1461	381	45	893
Batteries. Treating diaphragms and cups for use in electric	I. L. Roberts	394,615	Dec. 18	1332	45	1347	
Battery:							
See Carbon battery.	Gravity-battery.						
Ear-battery.	Non-polarizing constant-current battery.						
Electric battery.	Secondary battery.						
Electric storage-battery.	Secondary or storage electric battery.						
Galvanic battery.	Storage-battery.						
Battery connector. Secondary	H. H. Wiegand	394,897	Dec. 18	1808	468	45	1439
Battery-fluids. New mercuric salt for.	A. Schauschleff	379,820	Mar. 20	1425	42	1253	
Battery-jar	J. Serson	389,532	Sept. 11	1099	291	44	1289
Battery plate. Storage	C. D. P. Gibson	383,640	May 29	2631	696	43	1052
Battery plates. Apparatus for preparing secondary	A. P. Madden	382,098	May 1	333	57, 88	43	574
Battery plates. Filling secondary	H. G. Morris and P. G. Salom	383,757	May 29	2808	738	43	1087
Battery plates. Machine for making	A. P. Madden	391,542	Oct. 23	1905	511	45	391
Battery plates. Making secondary	L. Duncan	394,472	Dec. 11	1091	293	45	1288
Battery plates. Making secondary	L. Duncan	394,473	Dec. 11	1091	293	45	1288
Battery plates. Making secondary	W. W. Griscom	393,755	Dec. 4	33	11	45	1078
Battery plates. Manufacture of secondary	J. O. Ellinger	388,960	Sept. 4	927	60	44	1116
Battery-vessel	J. Wiest	378,484	Feb. 28	1714	452	42	854
Battery-zinc	J. Beattie, Jr.	376,228	Jan. 10	716	191	42	147
Battery-zinc	J. Beattie, Jr.	383,271	May 22	2083	548	43	941
Battery-zinc	R. L. Carr and P. Borden	387,049	July 31	2511	608	44	526
Battery-zinc	J. Doyle	385,254	June 26	2127	543	43	1557
Battery-zinc	B. Seales	388,312	Aug. 21	1733	463	44	921
Battery-zincs. Making	R. L. Carr and P. Borden	388,628	Aug. 28	2185	588	44	1014
Batting. Cotton or other	W. I. Lewis	388,056	Aug. 21	1309	353	44	840
Batting. Machine for making cotton	E. Walker and D. Williams	390,923	Oct. 9	1015	267	45	205
Beading-cutter	J. H. Anthony	378,159	Feb. 21	1329	323	42	752
Beam. Composite	H. C. Hodges	385,624	July 3	442	114	44	86
Beam-end protector	H. A. Goetz	386,976	July 31	2448	644	44	508
Beam-end protector	M. W. Mitchell	387,004	July 31	2487	653	44	515
Beam-straps. Implement for forming	H. McDougall and R. Potter	391,058	Oct. 16	1238	330	45	254
Beams. Making steel deck and channel	J. L. Pfan, Jr.	393,027	Nov. 20	1252	325	45	852
Bearing. Anti-friction	G. Buchholz	393,141	Nov. 20	1402	367	45	881
Bearing. Anti-friction	F. Corbett	381,023	June 5	265	75	43	1172
Bearing. Anti-friction	T. F. Flinn	386,698	July 24	2001	529	44	415
Bearing. Anti-friction	H. Hanson	386,315	July 17	1450	384	44	296
Bearing. Anti-friction	T. N. Subers	388,228	Aug. 21	1592	424	44	892
Bearing. Anti-friction	E. Warne	386,172	July 17	1231	329	44	256

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Bearing. Anti-friction	M. R. Wood	378,350	Feb. 21	1516	397	42	867
Bearing. Anti-friction	M. R. Wood	390,424	Oct. 2	315	83	45	67
Bearing-ball	J. Jackson	392,956	Nov. 13	1142	297	45	823
Bearing. Ball	E. B. Lake	389,231	Sept. 11	661	169	41	1205
Bearing for oscillating disks. Crank	J. Thomson	387,829	Aug. 14	941	215	44	761
Bearing for shafts. Anti-friction	W. J. Brewer	384,506	June 12	1002	261	43	1319
Bearing. Horizontal thrust	A. C. Rice	384,930	June 19	1623	421	43	1446
Bearing-lubricator	F. S. Somes	386,274	July 17	1398	168	44	286
Bearing. Propeller-shaft	J. Richardson	378,975	Mar. 6	157	45	42	997
Bearing. Roller	R. W. Hunt	387,356	Aug. 7	230	60	41	616
Bearing. Roller	R. W. Hunt	389,653	Sept. 18	1311	343	41	1333
Bearing. Roller	R. W. Hunt	394,269	Dec. 11	793	211	45	1292
Bearing. Roller	R. W. Hunt	394,769	Dec. 18	1503	417	45	1100
Bearing. Roller	R. W. Hunt	395,052	Dec. 25	2046	528	45	1491
Bearing. Safety-lock	P. W. Stapleton and M. L. Carnody	389,116	Sept. 4	475	122	44	1161
Beating engine	C. Aitchison	387,840	Aug. 11	963	250	41	765
Beating engine	J. Norton, Jr.	389,760	Sept. 18	1461	383	44	1364
Beating-out machine	J. C. Cateheon	384,893	June 19	1575	410	43	1436
Bed	S. R. Millen	392,743	Nov. 13	834	211	45	761
Bed, &c.	O. Flohr	389,292	Sept. 11	765	194	44	1226
Bed-bottom	W. F. Ade, Jr.	389,501	May 8	945	239	43	699
Bed-bottom	W. C. Bailey	382,401	May 8	757	200	43	619
Bed-bottom	C. Bignon	377,368	Feb. 7	2	1	42	495
Bed-bottom	A. H. Cleaveland	384,127	June 5	421	117	43	1202
Bed-bottom	E. A. Cleaveland	392,009	Oct. 30	2577	701	45	536
Bed-bottom	S. J. Dickson	393,547	Nov. 27	2021	529	45	1013
Bed-bottom	R. W. Homan	378,397	Feb. 21	1575	413	42	818
Bed-bottom	W. B. Noves	381,024	Apr. 10	1087	289	43	219
Bed-bottom	W. L. Phillips	381,948	May 1	69	17	43	528
Bed-bottom attachment	O. S. Foster	391,138	Oct. 16	1351	360	45	275
Bed-bottom. Spring	F. O. Badger	377,419	Feb. 7	113	24	42	516
Bed-bottom. Spring	A. Huber	387,787	Aug. 14	885	228	44	749
Bed-bottom. Spring	W. A. Mooney	382,486	May 8	922	234	43	694
Bed-bottom. Spring	W. H. Pennock	381,590	June 12	1120	296	43	1341
Bed-bottom. Spring	D. J. Powers	386,846	July 31	2259	595	44	470
Bed-bottom. Spring	F. C. Rhenbottom	392,755	Nov. 13	852	218	45	765
Bed-bottom. Spring	F. Spoehr	382,496	May 8	935	237	43	686
Bed-bottom. Spring	J. D. Stuart	379,138	Mar. 6	400	113	42	1041
Bed-bottom. Spring	E. F. Tilley	392,529	Nov. 6	516	130	45	693
Bed-bottom spring	H. Myers	384,925	June 19	1618	420	43	1445
Bed. Couch	J. P. Miller	378,708	Feb. 28	2035	537	42	916
Bed. Folding	E. C. Alexander and D. Lynn	390,640	Oct. 9	615	165	45	131
Bed. Folding	R. C. Bowers	376,851	Jan. 24	1652	432	42	337
Bed. Folding	A. S. Buttrey	392,585	Nov. 13	605	152	45	717
Bed. Folding	J. Condell	379,449	Mar. 13	846	228	42	1131
Bed. Folding	G. W. Cook	382,460	May 8	880	224	43	685
Bed. Folding	J. A. Etheridge and H. H. Flaspochler	392,913	Nov. 13	1079	220	45	811
Bed. Folding	W. T. Green	394,688	Dec. 18	1454	379	45	1370
Bed. Folding	E. E. Herrinton	380,258	Mar. 27	2066	553	42	1388
Bed. Folding	J. H. Hiscock	391,848	Oct. 30	2345	636	45	490
Bed. Folding	M. F. Koch	393,708	Nov. 27	2254	591	45	1059
Bed. Folding	G. A. Nelson	388,999	Sept. 4	275	73	41	1125
Bed. Folding	J. S. Roe	390,805	Oct. 9	811	225	45	173
Bed. Folding	P. L. Shepardson	389,018	Sept. 4	310	81	44	1132
Bed. Folding	I. C. Smith and E. E. Herrinton	380,223	Mar. 27	2021	540	42	1378
Bed. Folding	F. H. Walker	385,736	July 10	603	156	44	125
Bed. Folding or mantel	G. W. Bent	392,178	Nov. 6	5	2	45	595
Bed. Hospital transfer	E. D. Staples and H. E. Ashcraft	374,220	Feb. 21	1313	348	42	770
Bed inflating and heating apparatus combined. Invalid.	R. K. Pelton	381,274	June 12	651	175	43	1255
Bed-lounge	M. Clune	394,957	Dec. 25	1912	494	45	1468
Bed-lounge	F. B. Hemingway	387,513	Aug. 7	467	123	44	664
Bed-lounge	J. Hoey	375,817	Jan. 3	125	37	42	29
Bed-lounge leg. Folding	I. Hall	389,239	Sept. 11	774	196	44	1227
Bed or bed-bottom. Spring	F. M. Jeffery	385,118	June 26	1921	490	43	1516
Bed-pan	K. M. Duffey	380,478	Apr. 3	251	69	43	51
Bed-pan. Invalid's	G. W. Tooker	381,972	May 1	111	26	43	535
Bed. Sofa	J. P. Miller	395,247	Dec. 25	2373	607	45	1553
Bed-spring	J. Arn	392,708	Nov. 13	780	197	45	751
Bed-spring	C. W. Donnell	381,009	Apr. 10	1152	307	43	231
Bed. Spring	C. C. Ferry	377,377	Feb. 7	15	5	42	498
Bed. Spring	O. S. and W. S. Foster	381,137	Oct. 16	1349	459	45	275
Bed-stay	C. Bethae	390,336	Oct. 2	192	51	45	41
Bed. Turn-up	A. H. Merrill	380,046	Mar. 27	1775	475	42	1328
Beds. Clothes-clamp for	F. M. Conner	395,035	Dec. 25	2026	522	45	1410
Bedclothes-holder	G. O. Andrews	386,229	July 17	1330	351	44	274
Bedclothes-holder	H. W. Stetson	387,316	Aug. 7	270	68	44	624
Bedstead	M. Laspeyre	383,650	May 29	2644	700	43	1055
Bedstead. Adjustable crib	C. Morse	378,455	Feb. 28	1676	439	42	845
Bedstead attachment	H. W. Munsey	379,409	Mar. 13	791	213	42	1122
Bedstead-brace	J. C. Holmes	393,235	Nov. 20	1541	404	45	909
Bedstead-brace	C. P. Lewis	381,262	Apr. 17	1156	392	43	299
Bedstead-brace	D. G. Warfield	378,028	Feb. 11	1031	270	42	708
Bedstead. Cabinet folding	B. Poulson	391,421	Oct. 23	1744	466	45	357
Bedstead-fastener	P. Forg	385,960	June 26	2135	544	43	1559

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Bedstead. Folding .....	E. T. Smith .....	386,662	July 24	1958	517	41	407
Bedstead. Folding .....	J. G. Twiss .....	377,179	Jan. 31	2101	554	42	431
Bedstead. Folding or wardrobe .....	P. B. Williams .....	376,127	Jan. 10	572	153	42	129
Bedstead. Invalid .....	M. P. Hardy .....	382,872	May 15	1472	386	43	843
Bedstead-slat lock .....	R. D. Martin .....	386,022	July 10	1010	239	41	206
Bedstead. Wardrobe .....	N. G. Augier .....	394,006	Dec. 18	1652	432	45	1111
Bedstead. Wardrobe .....	F. B. Williams .....	376,126	Jan. 10	571	152 } 153 }	12	120
Bedsteads. Attachment for folding .....	F. B. Williams .....	392,503	Dec. 4	96	27	45	1092
Bedsteads for invalids. Attachment for .....	G. G. Rambo .....	392,636	Nov. 13	689	170	45	731
Bee-hive .....	E. S. Armstrong .....	384,819	June 19	1469	383 } 384 }	43	1417
Bee-hive .....	T. M. Cobb .....	388,761	Aug. 28	2381	612	41	1050
Bee-hive. Folding .....	L. C. Doyal .....	387,217	Aug. 7	30	7	41	578
Bee-hive .....	J. H. Howe .....	384,627	June 19	1181	311	43	1361
Bee-hive .....	B. F. Kendall .....	391,162	Oct. 16	1385	369	45	221
Bee-hive .....	J. Laser .....	383,737	May 29	2770	730	43	1081
Bee-hive .....	R. C. Smith .....	385,685	July 3	525	137	44	103
Bees. Device for hiving .....	W. J. Daniel .....	383,968	July 31	2434	610	41	505
Beef-tenderer .....	L. L. Welch .....	386,226	July 17	1327	350	41	274
Beer cooler .....	A. Anfrichtig .....	385,986	July 10	965	277	41	197
Beer-cooler .....	A. Hallowell .....	394,920	Dec. 18	1857	480	45	1448
Beer-cooling apparatus .....	A. Hallowell .....	394,921	Dec. 18	1860	481	45	1449
Beer-cooling device .....	J. F. Theurer .....	3-8,742	Aug. 28	2349	633	41	1045
Beer-making. Preparing masbes in .....	G. Sabotka, J. Blumer, and W. M. Davis .....	386,268	July 17	1388	366	41	285
Beer. Medicated or tonic .....	M. H. Kluber .....	386,250	July 17	1360	.....	44	280
Beer, wine, &c. Pasteurizing .....	H. Scharwächter .....	388,153	Aug. 21	1494	397	41	873
Bell .....	A. and A. Iske .....	379,114	Mar. 6	371	105	42	1035
Bell. Alarm .....	H. Nichols and H. C. Rose .....	391,483	Oct. 23	1826	489	45	335
Bell. Alarm .....	R. J. Whitson .....	382,343	May 8	698	175	43	651
Bell and alarm. Combined door .....	C. M. Dilley .....	381,539	Apr. 24	1875	495	41	391
Bell. Automatic .....	C. M. O'Leary .....	383,236	May 22	2026	531	43	911
Bell. Call .....	J. P. Connell .....	385,166	June 26	1988	509	43	1329
Bell-cord attachment .....	G. W. Naylor .....	383,587	May 29	2555	676	41	1035
Bell. Door .....	W. B. Atkinson .....	391,108	Oct. 16	1310	350	45	267
Bell. Door .....	J. W. Clark .....	393,818	Dec. 4	120	33	45	1095
Bell. Door .....	A. Iske .....	378,317	Feb. 21	1466	383	42	796
Bell. Door .....	F. Sanderson .....	386,164	July 17	1222	325 } 327 }	41	254
Bell. Door-mat .....	A. Iske .....	378,962	Mar. 6	140	41	42	994
Bell. Door or alarm .....	F. Sanderson .....	385,574	July 3	364	95	41	73
Bell. Electric .....	M. G. Crane .....	388,836	Sept. 4	40	12	41	1080
Bell. Electric .....	C. F. De Redon .....	381,765	Apr. 24	2189	552	43	461
Bell. Electric .....	A. Lügen .....	393,710	Nov. 27	2258	592	45	1060
Bell. Electric .....	J. F. McLaughlin .....	393,998	Dec. 4	384	101	45	1145
Bell. Electric .....	W. P. Stocker .....	377,539	Feb. 7	288	73	42	550
Bell. Electric .....	J. P. Tirrell .....	377,916	Feb. 14	870	221	42	677
Bell. Electric .....	F. B. Wood .....	381,314	Apr. 17	1526	412	41	314
Bell. Electro-magnetic .....	W. Humans .....	389,080	Sept. 4	396	101	41	1141
Bell. Electro-magnetic .....	J. and S. Wetzler .....	378,124	Feb. 21	1163	301	42	713
Bell. Gong .....	J. P. Connell .....	386,298	July 17	1428	377	41	292
Bell. Hand .....	W. E. Barton .....	386,288	July 17	1412	373	41	290
Bell or alarm. Call .....	V. A. Germain .....	386,632	July 24	1909	565	41	398
Bell or mechanical striker. Electrical .....	J. H. Brickford .....	381,823	Apr. 24	2290	595	43	479
Bell-pull. Electric .....	P. A. Harris .....	390,778	Oct. 9	800	215	45	137
Bell-ringer. Automatic .....	T. D. Jefferson .....	393,830	Dec. 4	139	38	45	109
Bell-ringer. Steam .....	G. B. Snow .....	384,095	June 5	369	101	43	112
Bell-ringer. Steam .....	G. B. Snow .....	385,580	July 3	372	95	41	71
Bell-ringer. Steam .....	G. B. Snow .....	388,736	Aug. 28	2340	630	44	1043
Bell-ringing apparatus .....	W. Schouren .....	392,072	Oct. 30	2660	725	45	573
Bell-ringing mechanism .....	J. Z. White .....	385,029	June 26	1784	461	41	1488
Bell. Signal .....	G. W. Eddy .....	381,917	May 1	27	8	43	520
Bell-striking mechanism .....	L. D. Jones .....	387,079	July 31	2580	682	41	535
Bells and annunciators. Detachable circuit-closing device for electric .....	J. D. Randall .....	391,917	Oct. 30	2442	660	45	510
Bellows .....	F. Christen .....	382,214	May 1	489	126	43	603
Bellows. Valve for .....	J. H. Chase .....	385,999	July 10	980	262	41	200
Belt and wheel. Driving .....	P. Adie .....	376,975	Jan. 21	1813	477	42	369
Belt-carrier tightener .....	R. W. and W. Menke .....	380,400	Apr. 3	138	41	43	29
Belt. Chain .....	C. W. Hunt .....	378,686	Feb. 28	2007	530	42	911
Belt-clamp .....	W. D. Vandecar .....	389,150	Mar. 27	1923	513	42	1358
Belt-clasp .....	L. Sanders .....	391,197	Oct. 16	1432	383	45	292
Belt-coupling .....	N. Quinn .....	389,695	Apr. 10	592	162	43	128
Belt. Driving .....	F. B. Brock .....	378,229	Feb. 21	1341	351	42	771
Belt. Driving .....	G. W. Heffner .....	393,902	Dec. 4	252	68	45	1120
Belt. Electric .....	C. B. Harness .....	389,568	Apr. 3	396	113	43	81
Belt. Electric .....	H. P. Pratt .....	388,581	Aug. 28	2119	569	41	1000
Belt-fastener .....	G. W. and P. C. Totman .....	377,218	Jan. 31	2166	571	42	446
Belt-fastener .....	E. Eastwood, 2d .....	391,695	Oct. 23	2105	570	45	433
Belt-fastener .....	H. Elmblad .....	384,434	June 12	886	230	43	1298
Belt-fastener .....	T. Gingras .....	380,104	Mar. 27	1862	495	42	1346
Belt-fastener .....	T. Gingras .....	380,105	Mar. 27	1863	495	42	1346
Belt-fastener .....	H. C. Herr .....	382,305	May 8	638	162	43	611
Belt-fastener .....	I. Jackson .....	390,233	Oct. 2	57	16	45	15
Belt-fastener .....	T. Lynett .....	391,076	Dec. 4	497	133	45	1167
Belt-fastener .....	W. N. Packer .....	384,465	June 12	926	241	43	1305
Belt-fastener .....	W. L. Potter .....	381,640	Apr. 24	2012	528	43	427
Belt-fastener .....	M. Seibold .....	389,604	Sept. 18	1228	321	44	1318
Belt-fastener .....	J. Snow .....	394,412	Dec. 11	1006	264	45	1773
Belt-fastener .....	W. O. Talcott .....	379,739	Mar. 20	1286	343	42	1226
Belt-fastener .....	E. Weitzman .....	377,129	Jan. 31	2042	534	42	421
Belt-fastening .....	A. Leforestier .....	392,873	Nov. 13	1027	263	45	801
Belt-fastening .....	J. M. Whittemore .....	391,103	Oct. 16	1306	248	45	267

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Belt. Galvanic	E. D. Granger	391,364	Oct. 16	1659	439	45	333
Belt. Lady's	F. Scholl	377,276	Jan. 31	2250	594	42	461
Belt. Medicated electric	C. U. Hoke	385,556	July 3	333	86	44	67
Belt-rest	B. F. and J. F. Comstock	389,688	Sept. 18	1356	356	41	1343
Belt-shifter	U. H. W. Schenck	379,988	Mar. 27	1685	450	42	1312
Belt-shifter and tightener	S. Slive	388,729	Aug. 28	2332	628	41	1041
Belt-shifter and trainer	F. L. Palmer	376,339	Jan. 10	867	227	42	175
Belt-shifting device	E. R. Hyde	375,752	Jan. 3	46	34	42	13
Belt-shipper	R. H. Harbnt	385,713	July 10	572	148	44	119
Belt. Sprocket	J. B. St. Louis	389,173	Sept. 4	570	144	44	1177
Belt-stretching machine	B. M. Plummer	394,008	Dec. 4	399	107	45	1147
Belt. Therapeutic electric	S. B. Bushfield	376,730	Jan. 24	1452	382	42	301
Belt-tightener	D. Bowman	380,081	Mar. 27	1830	487	42	1339
Belt-tightener	J. H. Bringold	382,587	May 8	1083	278	43	727
Belt-tightener	S. G. Hamter	386,130	July 17	1179	314	41	246
Belt-tightener	F. Leiminger	379,116	Mar. 6	374	106	42	1036
Belt-tightener	C. Pierce	382,007	May 1	185	48	43	548
Belt-tightener. Chain	O. Cooley	389,835	Sept. 18	1563	414	41	1285
Belt-tightener. Chain	O. Cooley	389,836	Sept. 18	1563	414	44	1385
Belts. Apparatus for stretching	M. Gandy	388,551	Aug. 28	2071	557	41	992
Belts. Battery-cell for electric	S. Colling	394,958	Dec. 25	1913	495	45	1468
Belts. Compound oil-dressing for rubber	G. W. Cooper	380,993	Apr. 10	1053		43	213
Belts. Device for stretching and tightening elevator	J. J. Doughty	390,213	Oct. 2	26	7	45	8
Belts. Fabric for driving	G. Schneider	378,151	Feb. 21	1216	317	42	750
Belts. Means for preventing the running off of	A. M. Barber and C. Gabriel	395,901	Dec. 25	2292	588	45	1538
Belting	L. Binns	383,208	May 22	1985	521	43	923
Belting	J. E. Emerson and T. Midgley	386,303	July 17	1435	379	44	294
Belting	J. B. Forsyth	385,703	July 10	556	145	44	116
Belting	T. Gingras	385,613	July 3	423	168	44	83
Belting	G. F. Page	394,503	Dec. 11	1129	293	45	1295
Belting for driving machinery. Chain or rope	M. Gandy	377,484	Feb. 7	202	48	42	534
Belting-machine	J. H. Adamson	376,174	Jan. 10	641	171	42	134
Belting. Machine	G. F. Page	385,682	July 3	521	135	44	102
Belting. Machine	C. A. Schieren	380,222	Mar. 27	2020	540	42	1378
Belting. Machine	C. A. Schieren	383,373	May 22	2320	589	43	966
Belting. Machine for manufacturing rubber	J. Murphy. (Reissue)	10,938	June 12	1137	299	43	1344
Belting. Manufacture of	J. E. Emerson and T. Midgley	386,305	July 17	1437	390	44	294
Belting. Manufacture of leather-link	C. A. Schieren	377,333	Jan. 31	2337	678	42	476
Belting. Manufacture of wire	T. Midgley	386,336	July 17	1472	390	44	301
Belting. Wire	T. Midgley	386,335	July 17	1471	390	44	301
Bench:							
See Gas-retort bench.	Welding-bench.						
Wash-bench.	Work-bench.						
Bench-dog	F. Larson	378,890	Mar. 6	49	14	42	975
Bench-dog	D. A. Owen	376,206	Jan. 10	689	182	42	141
Bench-hook	A. P. Millsbaugh	376,331	Jan. 10	859	225	42	174
Bench-stop	I. H. Terrell	384,405	June 12	849	221	43	1290
Bending-tool	D. Dingledine	387,498	Aug. 7	442	115	44	659
Berry or seed gatherer and cleaner	G. Wilkin	375,787	Jan. 3	89	27	42	22
Berth, chair, &c.	P. Davey	383,868	June 5	27	9	43	1126
Berth for cars, vessels, &c.	A. D. Hobbie	384,162	June 5	477	131	43	1213
Berth for sleeping-cars	J. H. Beckley and A. Kinney	392,842	Nov. 13	990	253	45	793
Berth. Self-leveling ship's	W. T. Milligan	376,542	Jan. 17	1158	304	42	236
Berth. Temporary ship's	G. Huron	394,186	Dec. 11	661	177	45	1206
Bessmer converters. Apparatus for introducing sand or other powdered or granulated substances into	J. J. Fronheiser	387,952	Aug. 14	1143	309	41	801
Bevel	L. D. Gould	376,301	Jan. 10	810	214	42	165
Bevel. Adjustable miter	M. Gates	392,508	Nov. 6	485	121	45	687
Bevel and square	H. W. Evans	389,370	Sept. 11	847	223	44	1246
Bevel. Carpenter's	R. Hayden	392,427	Nov. 6	372	92	45	664
Bevel-shaper, saw, and boring-machine. Reversible	H. D. T. Branton	379,930	Mar. 27	1005	426	42	1296
Beveler. Board	C. A. Lieb	392,616	Nov. 13	654	163	45	726
Beverage shaking and mixing machine	B. F. K. Jennings	390,971	Oct. 9	1009	290	45	220
Beverage shaking and mixing machine	B. F. K. Jennings	391,150	Oct. 16	1363	364	45	277
Beverages. Apparatus for dispensing	E. Hagné	393,106	Nov. 20	1357	354	45	872
Beverages. Apparatus for the manufacture of	P. E. Malmström and P. E. Dummer	395,244	Dec. 25	2369	666	45	1552
Beverages. Treating sparkling or effervescent	F. A. Reihlen	392,883	Nov. 13	1039	268	45	804
Bicycle	H. Brown	393,417	Nov. 27	1813	478	45	970
Bicycle	H. A. Davis	379,373	Mar. 13	740	201	42	1111
Bicycle	F. M. Drake	390,952	Oct. 9	1053	278	45	213
Bicycle	P. F. Villiez and A. C. Monnin	376,241	Jan. 10	730	194	42	150
Bicycle	S. Forman	394,067	Dec. 4	486	130	45	1164
Bicycle	C. F. Hadley	380,886	Apr. 10	878	236	43	160
Bicycle	H. F. Henry	393,904	Dec. 4	255	69	45	1120
Bicycle	G. Kibbe	393,837	Dec. 4	149	41	45	1100
Bicycle	T. O'Brien	388,906	Sept. 4	153	40	41	1101
Bicycle	H. S. Owen	392,523	Nov. 6	506	126	45	691
Bicycle	A. F. Price	384,543	June 12	1052	275	43	1318
Bicycle	S. Smith	382,913	May 15	1530	401	43	825
Bicycle	W. E. Smith	392,973	Nov. 13	1168	303	45	828
Bicycle	W. W. and H. Spencer	386,168	July 17	1226	328	44	255
Bicycle	C. W. Sponsel	392,889	Nov. 13	1047	270	45	805
Bicycle	W. F. Stevens	390,916	Oct. 9	1005	263	45	203



## Alphabetical list of inventions--Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec	Dr.	Vol.	Page.
Bicycle.	G. T. Warwick	386,097	July 10	1125	300	44	228
Bicycle attachment.	H. H. Holtkamp	390,368	Oct. 2	240	45	45	51
Bicycle-lighting.	W. T. Bowers	384,120	June 5	411	114	43	1199
Bicycle-lock.	T. H. Gongware and E. K. Hanley	391,241	Oct. 16	1191	3-6	45	302
Bicycle-pedal.	W. E. Smith	385,074	June 26	1862	476	43	1503
Bicycle-saddle.	A. H. Overman	392,821	Nov. 13	958	246	45	786
Bicycle-step.	T. Benfield	379,557	Mar. 20	1017	272	42	1174
Bicycle-support.	J. F. Conley	378,496	Feb. 28	1734	457 458 493 494	42	858
Bicycle. Tandem.	T. O'Brien	336,601	July 24	1869	491 492	44	390
Bicycle. Tandem.	W. E. Smith	391,490	Oct. 23	1837	491 492	45	377
Bicycles and other vehicles. Alarm for.	F. M. Demarest	385,547	July 3	321	83	44	65
Bicycles. Shoe attachment for.	H. M. Carter	388,949	Sept. 4	214	57	44	1113
Bicycles. Umbrella attachment for.	C. Snowden	380,059	Mar. 27	1794	479	42	1332
Bidet.	J. Reid	392,461	Nov. 6	425	106	45	674
Bill-holder.	H. E. Leasure	390,685	Apr. 10	579	159	43	125
Bill of fare. Changeable.	D. E. Terrill	391,745	Oct. 23	2203	595	45	453
Bills, letters, or samples. Receptacle for containing classified.	A. Sanders	379,665	Mar. 20	1176	312	42	1204
Billiard-cue.	W. H. Fesler	384,614	June 19	1159	306	43	1357
Billiard cue and tip.	F. P. Hull	390,860	Oct. 9	922	243	45	187
Billiard-cushion.	J. D. O'Connor	383,005	May 15	1662	435	43	849
Billiard-marker. Coin-actuated.	E. C. Jones	383,228	May 22	2013	528 529	43	928
Billiard-table.	W. P. Flint	385,346	July 3	11	3	44	4
Billiard-table.	J. Köstner	393,910	Dec. 4	263	71, 72	45	1192
Billiard-tally.	E. D. Waterbury	388,006	Aug. 14	1229	334	44	818
Bin.							
See Feeding-bin. Grocer's bin.							
Flour and meal bin.							
Bin.	E. T. Hunter	379,166	Mar. 6	433	122	42	1048
Binder.	N. Hawkins. (Reissue)	10,903	Feb. 21	1609	422	42	825
Binder.	A. K. Owen	390,984	Oct. 9	1113	294	45	223
Binder. Temporary.	F. W. Barrett	385,339	July 3	3	2	44	3
Binder. Temporary.	M. F. Perry	392,402	Nov. 6	338	83	45	684
Binder. Temporary.	G. V. Clifford	394,249	Dec. 11	760	201	45	1225
Binder. Temporary.	L. H. Kemper	392,516	Nov. 6	497	125	45	669
Binder. Temporary.	W. M. Kinnard	394,189	Dec. 11	665	178	45	1207
Binder. Temporary.	W. B. Lane, Jr.	394,496	Dec. 11	1119	291	45	1294
Binder. Temporary.	J. H. Louder	395,158	Dec. 25	2228	573	45	1528
Binder. Temporary.	W. D. Ready	388,717	Aug. 28	2318	624	44	1038
Binder. Temporary.	W. D. Ready	394,394	Dec. 11	985	258 259	45	1269
Binder. Temporary.	W. E. Weeks	386,513	July 24	1749	463	44	367
Binders, &c. Roller-tension for self.	E. B. Karn	395,059	Dec. 25	2063	532	45	1498
Binders. Tension for self.	W. H. Stine	379,063	Mar. 6	321	93	42	1026
Binding-strap.	J. W. Mansfield	390,933	Sept. 25	1730	458	44	1425
Bird and packing box.	C. I. Wooster	388,385	Aug. 21	1852	492	44	941
Bird-cage spring.	E. Wagner	385,571	May 8	1053	268	43	721
Bird-cages. Cuttle-bone and food holder for.	J. V. Wemple	385,650	July 3	477	123	44	93
Bird-food holder.	H. F. Estabrook	382,255	May 1	558	141	43	616
Biscuit.	M. Frischer	392,507	Nov. 6	485	.....	45	687
Bisulphites. Apparatus for preparing solutions of.	G. Schenck	395,082	Dec. 25	2095	543	45	1505
Bit.							
See Bridle-bit. Coal-drill b't.							
Bit-blanks. Machine for grooving.	J. Swan	381,092	Apr. 10	1211	324	43	243
Bit-brace.	A. D. White	378,274	Feb. 21	1406	368	42	785
Bit, countersink, and screw-driver. Combined.	F. B. Carpenter	385,791	July 10	685	179	44	142
Bit-cage.	J. B. Windle	390,936	Oct. 9	1035	273	45	210
Bit-holder for bit-stocks.	H. Smiley	376,557	Jan. 17	1174	309	42	239
Bitters.	C. E. and E. Bizzozero	392,776	Nov. 13	895	.....	45	773
Bitumen compound and making the same.	M. S. Higbie and A. W. Dougherty	387,358	Aug. 7	234	.....	44	617
Bituminous substances. Machine for disintegrating.	E. Groat	382,973	May 15	1613	422	43	840
Blackboard.	M. E. Converse	393,214	Nov. 20	1512	396	45	904
Blackboard and wiping and dust-collecting apparatus.	J. Kane	382,705	May 15	1255	328	43	769
Blackboard compound.	A. H. Williams	392,482	Nov. 6	453	.....	45	660
Blackboard. Spherical.	W. R. Story	379,914	Mar. 20	1578	416	42	1280
Blackboards. Attachment for spherical.	W. R. Story	379,915	Mar. 20	1580	416	42	1281
Blacking-box.	W. K. David	385,916	July 10	876	232	44	179
Blacking-box holder.	G. P. Cragin	378,954	Mar. 6	131	38	42	992
Blacking-box holder.	G. W. Jopson and N. W. Crandall	375,823	Jan. 3	132	38	42	31
Blacking-box holder.	W. Taylor	384,338	June 12	751	197	43	1272
Blanket-case.	W. G. Northup	385,422	July 3	134	36	44	28
Blanket-clasp.	D. Walker	387,834	Aug. 14	957	248	44	764
Blanking-presses. Feeding mechanism for.	R. A. Brel	395,211	Dec. 25	2307	592 593 682 683	45	1541
Blast apparatus. Sand.	H. A. and H. A. House, Jr.	391,971	Oct. 30	2523	682 683	45	526
Blast-furnace.	F. W. Gordon	388,275	Aug. 21	1675	448	44	910
Blast-furnace.	E. A. Wheeler	378,749	Feb. 28	2085	550	42	925
Blast-furnace bosh-plate.	J. Kenney	378,550	Feb. 28	1806	477	42	873
Blast-furnaces. Apparatus for filling.	S. Thomas	377,873	Feb. 14	805	206	42	663
Blast-furnaces. Dust-catcher for.	F. W. Gordon	384,774	Apr. 21	2199	575	43	464
Blast or exhaust apparatus.	J. Y. Smith	386,502	July 24	1723	456	44	363
Bla pipe.	H. Appleby	391,931	Oct. 30	2164	666 667 673 674	45	514
Blast-pipe.	A. Appleby and J. G. Robinson	390,937	Oct. 9	1036	673 674	45	210
Blasting.	G. Trench	393,798	Dec. 4	90	.....	45	1090
Blasting.	M. Waddell	386,281	July 17	1404	370	44	288
Blasting-cartridges. Cap-protector for.	T. De Coar and W. Keast	380,477	Apr. 3	250	69	43	51

*Alphabetical list of inventions—Continued.*

Invention	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Blasting. Friction-primer for.....	A. F. Andrews .....	379,147	Mar. 6	411	116	42	1041
Blasting-plug.....	A. Winder.....	378,820	Feb. 28	2306	568	42	910
Bleaching.....	E. Hermite.....	382,159	May 1	412	108	43	579
Bleaching and dyeing apparatus.....	T. Davies.....	283,869	June 5	28	9	43	1126
Bleaching apparatus.....	W. R. Phillips.....	384,867	June 19	1541	460	43	1130
Bleaching. Apparatus for electric.....	E. Hermite and C. F. Cooper.....	379,465	Mar. 13	875	236	42	1139
Bleaching by electrolysis. Apparatus for.....	E. Hermite and C. F. Cooper.....	378,681	Feb. 28	2001	529	42	110
Bleaching edible nuts.....	F. M. Ironmonger.....	386,202	July 17	1268	.....	41	204
Bleaching fiber.....	J. Smith and P. W. Nicolle.....	389,944	Sept. 25	1745	.....	41	1123
Bleaching wax.....	R. M. Perrine.....	389,898	Sept. 25	1681	444	41	1115
Blind fastener. Window.....	W. Simmonds.....	383,596	May 29	2565	679	41	1038
Blind-finishing machine.....	L. Rivers.....	388,447	Aug. 28	1934	517	41	975
Blind for windows. Inside.....	C. H. Ames.....	393,052	Nov. 20	1260	331	45	850
Blind. Inside.....	H. A. Benedict.....	375,992	Jan. 3	351	91	42	71
Blind. Inside.....	H. A. Benedict.....	384,954	June 26	1660	431	41	1011
Blind-slat and operating-rod.....	F. W. Wright.....	385,689	July 3	520	138	41	101
Blind-slat-tenoning machine.....	W. H. Doane.....	391,231	Oct. 16	1477	392	45	300
Blind slats. Machine for smoothing and finishing.....	A. F. Tyler.....	379,826	Sept. 18	1550	410	41	1283
Blind. Slatted.....	J. A. Sherington.....	391,649	Apr. 24	2024	531	41	429
Blind-stop.....	P. M. Miessner.....	379,120	Mar. 6	378	107	42	1037
Blind-stop.....	W. A. Stickney.....	376,686	Jan. 17	1385	265	42	273
Blind-stop.....	T. Warren.....	395,020	Dec. 25	2008	518	45	116
Blind-stop.....	G. W. Williams.....	379,748	Mar. 20	1299	347	42	1228
Blind. Venetian.....	S. S. Patterson.....	383,978	June 5	204	59	43	1159
Blind. Window.....	F. A. Bernard.....	394,553	Dec. 18	1219	318	45	1326
Blinds. Blind-rod for sliding.....	G. Poppert.....	390,930	Apr. 10	948	251	43	194
Blinds, &c. Cord-holder for holding the cords of.....	E. Tonks.....	385,829	July 10	740	193	44	151
Blinds, &c. Cord-holder for Venetian.....	J. R. Earnshaw.....	387,499	Aug. 7	443	116	41	660
Blinds. Hanging and operating Venetian.....	F. W. Wright.....	385,654	July 3	482	124	44	91
Block.....							
See Brake-block. Paving-block.							
Building-block. Pillow-block.							
Carriage-top-prop block. Pinning-block.							
Carriage-loading block. Pulley-block.							
Carriage-loading block. Saw-mill head-block.							
Block. Snatch-block.							
Hat-block. Stove-block.							
Lettering-block. Thrust-block.							
Meat-block. Wagon-brake block.							
Block and tackle.....	C. J. Hibberd.....	379,113	Mar. 6	370	105	42	1035
Block-signal.....	G. W. Peterson.....	382,053	May 1	268	70, 71	43	562
Bloom shear-table and crop-end conveyer.....	F. H. Treat.....	281,220	June 5	558	153	43	1229
Blooms. Apparatus for transferring.....	R. P. Dolan.....	379,507	Mar. 13	911	253	42	1150
Blotter and pen-wiper. Combined.....	E. Pronis.....	378,719	Feb. 28	2048	541	42	919
Blotter-bath.....	H. F. Arnold.....	378,641	Feb. 28	1932	513	42	858
Blotter-bath.....	C. M. Beardsley.....	375,794	Jan. 3	97	29	42	23
Blotter. Ink.....	H. Heinke.....	379,067	Mar. 6	297	86	42	1722
Blotter. Roller.....	H. B. Campbell and J. Shaw.....	387,968	Aug. 14	1169	317	44	805
Blotting device or pad.....	S. S. Cole.....	393,359	Nov. 27	1729	458	45	954
Blotting-pad.....	C. M. Moore.....	377,040	Jan. 31	1905	501	42	394
Blow-pipe.....	G. W. Melotte.....	394,657	Dec. 18	1401	365	45	1359
Blow-pipe apparatus.....	J. B. Root.....	377,467	Feb. 7	181	43	42	130
Blow-pipe flames. Saturator for the production of vapor.....	F. E. Ives.....	385,934	July 10	900	239	44	14
Blow-pipe furnace.....	F. J. McLaren.....	383,971	June 5	193	56	43	1157
Blower and chimney-draft controller. Combined.....	C. M. Carrier.....	386,529	July 24	1777	470	41	312
Blower and induction apparatus. Combined fan.....	F. Murphy.....	387,177	July 31	2742	719	44	560
Blower and induction apparatus. Fan.....	F. Murphy.....	387,173	July 31	2746	719	44	561
Blower. Folding fire.....	J. M. McMeen.....	388,571	Aug. 28	2105	565	44	978
Blower for boiler-furnaces.....	T. H. Chamption.....	393,357	Nov. 27	1726	457	45	954
Blower. Grate.....	W. S. Harris.....	391,359	Dec. 11	935	245	45	1260
Blower. Rotary pressure.....	G. Crowell.....	388,639	Aug. 28	2202	592	44	1016
Blowers or other machines. Intermitent grip for fan.....	J. P. Bender.....	376,361	Jan. 10	896	235	42	180
Blowing-engine.....	E. Reynolds.....	393,856	Dec. 4	180	49	45	1106
Board.....							
See Bosom-board. Gang-board.							
Bulletin-board. Ironing-board.							
Card-board. Mold-board.							
Center-board. Multiple switch-board.							
Dash-board. Pitch-board.							
Drawing-board. Plow mold-board.							
Electric switch-board. Spelling-board.							
Game-board. Switch-board.							
Wash-board.							
Board of composite material.....	A. Mack.....	389,102	July 10	1134	301	44	229
Boat.....							
See Ferry-boat. Portable boat.							
Life-boat. Seine-boat.							
Life-saving buoy-boat. Torpedo-boat.							
Tow-boat. Velocipede-boat.							
Boat.....	H. E. McGuire.....	388,783	Aug. 28	2113	651	44	1056
Boat.....	G. N. Tibbles.....	381,729	Apr. 24	2143	561	43	453
Boat-building. Former for.....	M. Y. Ransom.....	391,272	Oct. 16	1539	408	45	311
Boat construction.....	J. H. Hunt.....	386,432	July 17	1620	426	41	331
Boat-davit attachment.....	C. F. Rodin.....	389,410	Sept. 11	932	214	44	1257
Boat-detaching apparatus.....	R. M. G. Brown.....	378,763	Feb. 28	2106	556	42	929

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Boat-detaching apparatus.	H. E. Foster.	385,608	July 3	416	106	44	81
Boat-detaching apparatus.	A. McCrackin.	385,866	July 10	801	212	44	163
Boat-launching carriage.	H. J. Woods.	390,543	Oct. 2	489	128	45	99
Boats. Construction of.	A. Olsen.	378,613	Feb. 28	1895	501	42	890
Boats. Guard and canopy-support for.	J. W. Dolliver.	393,221	Nov. 20	1525	399	45	906
Boats. Outtrigger for.	M. E. Bosca.	377,966	Feb. 14	972	253	42	697
Boats. Outtrigger for row.	H. E. Campbell.	391,944	Oct. 30	2481	671	45	518
Boats, &c. Releasing device for.	J. L. Cathcart.	380,786	Apr. 10	733	201	43	154
Boats. Rolling seat for.	J. R. Kerns.	392,867	Nov. 13	1022	262	45	800
Boats. Rolling seat for row.	J. R. Breese.	391,939	Oct. 30	2476	669	45	517
Bobbin.	C. Hardy.	385,667	July 3	498	128	44	96
Bobbin-winder. Automatic.	C. Bell.	377,421	Feb. 7	116	24	42	516
Bobbin-winding machine.	J. Koerber.	387,080	July 31	2590	682	41	535
Bobbin-winding machine.	J. McCrary.	386,644	July 24	1927	509	44	402
Bobbin-winding machine.	C. B. Rumsey.	380,352	Apr. 3	72	24	43	17
Bobbin-winding machine.	C. F. Wickwire.	390,932	Oct. 9	1029	271	45	209
Bobbins, &c. Providing protection for the ends of.	G. O. Boynton and F. C. Johnson.	379,151	Mar. 6	415	117	42	1044
Boiler.							
See Egg-boiler.	Steam-boiler.						
Hot-water boiler.	Tubular boiler.						
Locomotive-boiler.	Wash-boiler.						
Sectional boiler.	Water-tube boiler.						
Boiler.	A. Catepole.	379,048	Mar. 6	273	79, 80	42	1017
Boiler.	F. W. Dean.	385,102	June 26	1901	485	43	1511
Boiler.	W. E. Dean.	380,746	Apr. 10	663	783	43	141
Boiler.	G. P. Erhard.	390,466	Oct. 2	381	97, 98	45	79
Boiler.	J. F. Gray.	394,852	Dec. 18	1737	450	45	1426
Boiler.	W. E. Haxton.	381,240	Apr. 17	1426	383	43	293
Boiler.	G. E. Hopkin.	387,076	July 31	2586	6-1	44	534
Boiler.	W. T. Hopson.	394,858	Dec. 18	1745	453	45	1428
Boiler.	J. Jr. and W. T. Hopson.	395,142	Dec. 25	2199	565	45	1522
Boiler.	J. Leighton.	389,969	Sept. 25	1776	471	44	1435
Boiler.	W. B. Mack.	386,998	July 31	2477	651	44	514
Boiler.	G. F. Nilsson.	382,722	May 15	1275	334	43	772
Boiler.	E. Orewiler and E. R. Larcomb.	387,805	Aug. 14	911	236	44	754
Boiler.	J. K. Purinton.	379,245	Mar. 13	556	155	42	1077
Boiler.	H. Warden.	377,792	Feb. 14	703	177	42	644
Boiler.	C. Wheat.	385,830	July 10	742	194	44	152
Boiler.	A. Worthington.	377,001	Jan. 24	1852	488	42	376
Boiler.	A. Worthington.	377,002	Jan. 21	1853	488	42	376
Boiler.	A. Worthington.	381,870	Apr. 24	2362	612	43	493
Boiler-alarm.	J. J. Heghan.	383,946	June 5	155	45	43	1150
Boiler-alarm. Steam.	S. Lloyd.	393,911	Dec. 4	964	72	45	1122
Boiler and furnace.	A. Stirling.	381,595	Apr. 24	1953	515	43	415
Boiler attachment. Auxiliary.	J. H. Laumann.	377,313	Jan. 31	2304	609	42	471
Boiler-cleaner.	J. R. Lane and A. D. Davies.	390,866	Oct. 9	931	245	45	188
Boiler cleaner. Steam.	J. S. Roake.	389,718	Sept. 18	1405	367	44	1353
Boiler-cleaning compound.	J. A. and G. A. Wright and W. and T. Abbott.	391,105	Oct. 16	1308	.....	45	267
Boiler-cleaning compound. Galvanic.	F. J. Clamer.	387,145	July 31	2698	707	44	552
Boiler-cleaning compound. Galvanic.	F. J. Clamer.	387,146	July 31	2699	707	44	552
Boiler-covering.	C. B. Manville.	378,372	Feb. 21	1544	404	42	812
Boiler-feed indicator.	W. H. Rodgers.	382,732	May 15	1288	337	43	776
Boiler-feed pipe.	S. B. Bryar.	382,753	May 15	1315	345	43	781
Boiler-feeder.	A. Blatchley.	384,119	June 5	410	114	43	1199
Boiler-feeder.	J. H. Kruse and L. A. Smith.	379,520	Mar. 13	960	259	42	1155
Boiler-feeder.	G. S. Neu.	394,715	Dec. 18	1491	389	45	1378
Boiler-feeder.	J. E. Winder.	385,893	July 10	815	223	44	173
Boiler-feeder regulator.	G. A. Riedel.	379,776	Mar. 20	1339	358	42	1236
Boiler feeder. Steam.	G. A. Colby.	387,553	Aug. 7	538	140	44	676
Boiler-feeding attachment.	M. P. Janney.	383,227	May 22	2012	523	43	928
Boiler-feeding device. Steam.	W. Burnham.	394,828	Dec. 18	1689	410	45	1418
Boiler flue-cleaner. Steam.	C. G. Davison.	379,564	Mar. 20	1026	274	42	1175
Boiler for hot-water heaters.	R. Neil and J. Morrison.	384,461	June 12	923	240	43	1305
Boiler for steam-heating.	H. and C. A. McLaughlin.	377,322	Jan. 31	2316	672	42	473
Boiler-furnace.	M. Kearney and M. C. Hawley.	393,336	Nov. 20	1692	446	45	939
Boiler-furnace.	J. A. Palmer.	393,579	Nov. 27	2059	538	45	1021
Boiler-furnace.	G. W. Parketon.	351,082	Apr. 10	1198	321	43	240
Boiler-furnace.	W. W. Sutcliffe.	389,773	Sept. 18	1477	388	44	1368
Boiler furnace. Steam.	J. F. Clark.	385,444	July 3	167	45	44	34
Boiler furnace. Steam.	J. T. and J. H. Ellis.	385,509	July 3	265	68	44	54
Boiler furnace. Steam.	C. E. Southard.	386,275	July 17	1399	368	44	2-7
Boiler furnace. Steam.	R. Whelan.	375,905	Jan. 3	237	64	42	49
Boiler grate and furnace. Steam.	G. Gulickson.	380,719	Apr. 10	623	171	43	133
Boiler-heads. Apparatus for making.	H. Warden.	377,791	Feb. 14	701	176	42	644
Boiler-heating apparatus. Burner for steam.	W. Walton.	386,568	July 24	1831	480	44	382
Boiler-pedestal.	A. P. Creque.	375,734	Jan. 3	18	5	42	7
Boiler pipe-coupling.	J. Hollinger.	377,156	Jan. 31	2073	545	42	428
Boiler-scale preventer.	C. F. Baker.	382,748	May 15	1309	341	43	780
Boiler-setting.	J. D. Rasey.	386,159	July 17	1215	324	44	253
Boiler setting. Steam.	W. U. Fairbairn.	380,197	Mar. 27	1986	532	42	1371
Boiler setting. Steam.	M. E. Hershey.	392,428	Nov. 6	372	92	45	694
Boiler stand. House.	H. C. Weedon.	375,847	Jan. 3	161	45	42	36
Boiler-tube cleaner.	N. Blanchard.	390,060	Sept. 25	1917	506	44	1462
Boiler-tube cleaner.	C. E. Kendall.	386,988	July 31	2164	617	44	511
Boiler-tube cleaner.	H. Randall.	377,171	Jan. 31	2093	552	42	432

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Boiler-tube cleaner.....	G. M. Robinson.....	379,728	Mar. 20	1272	339	42	1223
Boiler-tube cleaner. Steam-	P. H. Grimm.....	376,820	Jan. 24	1602	420	42	328
Boiler-tubes. Device for preventing the incrustation of	A. Fickett.....	392,548	Nov. 6	544	137	45	698
Boilers. Apportioning furnace-draft for batteries of steam-	N. W. Pratt.....	382,489	May 8	926	235	43	695
Boilers. Apportioning furnace-draft for batteries of steam-	N. W. Pratt.....	382,490	May 8	928	235	43	695
Boilers. Automatic fuel-regulator for	G. E. Brettell.....	383,557	May 29	2522	665	43	1027
Boilers, &c. Covering or jacket for steam-	J. M. Riley.....	394,398	Dec. 11	990	239	45	1270
Boilers. Device for preventing incrustation in steam-	W. B. Bull.....	383,795	May 29	2875	756	43	1099
Boilers. Electrical apparatus for preventing corrosion of steam-	A. J. Marquand.....	393,072	Nov. 20	1312	342	45	863
Boilers. Hydrocarbon-furnace for steam-	F. W. Ofeldt.....	393,850	Dec. 4	171	46	45	1104
Boilers. Junction-piece for steam-	G. S. Strong.....	381,039	Apr. 10	1118	{ 299 300 }	43	226
Boilers. Preventive of incrustation of steam-	C. J. T. Burcey.....	376,579	Jan. 17	1206	319	42	247
Boilers. Removing impurities from steam-	J. Binks.....	382,508	May 8	955	242	43	701
Boilers. Smoke-consuming apparatus for steam-	A. Dou.....	376,948	Jan. 24	1778	468	42	363
Boilers. Steam-generating attachment for	G. W. Tilton.....	387,271	Aug. 7	102	26, 27	44	592
Boilers, tanks, &c. Coupling for	J. J. Whiter.....	377,506	Feb. 7	245	59	42	541
Bolster-spring	S. S. Byers.....	379,097	Mar. 6	349	99	42	1031
Bolster-spring	W. Cole.....	391,023	Oct. 16	1191	316	45	215
Bolt:							
See Alarm-bolt. King-bolt.							
Elevating-bolt. Latch-bolt.							
Flour-bolt. Rotary bolt.							
Bolt.....	F. Celce.....	380,184	Mar. 27	1965	525	42	1367
Bolt.....	C. Diebold.....	384,238	June 12	596	161	43	1245
Bolt.....	J. T. Gunniss.....	389,646	Sept. 18	1299	340	44	1331
Bolt.....	J. J. Holland.....	389,704	Sept. 18	1384	362	44	1348
Bolt.....	H. B. Ives.....	378,067	Feb. 14	1081	284	42	718
Bolt.....	G. D. Mardoch.....	380,813	Apr. 10	764	210	43	160
Bolt.....	J. E. Parker.....	376,544	Jan. 17	1161	305	42	237
Bolt.....	J. Potter.....	376,258	Jan. 10	758	201	42	155
Bolt.....	C. W. F. Thode.....	388,229	Aug. 21	1593	425	44	892
Bolt.....	W. W. Woodford.....	378,857	Feb. 28	2268	603	42	960
Bolt, bar, &c.	O. R. Butler.....	391,879	Oct. 30	2386	647	45	499
Bolt-cutter	G. B. De Arment.....	388,957	Sept. 4	234	60	44	1115
Bolt-cutter	W. L. Dutcher.....	382,034	May 1	239	61	43	557
Bolt-cutter	D. J. Sligh.....	389,766	Sept. 18	1467	384	44	1366
Bolt for connecting rails for permanent ways	G. Coulon.....	394,098	Dec. 4	529	142	45	1172
Bolt-heading die	F. Mutimer.....	378,936	Mar. 6	109	31	42	987
Bolt-heading machine.	E. N. Whitaker.....	385,080	June 26	1868	477	43	1504
Bolt-heading machine.....	W. N. Whiteley, O. E. and A. S. } Perrigo.	383,083	May 15	1800	{ 466 467 468 469 470 471 }	43	876
Bolt-lock	W. A. Jordan.....	384,206	June 5	543	149	43	1226
Bolt-threading machine	J. A. Becher.....	377,981	Feb. 14	965	251	42	696
Bolt-turning machines. Blank-feeder and gripping-die for	C. H. Graham.....	394,170	Dec. 11	633	{ 169 170 171 }	45	1202
Bolts. Machine for cutting the threads on	W. S. Halsey.....	380,887	Apr. 10	880	{ 236 237 }	43	180
Bolts. Making hollow bars for stay-	W. B. Weil.....	379,837	Mar. 20	1452	384	42	1257
Bolts. Manufacturing	F. Mutimer.....	376,673	Jan. 17	1364	358	42	275
Bolts. Mesh-clearer for	W. H. George.....	390,359	Oct. 2	229	61	45	48
Bolts, nuts, &c. Machine for shaving heads of	H. Mintor.....	380,917	Apr. 10	992	247	43	189
Bolting-machine	T. W. Graham.....	390,224	Oct. 2	46	12	45	12
Bolting-reel	C. S. Alderman.....	395,026	Dec. 25	2014	520	45	1488
Bolting-reel	H. Bridenthal.....	381,324	Apr. 17	1539	415	43	316
Bolting-reel	J. B. Dobson.....	391,406	Oct. 23	1721	{ 458 459 }	45	353
Bolting-reel	G. A. Gilbert.....	387,872	Aug. 14	1008	203	44	773
Bolting-reel	W. D. Gray.....	393,825	Dec. 4	128	35	45	1097
Bolting-reel	W. D. Gray.....	393,826	Dec. 4	129	36	45	1097
Bolting-reel	D. L. Hamaker.....	384,520	June 12	1021	266	43	1323
Bolting-reel	B. Kniffler.....	382,095	May 1	331	86	43	574
Bolting-reel	O. M. Morse.....	381,023	Apr. 10	1086	288	43	219
Bolting-reel	M. Shaner.....	380,527	Apr. 3	333	95	43	68
Bolting-reel frame.	W. E. Gorton.....	382,152	May 1	401	105	43	587
Bomb-lance	F. W. Luscomb and D. A. Corey.....	385,416	July 3	125	34	44	26
Book	G. D. Barnard.....	390,197	Oct. 2	3	1	45	3
Book	G. D. Barnard.....	392,840	Nov. 13	986	253	45	792
Book	T. C. Ranshaw.....	387,917	Aug. 14	1091	289	44	769
Book	T. C. Ranshaw.....	387,918	Aug. 14	1093	289	44	790
Book	J. M. Rose.....	393,664	Nov. 27	2193	575	45	1047
Book. Account.	J. W. Horne.....	393,507	Nov. 27	1950	510	45	997
Book. Account.	A. A. Whipple.....	386,370	July 17	1519	402	44	311
Book and index. Combined	H. G. Razall.....	392,066	Oct. 30	2660	723	45	552
Book and index. Combined	R. M. Rigby.....	383,543	May 29	2506	661	43	1025
Book and making the same. Record.	J. W. See.....	384,288	June 12	669	179	43	1258
Book and slate. Combined	W. T. Jamison.....	379,469	Mar. 13	881	237	42	1140
Book. Bank account.	W. Thomson.....	385,648	July 3	475	123	44	92
Book. Bank account.	W. Thomson. (Reissue).....	10,977	Dec. 25	2451	630	45	1563
Book-binding	W. M. Kinnard.....	379,649	Mar. 20	1155	305	42	1199
Book-binding	M. Ryan.....	379,334	Mar. 13	683	185	42	1101
Book-binding	P. M. Wood and J. L. McMillan.....	392,938	Nov. 13	1114	289	45	817
Book-binding and book	W. M. Kinnard.....	381,252	Apr. 17	1444	388	43	296
Book-binding apparatus	G. H. Ogdon.....	391,266	Oct. 16	1524	{ 405 406 }	45	309
Book. Blank.	J. W. Horne.....	393,506	Nov. 27	1949	510	45	997

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dr. %.	Vol.	Page.
Book. Blank	J. M. Rose	384,933	June 19	1626	422	43	1447
Book. Check	A. Carmichael and S. D. Townsend	382,457	May 8	876	223	43	685
Book-clip	J. W. Nolan	387,364	Aug. 7	245	63	41	619
Book. Combination order	H. A. Bate	376,506	Jan. 17	1108	290	42	227
Book. Copying	E. R. Solliday	390,526	Oct. 2	463	120	45	94
Book-cover	E. V. Fohlin	382,148	May 1	398	104	43	587
Book-cover	T. Kelly	384,697	June 19	1296	338	43	1383
Book-cover	C. F. Morgan	382,719	May 15	1270	333	43	772
Book-cover	O. W. K. J. Nordentalk	381,846	Apr. 24	2326	604	43	487
Book-cover fastener. Memorandum	L. A. Lipman	395,155	Dec. 25	2225	572	45	1527
Book covers. Manufacturing	F. H. Lieker	391,977	Oct. 30	2531	685	45	527
Book-covers. Sheath for	C. H. Caryl	390,449	Oct. 2	351	93	45	74
Book-folding machines. Point mechanism for	J. H. Stonemetz	379,737	Mar. 20	1284	342 343	42	1225
Book holder	H. Blake	375,723	Jan. 3	3	1	42	3
Book holder	A. J. Gibbs	392,115	Oct. 30	2751	748	45	570
Book holder	F. P. Harbaugh	390,363	Oct. 2	236	63	45	49
Book holder	I. S. Hollidge	388,952	Sept. 4	247	65	41	1119
Book holder	E. H. Roys	393,521	Nov. 27	1961	517	45	1004
Book-index-cutting machine	A. Kothe	383,252	May 22	2053	539	43	936
Book. Indexed shipping	F. C. Johnson	394,576	Dec. 18	1267	332	45	1335
Book. Letter-copying	S. Chadwick	391,299	Oct. 16	1574	417	45	317
Book. Letter-copying	H. M. Underwood	385,433	July 3	148	39, 40	44	30
Book-leveler	W. M. Kinnard	389,891	Sept. 25	1673	442	44	1413
Book-lock	S. A. Cohen	392,411	Nov. 6	350	86	45	660
Book. Manifold order	J. S. McDonald	377,360	Jan. 31	2381	688	42	484
Bookmark and clasp	S. Powell	388,149	Aug. 21	1490	396	44	872
Book-mark. Reference	H. H. Russell	376,110	Jan. 10	538	143	42	114
Book-protector	P. F. Van Everen	377,968	Feb. 14	949	247 248	42	693
Book-rack	S. J. Talbot	387,267	Aug. 7	98	25	44	591
Book. Receipt and record	H. Loewenbach	390,087	Sept. 25	1961	522	44	1472
Book-rest	A. R. Byrkit	389,952	Sept. 25	1754	464 465	44	1430
Book-rest for the use of invalids	T. H. D. May	394,196	Dec. 11	676	181	45	1209
Book. Sample	J. E. Spears	394,516	Dec. 11	1154	300	45	1299
Book. Scrap	H. Crocker	384,746	June 19	1353	353	43	1395
Book-signatures. Machine for gathering and collating	S. E. Johns	380,898	Apr. 10	901	241	43	185
Book-stapling machine	E. P. Donnell and S. McAniffie	386,972	July 31	2437	641 642	44	506
Book-support	J. R. Cline	385,445	July 3	168	45, 46	44	34
Book-support	J. W. Coultas	393,542	Nov. 27	2016	527	45	1012
Book support or holder	R. S. Kirkpatrick	393,649	Nov. 27	2169	569	45	1043
Book. Turf-racing record	P. Mitchell	384,266	June 12	638	172	43	1252
Books. Binding	J. J. Meston and N. S. Dygert	379,874	Mar. 20	1520	400	42	1270
Books. Binding blank	T. Beckett	377,880	Feb. 14	820	209	42	665
Books. Binding-clamp for receipt	C. J. Noel and J. Maurer	389,896	Sept. 25	1679	443	44	1414
Books. Binding for	T. F. Gregg	391,604	Oct. 23	1988	536	45	409
Books. Binding for blank	H. S. Miles and F. Haas	391,816	Oct. 30	2287	621	45	479
Books. Binding of	A. J. Megee	383,315	May 22	2144	565 566	43	952
Books. Case for the preservation of	C. D. Threlkeld	381,182	Apr. 17	1341	357 358	43	277
Books. Corner-cutter for	W. Braidwood	391,681	Oct. 23	2088	566	45	430
Books. Fastening-band for memorandum	S. J. Young	393,198	Nov. 20	1490	389	45	899
Books. Identifying-label for	J. M. Beers	388,012	Aug. 21	1239	337	44	828
Books. Manufacturing	J. M. Beers	376,848	Jan. 24	1648	431	42	337
Boom-fastening	J. H. Rushton	383,594	May 29	2562	678	43	1037
Boom for yachts, &c. Spinnaker	A. C. Crandall	383,172	May 22	1934	507	43	912
Boom-grip	J. Masten	375,759	Jan. 3	53	16	42	14
Boom-stick	F. H. Durell and W. Goldie	381,494	Apr. 17	1799	478	43	367
Boot	H. L. Benson	390,552	Oct. 2	504	132	45	101
Boot	A. M. Warren	378,988	Mar. 6	187	51	42	1002
Boot and shoe box fixture. Mercantile	T. H. Cobb and C. L. Bowen	376,070	Jan. 10	485	131	42	104
Boot and shoe heels. Machine for molding and compressing	W. E. Cummings and T. P. Coombs	391,124	Oct. 16	1328	354	45	271
Boot and shoe nailing machine	L. Goddu	385,892	July 10	698	182	44	144
Boot and shoe tree	S. Mawhinney	391,978	Oct. 30	2532	685 686	45	527
Boot. Button	M. J. Ferren	389,211	Sept. 11	624	159	44	1197
Boot. Button	F. J. Hastings	386,069	July 10	1073	287	44	220
Boot-crimper	J. Albrecht	394,748	Dec. 18	1549	405	45	1390
Boot-crimping frame	E. Hood	377,898	Feb. 14	845	216	42	671
Boot-drier	G. A. Hess	386,746	July 24	2073	546	44	428
Boot. Felt	H. W. Hathorn	381,155	June 5	464	128	43	1210
Boot-heel	P. Linden	380,292	Mar. 27	2110	564	42	1396
Boot. Lumberman's	J. H. Stickney	388,597	Aug. 28	2147	576	44	1006
Boot or shoe	G. T. Chapman	378,040	Feb. 14	1045	273	42	711
Boot or shoe	J. E. Crosby	388,838	Sept. 4	44	12	44	1081
Boot or shoe	S. Dalsheimer	379,452	Mar. 13	856	231	42	1135
Boot or shoe	H. Edlandt	376,183	Jan. 10	650	173 174	42	136
Boot or shoe	G. S. Frantz	384,437	June 12	891	232 233	43	1299
Boot or shoe	J. W. French	392,264	Nov. 6	128	32	45	619
Boot or shoe	H. W. Furber	380,715	Apr. 10	616	169	43	132
Boot or shoe	W. T. Hooker	388,134	Aug. 21	1457	390	44	867
Boot or shoe	S. Jeffers	379,471	Mar. 13	883	238	42	1140
Boot or shoe	O. H. Jewell	380,804	Apr. 10	753	206	43	15
Boot or shoe	J. W. Jones and E. K. Bridger	382,985	May 15	1632	427	43	843
Boot or shoe	W. F. Kearney	383,303	May 22	2131	562	43	949
Boot or shoe	J. A. Kelly	380,290	Mar. 27	2109	564	42	1396
Boot or shoe	C. W. King	386,833	July 31	2241	559	44	467



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Boot or shoe.	W. D. Kline	376,154	Jan. 10	612	165	42	128
Boot or shoe.	G. A. Macker.	391,478	Oct. 23	1821	487	45	373
Boot or shoe.	C. F. Martine. (Reissue).	10,919	Apr. 3	555	151	43	112
Boot or shoe.	W. D. McCoy	393,776	Dec. 4	60	17	45	1084
Boot or shoe.	R. N. Pratt and H. W. Johns.	381,579	Apr. 24	1924	507	43	409
Boot or shoe.	L. J. Shrader	380,408	Apr. 3	147	42	43	31
Boot or shoe.	W. H. Stevens	387,119	July 31	2648	607	44	546
Boot or shoe.	W. H. Stevens.	387,120	July 31	2648	697	44	516
Boot or shoe.	G. Valiant	385,218	June 26	2062	529	43	1544
Boot or shoe.	B. F. Whitney	377,416	Feb. 7	410	23	42	515
Boot or shoe.	C. H. Winter	378,034	Feb. 14	1038	271	42	710
Boot or shoe fastening.	C. W. King.	392,677	Nov. 13	736	187	45	742
Boot or shoe heel.	S. D. Densmore.	386,969	July 31	2434	640	44	505
Boot or shoe heel.	J. German	389,563	Sept. 18	1158	304	44	1306
Boot or shoe heel.	H. C. Hart.	376,987	Jan. 24	1829	481	42	372
Boot or shoe heel.	E. Kempshall.	376,824	Jan. 24	1008	421	42	329
Boot or shoe heel.	C. H. Martin	384,634	June 19	1190	314	43	1363
Boot or shoe heel fastening.	H. C. Hart.	376,988	Jan. 24	1830	481	42	372
Boot or shoe heels. Apparatus for making.	A. Farina.	393,592	Dec. 4	236	63	45	1117
Boot or shoe heels. Nail for.	H. A. Webster	394,802	Dec. 18	1647	431	45	1410
Boot or shoe last.	W. R. Chase.	385,502	July 3	254	65	44	51
Boot or shoe nail or rivet.	G. A. Cavalli	382,072	May 1	298	78	43	568
Boot or shoe nailing machine.	J. E. Cutlan	388,640	Aug. 28	2204	592 593	44	1017
Boot or shoe shank.	C. Cooper.	388,263	Aug. 21	1561	443	44	967
Boot or shoe shank-stiffener.	T. Green.	393,468	Nov. 27	1901	497	45	956
Boot or shoe sole.	G. Boivin.	393,140	Nov. 20	1401	366 367	45	881
Boot or shoe sole.	J. Booth	385,402	July 3	98	27	44	21
Boot or shoe sole.	F. A. Cushman	379,765	Mar. 20	1324	353	42	1233
Boot or shoe sole.	G. W. Ellis	377,244	Jan. 31	2204	581	42	453
Boot or shoe sole.	A. Hanvey	386,778	July 24	2120	557	44	436
Boot or shoe sole.	C. A. Keith	393,241	Nov. 20	1551	406	45	912
Boot or shoe sole.	F. W. Munroe	379,023	Mar. 6	239	67	42	1011
Boot or shoe sole edge trimming machine.	V. Beauregard. (Reissue).	10,960	Oct. 2	612	162	45	123
Boot or shoe sole fitting machine.	W. Avery	382,631	May 8	1142	294	43	738
Boot or shoe sole trimming machine.	C. H. Trask	380,609	Apr. 3	456	129 130	43	93
Boot or shoe soles. Dieing-out machine for.	W. O. Cree and G. A. Clough, Jr.	382,294	May 8	622	159	43	638
Boot or shoe soles. Machine for buffing.	G. A. Fullerton.	382,967	May 15	1604	419 420	43	839
Boot or shoe soles. Machine for channeling and feather-edging.	A. Eppler, Jr.	387,058	July 31	2554	671	44	529
Boot or shoe stretcher.	J. Donovan	385,508	July 3	264	67	44	53
Boot or shoe stretcher.	W. Jones	375,939	Jan. 3	291	78	42	60
Boot or shoe supporter.	C. Prouty.	379,980	Mar. 27	1676	416	42	1310
Boot or shoe tree.	S. Mawhinney	393,514	Nov. 27	1969	513	45	1002
Boot or shoe trimming machine.	C. H. Trask	383,331	May 22	2160	570 571	43	954
Boot or shoe upper.	T. Nally	378,898	Mar. 6	56	16, 17	42	977
Boot or shoe upper and preparing it for lasting.	C. A. Keith.	377,391	Feb. 7	38	11	42	503
Boot or shoe uppers. Implement for fluting.	C. T. Wood.	391,002	Oct. 9	1145	302	45	229
Boot or shoe. Ventilated.	H. A. Stevens	381,962	May 1	88	22	43	532
Boot or shoe ventilator.	A. Jensen	379,579	Mar. 20	1058	282	42	1110
Boot protector. Felt.	H. Saunders and E. C. Rauch.	380,823	Apr. 10	779	213	43	163
Boot-strap gage.	O. Johnson	389,474	Sept. 11	1021	272	44	1274
Boot-tree.	G. H. Clark	388,831	Sept. 4	33	10	44	1079
Boot-treing machine.	G. W. Copeland	385,296	June 26	2197	561 562	43	1570
Boot-treing machine.	A. B. Fowler	393,003	Nov. 27	1921	317	45	845
Boot. Woolen.	W. H. Dodge and R. D. O. Smith	376,373	Jan. 10	911	239	42	113
Boot. Woven felt.	J. C. Hillman	388,042	Aug. 21	1288	348 349	44	836
Boots and shoes. Lasting.	J. W. Hatch	378,444	Feb. 28	1660	436	42	842
Boots and shoes. Manufacturing.	J. W. Hatch	378,445	Feb. 28	1660	436	42	842
Boots and shoes. Rack for holding.	S. L. Saunders.	380,938	Apr. 10	959	255	43	105
Boots and shoes. Rack for use in the manufacture of.	A. Barrows.	383,551	May 29	2514	663	43	1026
Boots. Device for drying.	W. E. Laird	395,063	Dec. 25	2068	534	45	1499
Boots. Machine for manufacturing Congress.	C. W. Shippee	390,263	Oct. 2	91	26	45	21
Boots. Making combined knit and cloth.	D. Beatty.	380,163	Mar. 27	1938	517	42	1361
Boots. Manufacture of woolen.	W. H. Dodge and R. D. O. Smith	376,372	Jan. 10	910	238 239	42	189
Boots or shoes. Attaching heels and top lifts to.	C. W. Glidden	388,553	Aug. 28	2075	558	44	992
Boots or shoes. Attaching heels to.	C. C. Small	376,049	Jan. 3	450	120	42	90
Boots or shoes. Button-piece for.	A. Shea	380,731	Apr. 10	615	178	43	158
Boots or shoes. Detachable sole plate and spike for.	S. Kingston and W. H. McGunnigal	383,133	May 22	1884	491	43	902
Boots or shoes. Device for expanding the uppers of.	W. F. Wellman	392,384	Nov. 6	306	77	45	633
Boots or shoes. Flush-nailing the heels of.	F. F. Raymond, 2d.	380,133	Mar. 27	1902	508	42	1354
Boots or shoes. Follower or form for.	G. H. Clark.	394,154	Dec. 11	614	164	45	1198
Boots or shoes. Heating apparatus for.	F. Batter	382,681	May 15	1223	317	43	762
Boots or shoes. Machine for making welts for.	M. L. Keith	376,310	Jan. 10	824	217	42	167
Boots or shoes. Machine for marking the uppers of.	J. E. Plummer.	387,106	July 31	2625	690 691	44	541
Boots or shoes. Machine for molding heel-stiffeners for.	G. A. Knox.	383,580	May 29	2545	672	43	1023
Boots or shoes. Machine for uniting the soles and uppers of.	S. W. Robinson.	380,662	Apr. 3	531	147	43	107
Boots or shoes. Manufacture of.	J. C. Ivory	382,878	May 15	1487	329	43	817
Boots or shoes. Manufacture of.	M. L. Lion and F. Cutlan	376,411	Jan. 10	963	251	42	193
Boots or shoes. Manufacture of counter-stiffeners for.	P. Cox.	385,746	July 10	622	162 163	44	129
Boots or shoes. Manufacture of heels for.	A. L. F. Mitchell and J. P. Reynolds, Jr.	383,139	May 22	1890	493	43	903
Boots or shoes. Manufacture of welted.	M. L. Keith	381,384	Apr. 17	1634	435	43	334

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Boots or shoes. Manufacturing	J. W. French	379,640	Mar. 20	1141	303	42	1197
Boots or shoes. Sock or insole for	T. Barker	387,335	Aug. 7	202	53	44	610
Boots or shoes. Staple for	E. H. Buckley	387,854	Aug. 14	982	256	44	768
Boots or shoes. Tool for furnishing	J. H. Busell	393,537	Nov. 27	2007	524	45	1010
Boots or shoes. Tool for inking the sole-edges of	F. P. Buzzell	377,846	Feb. 14	771	197	42	656
Boring and tapping machine	J. Gielow	376,032	Jan. 3	429	114	42	86
Boring and tapping tool	G. W. Buck	391,777	Oct. 30	2222	602	45	466
Boring-bar	W. Bramwell and W. N. Boyle	389,360	Sept. 11	850	218	44	1243
Boring bars. Automatic feed for	S. A. Brumbaugh	383,210	May 22	1987	521	43	923
Boring, drilling, driving, and withdrawing screws, &c. Machine for	M. C. Henley. (Reissue)	10,892	Jan. 3	461	124	42	93
Boring, drilling, &c. Machine for	M. C. Henley	383,730	May 29	2761	728	43	1078
Boring-machine	F. E. Keyes	384,854	June 19	1521	396	43	1427
Boring-machine	H. Longwell	389,849	Sept. 18	1599	422	44	1391
Boring-machine	H. Longwell	392,960	Nov. 13	1147	298 299	45	823
Boring-machine	W. D. Tripp	386,566	July 24	1830	483	44	381
Boring-mill	A. C. Steponius	392,170	Oct. 30	2833	768	45	585
Boring-tool	M. Quass	376,906	Jan. 24	1732	452	42	352
Bosom-board	F. H. Argersinger	389,682	Sept. 18	1351	354	44	1342
Bottle	H. Ader	378,752	Feb. 28	2089	550	42	926
Bottle	J. Canau	389,953	Sept. 25	1755	465	44	1430
Bottle	E. Storm	379,615	Mar. 20	1107	294	42	1189
Bottle	E. Storm. (Reissue)	10,969	Nov. 27	2291	601	45	1066
Bottle attachment	G. P. Whittlesey	378,276	Feb. 21	1408	368	42	786
Bottle-case	E. L. Walker	388,325	Aug. 21	1754	468 469	44	924
Bottle-cleaner	W. D. Butz	392,102	Oct. 30	2734	743	45	567
Bottle-cleaner	A. G. A. Ekroth	393,100	Nov. 20	1349	352	45	870
Bottle-closure	W. Edmundson	385,852	July 10	779	206	44	158
Bottle-closure	W. Rodiger	385,011	June 26	1757	455	43	1482
Bottle-fastener. Automatic	T. B. Howe	394,490	Dec. 11	1111	289	45	1292
Bottle-filler	W. H. Comstock	384,022	June 5	964	75	43	1172
Bottle. Ink	N. Johnson	376,001	Jan. 3	380	101	42	77
Bottle. Ink	E. B. Snedigar	378,022	Feb. 14	1023	207	42	707
Bottle. Internally stoppered	D. Rylands	376,916	Jan. 24	1736	456	42	354
Bottle. Mucilage	W. Rodiger	380,458	Apr. 3	225	61	43	46
Bottle-necks. Machine for finishing	H. Semple	384,290	June 12	673	180	43	1259
Bottle. Nursing	W. F. Ware	380,835	Apr. 10	794	217	43	166
Bottle-opener and liquid-dropper. Combined	E. S. Randall	384,471	June 12	932	242	43	1306
Bottle. Perfumery	W. W. Stewart	390,317	Oct. 2	160	45	45	35
Bottle-rinsing machine	J. Masson	390,688	Oct. 9	682	182	45	144
Bottle-stopper	R. Bloeser	379,149	Mar. 6	413	117	42	1044
Bottle-stopper	W. A. Bond	388,525	Aug. 28	2037	548	41	985
Bottle-stopper	W. A. Caswell	384,824	June 19	1474	385	43	1418
Bottle-stopper	G. S. Chamberlin	383,277	May 22	2092	550	43	942
Bottle-stopper	W. C. Church	376,977	Jan. 24	1816	477	42	369
Bottle-stopper	J. Conner	382,459	May 8	879	224	43	685
Bottle-stopper	J. H. Corey	391,948	Oct. 30	2487	673	45	519
Bottle-stopper	G. A. Fullerton	390,586	Oct. 2	545	144	45	110
Bottle-stopper	B. Hegele	391,709	Oct. 23	2133	576	45	438
Bottle-stopper	W. Heston and J. M. Akers	387,232	Aug. 7	47	11	44	581
Bottle-stopper	C. Hitchcock and E. M. Chapman	394,182	Dec. 11	655	176	45	1205
Bottle-stopper	L. S. Hoyt	383,812	May 29	2905	767	43	1105
Bottle-stopper	P. Kötigen	389,707	Sept. 18	1389	363	44	1349
Bottle-stopper	F. P. Morhous	377,042	Jan. 31	1908	502	42	394
Bottle-stopper	F. P. Morhous	377,043	Jan. 31	1908	502	42	395
Bottle-stopper	F. P. Morhous	378,800	Feb. 28	2170	577	42	942
Bottle-stopper	A. Philburn and A. Moors	394,294	Dec. 11	832	221	45	1239
Bottle-stopper	W. H. Redington	382,191	May 1	456	118	43	598
Bottle-stopper	T. Terrell	387,379	Aug. 7	273	69	44	624
Bottle-stopper	T. G. Turner	389,677	Sept. 18	1346	353	44	1341
Bottle-stopper	S. Twitchell	380,957	Apr. 10	990	262	43	201
Bottle-stopper	W. H. Underwood	378,743	Feb. 28	2075	547	42	924
Bottle-stopper	G. L. Waitt	379,919	Mar. 20	1584	417	42	1282
Bottle-stopper	W. Wright	386,176	July 17	1239	330	44	258
Bottle-stopper and fastening	S. L. Wiegand	379,623	Mar. 20	1122	297	42	1192
Bottle-stopper fastening	G. A. Gemiuden and A. F. Gärtner	388,854	Sept. 4	74	19	44	1087
Bottle-stopper. Faucet	L. S. Hoyt	378,366	Feb. 21	1537	402	42	811
Bottle-stopper holder	C. A. Tatum	389,263	Sept. 11	711	181	44	1215
Bottle-stoppers. Machine for making wire fasteners for	J. H. Reed and J. E. Wheeler	378,177	Feb. 21	1250	329	42	757
Bottle-top	I. Pomeroy	378,108	Feb. 21	1145	299	42	738
Bottle-washer	J. C. Mackintosh	382,964	June 5	186	54	43	1156
Bottle-washer	A. Von Schade	377,875	Feb. 14	811	207	42	664
Bottle-washing machine	H. Palmer	381,638	Apr. 24	2011	528	43	427
Bottles. Capsule for	C. Cheswright	389,954	Sept. 25	1757	465	44	1430
Bottles. Combined spreader and stopper for mucilage and other	W. H. Underwood	378,744	Feb. 28	2076	548	42	924
Bottles. Cork-holder for	W. Beardsley	382,859	May 15	1456	382	43	810
Bottles. Device for finishing the necks of	J. Finerty and F. A. Moore	395,220	Dec. 25	2338	598	45	1546
Bottles. Forming indents, &c., in internally-stoppered	D. Rylands	376,915	Jan. 24	1735	456	42	354
Bottles, jars, &c. Machine for grinding the mouths of glass	J. K. Cummings	387,555	Aug. 7	542	140	44	676
Bottles. Machine for washing lager-beer	H. F. Ward	393,675	Nov. 27	2213	580	45	1052
Bottles. Machine for wiring corks in	B. Adriance	390,742	Oct. 9	758	198 199 200 201 202	45	157
Bottles. Neck-band for	M. M. Wilcox	392,390	Nov. 6	320	70	45	655
Bottles. Packing for	E. J. Stewart	381,290	Apr. 17	1490	401	43	306
Bottles. Safety device for druggists	A. Geyer	392,561	Nov. 13	1013	260	45	798

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Bottles. Screw-stopper for .....	H. Barrett and J. J. Varley .....	380,782	Apr. 10	724	198	43	152
Bottles. Tool for grooving the mouths of .....	W. H. Wilson .....	382,929	May 15	1551	406	43	829
Bottling and cask-filling apparatus .....	L. A. Enzinger .....	388,272	Aug. 21	1671	447	44	909
Bottling apparatus .....	S. Bunting .....	385,840	July 10	759	199	44	154
Bottling machine. Beer .....	J. C. Bauer .....	582,023	May 1	214	57	43	553
Bouquet-holder .....	S. B. Coston .....	393,886	Dec. 4	227	61	45	1115
Bouquet-holder .....	J. G. S. Smith .....	394,889	Dec. 18	1791	464	45	1437
Bow-drill .....	A. Pranke .....	380,517	Apr. 3	323	92	43	66
Bowls. Making wooden .....	J. Berkey .....	380,742	Apr. 10	658	182	43	140
Box:							
<i>See</i> Axle-box. Match-box.							
Ballot-box. Milk-box.							
Bird and packing box. Miter-box.							
Blacking-box. Music-box.							
Bread, cake, or cheese box. Musical box.							
Casting-box. Oil-press box.							
Cigar-box. Packing-box.							
Cock-box. Paper box.							
Collection-box. Photographic developing-box.							
Confectionery-box. Pool-ball box.							
Core-box. Post-office box.							
Cracker-box. Provision-box.							
Delivery-box. Sheet-metal box.							
Deposit-box. Sign-box.							
Fare-box. Signaling-box.							
Feed-box. Slince-box.							
File-box. Spindle-box.							
Fire-alarm box. Stereotyping casting-box.							
Fire-alarm signal-box. Stop-box.							
Folded box. Street-box.							
Fruit-box. Strong box.							
Hat-box. Stuffing-box.							
Honey-box. Telegraph call-box.							
Journal-box. Tobacco-box.							
Knockdown box. Tool-holding box.							
Letter-box. Toy box.							
Locomotive fire-box. Toy money-box.							
Locomotive journal-box. Wagon-box.							
Locomotive journal-box. Watch-box.							
Locomotive journal-box. Watch-movement box.							
Box .....	J. D. Griswold .....	385,924	July 10	824	234	44	181
Box .....	C. H. Hardin .....	391,145	Oct. 16	1358	363	45	276
Box .....	A. T. Linderman .....	378,601	Feb. 28	1879	497	42	887
Box .....	H. S. Munson .....	390,307	Oct. 2	146	41	45	32
Box .....	W. H. Scott .....	381,889	Apr. 24	2390	621	43	500
Box and drawer corner .....	J. B. West .....	390,421	Oct. 2	312	82	45	66
Box-corner fastening .....	W. O. Tegtmeyer .....	395,015	Dec. 25	2000	516	45	1485
Box-fastener .....	W. N. Barr .....	386,912	July 31	2357	619	44	489
Box-fastener .....	J. Davy .....	386,188	July 17	1253	334	44	260
Box-fastener .....	G. Linder and C. Farner .....	376,805	Jan. 24	1582	414	42	325
Box-fastener .....	C. and E. H. Morgan .....	388,992	Sept. 4	267	71	44	1124
Box-fastener .....	W. and J. Rnsh .....	387,260	Aug. 7	90	23	44	580
Box-fastener .....	J. Wotruba .....	394,320	Dec. 11	874	231	45	1218
Box for furs .....	W. Flynn .....	377,482	Feb. 7	200	47	42	534
Box for holding gummed letters, &c .....	H. Willson .....	378,911	Mar. 6	70	21	42	980
Box for packing cloaks, &c .....	C. W. Lewis .....	389,309	Sept. 11	785	199	44	1329
Box for the sale of goods .....	C. T. Rosenthal .....	376,261	Jan. 10	761	202	42	156
Box-frame-bending machine .....	S. Valentine .....	395,094	Dec. 25	2113	546 547	45	1508
Box-handle .....	J. A. Trant .....	391,283	Oct. 16	1554	412	45	314
Box-lining machine .....	A. C. Bolton .....	379,358	Mar. 13	712	194	42	1107
Box-lid .....	W. D. Harrison .....	385,305	June 26	2211	567	43	1573
Box-loops. Die for finishing .....	F. H. Perkins and L. L. Miller .....	377,267	Jan. 31	2236	591	42	458
Box-opener .....	R. A. Knight .....	389,228	Sept. 11	656	168	44	1204
Box-opener and tobacco-claw .....	D. W. Thacker .....	394,547	Dec. 11	1207	314	45	1309
Box or canister .....	A. F. Fitz Gerald .....	390,763	Oct. 9	787	210	45	163
Box or case .....	A. H. Storey .....	382,120	May 1	300	94	43	580
Box or crate .....	C. E. Parks .....	386,157	July 17	1213	324	44	253
Box or receptacle .....	E. J. Hauck .....	384,156	June 5	465	128	43	1210
Box-sections. Machine for cutting .....	P. Robideau .....	383,148	May 22	1903	497 498	43	906
Box-stapling machine .....	C. L. Lasch .....	378,321	Feb. 21	1476	385 386	42	798
Boxes. Apparatus for applying strips to .....	T. Remus .....	383,656	May 29	2652	702 703	43	1057
Boxes. Machine for making .....	J. R. Stout .....	393,404	Nov. 27	1791	473	45	967
Boxes. Machine for manufacturing wooden .....	E. W. Locke .....	390,493	Oct. 2	414	106 107 108	45	85
Boxes. Manufacturing .....	F. A. Jones .....	386,074	July 10	1080	290	44	221
Boxes. Wire fastener for .....	J. Esselbach .....	381,684	Apr. 24	2078	543	43	440
Brace:							
<i>See</i> Bedstead-brace. Saw-brace.							
Bit-brace. Shoulder-brace.							
Drill-brace. Trunk-brace.							
Eaves-trough brace. Wagon-spring brace.							
Rail-brace.							
Brace and bit .....	I. Holliday .....	386,319	July 17	1455	385	44	297
Brace for holding bits or other tools .....	J. T. Pedersen .....	392,062	Oct. 30	2657	722	45	551
Bracelet .....	S. Cottle .....	391,883	Oct. 30	2391	648	45	500
Bracelet .....	A. Johnstone .....	395,148	Dec. 25	2212	568	45	1525
Bracelet and button-hook. Combined .....	A. Johnstone .....	393,239	Nov. 20	1548	405	45	911

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Bracelet-chain.....	G. A. Lenau .....	385,313	June 26	2220	569	43	1575
Bracket:							
See Clapboard-bracket. Gas-bracket.							
Coffin-bracket. Harness-bracket.							
Curtain-pole-bracket. Lamp-bracket.							
Curtain-roller Scaffold-bracket.							
bracket. Window-shade bracket.							
Bracket.....	H. M. Humphrey .....	386,248	July 17	1359	358	44	279
Bracket.....	H. P. Kochsmeier .....	381,389	Apr. 17	1641	436	43	336
Bracket.....	T. Koehler .....	390,302	Oct. 2	139	39	45	31
Bracket attachment. Shade.....	G. S. Pearson .....	391,187	Oct. 16	1416	378	45	288
Bracket for window-sills, &c.....	E. C. Himmele and A. H. Holt .....	389,224	Sept. 11	647	166	44	1202
Bracket or support for shelves, desks, and tables.....	C. Eggelston .....	382,296	May 8	625	{ 159 160 }	{ 43 43 }	639
Braid.....	J. McCabey .....	377,320	Jan. 31	2314	671	42	473
Braiding-machine.....	M. H. Fouillet-Chevance .....	395,270	Dec. 25	2404	{ 616 617 }	{ 45 45 }	1560
Braiding-machine.....	A. S. Hood .....	387,075	July 31	2585	681	44	534
Braiding-machine.....	J. McCabey .....	385,364	July 3	40	12, 13	44	10
Braiding-machine.....	F. L. Veerkamp, C. F. Leopold, and } W. Darker. }	391,929	Oct. 30	2460	{ 664 665 }	{ 45 45 }	513
Brake:							
See Air-brake. Pressure-brake.							
Car-brake. Railway-brake.							
Carriage-brake. Safety-brake.							
Cornice-brake. Sled-brake.							
Electro-magnetic Steam-brake.							
brake. Vehicle-brake.							
Elevator-brake. Velocipede-brake.							
Engine-brake. Wagon-brake.							
Lock-brake. Windmill-brake.							
Locomotive-brake.							
Brake.....	E. E. Soyder .....	390,316	Oct. 2	159	44	45	35
Brake and belt shifter.....	J. F. W. Dorman .....	380,253	Mar. 27	2061	551	42	1386
Brake-block.....	G. A. Posson .....	378,215	Feb. 21	1302	345	42	768
Brake-block.....	P. P. Kickenbacher .....	392,284	Nov. 13	1041	269	45	804
Brake-handle.....	B. L. Wright .....	391,004	Oct. 9	1149	303	45	230
Brake head and shoe.....	T. A. Griffin .....	376,523	Jan. 17	1134	296	42	232
Brake-lever.....	T. Dilger .....	384,027	June 5	276	77	43	1174
Brake-lever.....	J. W. McPherson .....	379,969	Mar. 27	1658	442	42	1306
Brake-lock.....	A. Hansen .....	381,010	Apr. 10	1072	284	43	216
Brake mechanism. Fluid-pressure automatic.	G. B. Williams .....	386,514	July 24	1750	463	44	367
Brake mechanism. Fluid-pressure automatic.	G. B. Williams .....	393,872	Dec. 4	208	56	45	1111
Brake-shoe.....	P. Browley .....	385,659	July 3	487	126	44	95
Brake-shoe.....	F. L. Sheppard .....	385,966	July 10	932	246	44	190
Brake-shoe.....	J. A. Smithbliser .....	390,914	Oct. 9	1002	262	45	202
Brakes. Slack-adjuster for.....	O. C. Crane .....	381,828	Apr. 24	2296	597	43	481
Bran-remover.....	G. W. H. Safely .....	384,719	June 19	1318	344	43	1388
Branding corks, &c. Machine for.....	F. W. A. Boldt .....	377,665	Feb. 7	475	{ 121 122 }	{ 42 42 }	585
Branding implement. Continuous-heating.....	M. Potter .....	377,575	Feb. 7	331	85	42	559
Branding-tool.....	G. E. Pettett .....	392,360	Nov. 6	272	70	45	646
Bread.....	S. Preston .....	393,923	Dec. 4	279	.....	45	1125
Bread, cake, or cheese box.....	S. E. Bowersock .....	381,824	Apr. 24	2291	596	43	480
Bread-machine.....	B. Bitterman and L. H. Bernstein .....	383,938	June 5	147	43	43	1149
Bread-making machine.....	A. A. Humble .....	381,554	Apr. 21	1889	{ 498 499 }	{ 43 43 }	402
Bread. Preparation of.....	J. Robertson .....	379,727	Mar. 20	1271	.....	42	1223
Breaker and crusher.....	F. L. Preston .....	383,886	June 5	216	64, 65	43	1162
Breast-drill.....	J. Sangster .....	391,391	Oct. 16	1700	450	45	341
Breast-strap.....	A. J. Stewart .....	391,722	Oct. 23	2147	580	45	441
Breastpin.....	A. Young, Jr. ....	393,413	Nov. 27	1805	477	45	969
Breastpin safety-catch.....	J. Johnson .....	378,054	Feb. 14	1063	278	42	714
Bretzel or cracker sizing and salting machine.	D. R. and W. A. King .....	393,474	Nov. 27	1969	409	45	988
Bretzel or cracker sizing and salting machine.	D. R. and W. A. King .....	393,475	Nov. 27	1911	500	45	988
Brewer's grains. Conveyor for.....	E. G. W. Woerz .....	384,455	Apr. 17	1744	466	43	355
Brewing. Apparatus for preparing yeast for use in.	N. Bradley .....	391,775	Oct. 30	2219	601	45	466
Brick, &c.....	R. and C. Steinau .....	379,338	Mar. 13	687	186	42	1102
Brick and marking thereon the grade or color thereof.	J. C. Anderson .....	382,503	May 8	947	240	43	699
Apparatus for gaging.....							
Brick and tile machine.....	F. E. Frey .....	391,697	Oct. 23	2107	571	45	434
Brick and tile machine.....	F. E. Frey .....	391,698	Oct. 23	2112	572	45	434
Brick and tile machines. Lubricating-die for.	R. Niedergesaess .....	385,317	June 26	2227	570	43	1576
Brick. Apparatus for handling.....	E. Aber .....	375,911	Jan. 3	244	66	42	51
Brick. Burning.....	J. C. Anderson .....	379,041	Mar. 6	264	{ 75 76 77 }	{ 42 42 42 }	1015
Brick-cleaning machine.....	J. H. Williams .....	388,939	Sept. 4	199	53	44	1110
Brick cutting and sanding machine.....	P. G. Zouck .....	385,398	July 3	89	25	44	19
Brick-drier.....	W. E. Cole .....	378,236	Feb. 21	1351	356	42	776
Brick-drier.....	W. E. Cole .....	378,237	Feb. 21	1351	356	42	776
Brick-drying tunnel.....	E. V. Johnson .....	381,383	Apr. 17	1631	{ 434 435 }	{ 43 43 }	334
Brick for chimneys.....	G. A. Keck .....	375,753	Jan. 3	47	14	42	13
Brick for transportation to market. Preparing.....	J. C. Anderson .....	389,043	Sept. 4	343	90	41	1137
Brick-kiln.....	W. and S. H. Alsip .....	383,936	June 5	141	{ 40 41 42 }	{ 43 43 43 }	1148
Brick-kiln.....	J. C. Anderson .....	379,040	Mar. 6	262	74, 75	42	1015
Brick-kiln.....	J. C. Anderson .....	379,923	Mar. 27	1595	{ 421 422 }	{ 42 42 }	1295
Brick-kiln.....	J. C. Anderson .....	379,924	Mar. 27	1597	{ 422 423 }	{ 42 42 }	1295

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Brick-kiln .....	J. C. Anderson .....	379,927	Mar. 27	1601	{ 424 425 60	42	1296
Brick-kiln .....	J. Bühler .....	377,511	Feb. 7	250	{ 61 62 63	42	542
Brick-kiln .....	J. B. Grawcock .....	386,813	July 31	2182	{ 575 564	44	458
Brick-kiln .....	W. L. Gregg .....	393,641	Nov. 27	2158	{ 565 536 527	45	1040
Brick-kiln .....	G. W. Sharer .....	385,209	June 26	2053	{ 527 43	43	1542
Brick-kiln .....	E. Stair .....	375,838	Jan. 3	153	{ 43	42	34
Brick-kiln. Continuous .....	M. A. T. Boehncke .....	392,985	Nov. 20	1200	{ 312	45	841
Brick-kiln. Continuous .....	M. A. T. Boehncke and H. Rohwer .....	392,984	Nov. 20	1198	{ 311	45	841
Brick, &c. Kiln for burning .....	J. C. Anderson .....	379,925	Mar. 27	1599	{ 423	42	1295
Brick-kiln frame .....	E. M. Pike, J. Castle, and J. B. Schopp .....	384,469	June 12	930	{ 242	43	1306
Brick-kiln. Perpetual .....	F. B. Graves .....	391,042	Oct. 16	1218	{ 323	45	250
Brick-kilns. Hydraulic apparatus for operating perpetual .....	F. B. Graves .....	372,511	Nov. 6	489	{ 123	45	638
Brick-machine .....	J. C. Anderson .....	378,538	Feb. 28	1787	{ 472	42	869
Brick-machine .....	G. Campbell .....	395,212	Dec. 25	2312	{ 593	45	1542
Brick-machine .....	W. Dengolesky .....	381,345	Apr. 17	1576	{ 423	43	324
Brick-machine .....	W. L. Grogg .....	385,614	July 3	424	{ 108 109	44	83
Brick-machine .....	G. Haut .....	394,979	Dec. 25	1953	{ 503	45	1476
Brick-machine .....	H. Krutzsch .....	393,246	Nov. 20	1558	{ 408 409 602	45	913
Brick-machine .....	J. J. Kulage .....	383,399	May 22	2266	{ 603	43	973
Brick-machine .....	H. W. Mead .....	386,333	July 17	1469	{ 389	44	300
Brick-machine .....	R. N. Ross .....	377,778	Feb. 14	675	{ 169 170	42	639
Brick-machine .....	R. N. Ross and H. H. Keller .....	394,510	Dec. 11	1143	{ 296 297	45	1297
Brick-machine .....	P. L. Simpson .....	384,872	June 19	1549	{ 402 403	43	1431
Brick-machine .....	W. H. Stewart .....	376,759	Jan. 24	1493	{ 394	42	309
Brick-machine .....	W. E. Tallcôt .....	389,338	Sept. 11	819	{ 209 210	44	1236
Brick-machine .....	R. A. Willett .....	390,110	Sept. 25	1992	{ 530 531	44	1478
Brick-machine .....	B. J. Wilson and A. A. Wood .....	376,460	Jan. 17	1042	{ 273	42	214
Brick-machine. Hydraulic .....	H. Von Metzlaß .....	394,528	Dec. 11	1174	{ 305 306	45	1303
Brick-machine. Reciprocating .....	J. P. Miller .....	377,767	Feb. 14	658	{ 165	42	636
Brick-machine. Reciprocating .....	W. S. and J. M. Smith .....	389,334	Sept. 11	813	{ 207 208	44	1235
Brick-machine. Rotary .....	F. C. Burrell .....	393,206	Nov. 20	1503	{ 393	45	902
Brick-machines. Belt-tightener for .....	C. Chambers, Jr .....	386,297	July 17	1427	{ 377	44	292
Brick-machines. Cut-off table for .....	J. Fergusson .....	392,952	Nov. 13	1135	{ 295	45	821
Brick-machines. Device for breaking up the laminations of the clay in screw .....	C. D. McClellan .....	390,879	Oct. 9	947	{ 250	45	192
Brick. Manufacturing .....	J. F. Clark .....	382,866	May 15	1465	{ 384	43	811
Brick. Manufacturing .....	W. L. Gregg .....	385,615	July 3	427	{ 110	44	83
Brick masonry .....	F. W. Gordon .....	385,804	July 10	706	{ 183	44	145
Brick-mold .....	J. Grant .....	385,552	July 3	328	{ 85	44	66
Brick-mold sander .....	A. Naylor. (Reissue) .....	10,976	Dec. 25	2448	{ 630	45	1568
Brick-mold-sanding machine .....	J. A. Buck .....	385,790	July 10	684	{ 179	44	142
Brick or tile for building purposes .....	W. J. Pringle .....	381,987	June 5	218	{ 65	43	1163
Brick. Pallet for drying .....	C. T. Fitch .....	387,405	Aug. 7	304	{ 78	44	631
Brick-press .....	C. F. Stout .....	393,128	Nov. 20	1387	{ 362	45	878
Brick-sanding machine .....	J. I. Knapp, J. C. McKenzie, and W. Humphrey .....	376,316	Jan. 10	836	{ 220	42	169
Brick-setting .....	W. V. Cecil .....	388,827	Sept. 4	28	{ 9	44	1077
Bricks. Machine for elevating and delivering .....	C. H. Eichler .....	394,842	Dec. 18	1719	{ 446	45	1423
Bricks with relation to their color and grade. Assorting .....	J. C. Anderson .....	382,504	May 8	949	{ 240	43	700
Bridge .....	L. Barnes .....	392,094	Oct. 30	2718	{ 738 211 212	45	564
Bridge .....	T. D. Brochocki .....	377,887	Feb. 14	827	{ 211 212	42	667
Bridge .....	S. A. Buchanan .....	389,951	Sept. 25	1752	{ 464	44	1429
Bridge .....	D. M. Eddy .....	389,694	Sept. 18	1370	{ 359	44	1345
Bridge .....	W. Harman .....	383,880	June 5	42	{ 14, 15	43	1129
Bridge .....	R. A. Sawyer .....	381,584	Apr. 24	1929	{ 508 509	43	410
Bridge. Arch .....	J. B. Ellis .....	391,463	Oct. 23	1800	{ 482	45	369
Bridge-bars. Die for upsetting .....	F. H. Smith .....	389,115	Sept. 4	475	{ 122	44	1161
Bridge-bars. Manufacture of .....	S. W. Lerch .....	380,210	Mar. 27	2003	{ 536	42	1374
Bridge-bars. Upsetting .....	F. H. Smith .....	387,824	Aug. 14	938	{ 243	44	760
Bridge-cables. Suspender-connection for .....	G. Lindenthal .....	378,697	Feb. 28	2020	{ 534	42	914
Bridge-connection truss .....	H. S. Hopkins .....	393,433	Nov. 27	1832	{ 482 483	45	974
Bridge. Draw .....	O. F. Balston .....	376,295	Jan. 10	713	{ 189 190	42	146
Bridge. Draw .....	W. J. Briggs .....	387,708	Aug. 14	776	{ 198 199	44	727
Bridge. Draw .....	W. J. Briggs .....	387,852	Aug. 14	978	{ 255	44	767
Bridge. Draw .....	R. A. Sawyer .....	389,980	Sept. 25	1794	{ 476	44	1437
Bridge-gate .....	H. R. Karstens .....	389,086	Sept. 4	406	{ 107	44	1150
Bridge-gate .....	M. Myré and C. Christofferson .....	386,154	July 17	1210	{ 322	44	252
Bridge-gate. Draw .....	D. Greenhoot .....	377,807	Feb. 14	723	{ 183	42	647
Bridge-gate. Draw .....	A. L. Peirce .....	386,491	July 24	1709	{ 452	44	360



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Bridge-gate. Safety.....	F. J. Coddington and M. Popp.....	388,833	Sept. 4	35	11	44	1079
Bridge-gate. Swinging.....	C. Ross.....	390,621	Oct. 2	585	155	45	117
Bridge-guard.....	W. C. Newman.....	389,714	Sept. 18	1401	366	44	1352
Bridge. Metallic.....	M. L. E. Duval.....	384,196	June 5	525	{ 142 143 144 }	43	1223
Bridge. Metallic.....	M. L. E. Duval.....	381,197	June 5	529	144	43	1224
Bridge. Suspension.....	E. E. Ranyon.....	394,940	Dec. 18	1281	{ 486 487 }	45	1453
Bridge. Swing.....	C. W. Martin.....	380,906	Apr. 10	909	244	43	186
Bridge. Truss.....	W. M. Parker.....	394,877	Dec. 18	1771	460	45	1433
Bridge. Truss.....	H. W. Ramsay.....	381,168	Apr. 17	1324	353	43	274
Bridges. Cable for suspension.....	G. Lindenthal.....	378,696	Feb. 28	2019	533	42	914
Bridges. Cable system for draw.....	J. E. Boegen and C. A. Tepoorten.....	385,743	July 10	617	161	44	128
Bridges. Connection for end posts and bottom chords of.....	S. A. Buchanan.....	387,139	July 31	2691	705	44	551
Bridges. Construction of draw.....	M. J. L. Towler.....	376,972	Jan. 24	1807	476	42	368
Bridges. Danger-signal for.....	M. O. Godding.....	384,755	June 19	1365	357	43	1397
Bridges. Safety-guard for railway.....	J. E. Childs.....	388,122	Aug. 21	1441	386	44	863
Bridle.....	E. Crippen and W. King.....	379,005	Mar. 6	212	57	42	1007
Bridle.....	B. L. E. Gowen.....	389,701	Sept. 18	1380	361	44	1348
Bridle and halter. Combined.....	J. O. Walton.....	384,407	June 12	851	221	43	1291
Bridle attachment.....	N. Edwards.....	393,695	Nov. 27	2241	588	45	1057
Bridle attachment.....	A. Geenen.....	383,176	May 22	1941	509	43	914
Bridle attachment.....	C. S. Shue.....	381,285	Apr. 17	1455	400	43	305
Bridle-bit.....	T. Brabson.....	394,453	Dec. 11	1063	276	45	1283
Bridle-bit.....	T. Brabson.....	394,454	Dec. 11	1063	276	45	1283
Bridle-bit.....	R. O. Burgess.....	377,845	Feb. 14	770	197	42	656
Bridle-bit.....	E. K. Cahoon.....	390,567	Oct. 2	523	137	45	105
Bridle-bit.....	H. W. Campbell.....	387,048	July 31	2540	668	44	526
Bridle-bit.....	C. L. Edwards.....	392,998	Nov. 20	1216	316	45	844
Bridle-bit.....	O. R. Gleason.....	378,305	Feb. 21	1450	378	42	793
Bridle-bit.....	A. H. Hanscom.....	376,088	Jan. 10	510	137	42	109
Bridle-bit.....	A. W. Helms.....	389,809	Sept. 18	1529	405	44	1379
Bridle-bit.....	J. Morrissey.....	378,970	Mar. 6	152	44	42	996
Bridle-bit die and making bridle-bits.....	J. Stanley.....	382,276	May 1	583	{ 147 148 }	43	621
Bridle-bit. Overcheck.....	C. Davis.....	388,268	Aug. 21	1667	446	44	909
Bridle-blinder.....	A. Pearl.....	394,389	Dec. 11	976	257	45	1268
Bridle-swivel.....	H. Johnson.....	379,537	Mar. 13	922	264	42	1159
Bridle-winker attachment.....	E. B. Knapp.....	377,563	Feb. 7	319	82	42	556
Bridle-winker. Molded.....	L. S. Hoyt.....	376,742	Jan. 24	1469	388	42	305
Bridles. Blinder-loop for.....	T. A. Prambus.....	393,658	Nov. 27	2187	573	45	1015
Bridles. Check-piece for.....	O. Botsford.....	385,090	June 26	1881	480	43	1507
Bridles. Overdraw check-loop for.....	N. B. Le Blood.....	377,944	Feb. 14	918	237	42	687
Bridles. Rosette attachment for.....	J. C. Harpham.....	383,122	May 22	1868	488	43	899
Brine. Apparatus for making.....	C. B. Wiser.....	380,378	Apr. 3	111	32	43	24
Broach.....	G. Thompson.....	394,226	Dec. 11	726	192	45	1218
Broiler.....	W. Vogel.....	387,609	Aug. 7	631	164	44	694
Brooches. Safety-pin for.....	J. Friedberger.....	386,194	July 17	1261	336	44	262
Brooder. Chicken.....	J. D. Winger.....	389,428	Sept. 11	952	249	44	1262
Brooder. Poultry.....	G. S. Singer.....	381,960	May 1	87	21	43	531
Broom.....	R. D. Gallagher.....	386,310	July 17	1443	382	41	295
Broom.....	F. S. Stark.....	394,410	Dec. 11	1004	263	45	1273
Broom-bridle.....	H. Moore.....	394,658	Dec. 18	1402	365	45	1359
Broom-clasp.....	M. C. Eichhorn.....	392,791	Nov. 13	916	234	45	777
Broom-head.....	G. H. Kimbler.....	389,657	Sept. 18	1317	344	44	1335
Broom-head.....	W. W. Thompson.....	385,217	June 26	2062	529	43	1544
Broom-holder.....	E. Gash.....	380,320	Apr. 3	19	5	43	6
Broom-holder.....	C. F. Lansing.....	379,961	Mar. 27	1649	439	42	1304
Broom holder or support.....	B. Schad.....	391,429	Oct. 23	1752	469	45	359
Broom or brush bridle.....	R. E. Copson.....	390,005	Sept. 25	1830	485	44	1444
Broom. Whisk.....	M. C. Howard.....	391,796	Oct. 30	2269	614	45	476
Brooms, &c. Holder for.....	H. H. Engelman and J. H. Kiser.....	394,064	Dec. 4	483	129	45	1164
Brush.....	J. J. Ashburner.....	381,749	Apr. 24	2169	567	43	457
Brush.....	H. Berry.....	381,206	Apr. 17	1372	367	43	283
Brush.....	R. Cahill.....	391,687	Oct. 23	2096	568	45	431
Brush.....	R. Foster and B. J. Kennedy.....	378,784	Feb. 28	2133	564	42	935
Brush.....	R. W. Hiff.....	388,137	Aug. 21	1459	391	44	867
Brush.....	L. Strickel.....	390,715	Oct. 9	720	190	45	151
Brush.....	W. Unger.....	377,180	Jan. 31	2103	554	42	434
Brush.....	P. Wagner.....	383,506	May 29	2444	648	43	1013
Brush and roller combined. Paper-hanger's.....	W. H. Jack.....	387,562	Aug. 7	560	146	44	680
Brush and towel operating mechanism. Bath.....	J. Mayer.....	391,325	Oct. 16	1605	425	45	324
Brush attachment for machines for uniling knit fabrics.....	N. H. Bruce.....	392,005	Oct. 30	2573	699	45	535
Brush. Blacking.....	W. N. Baker.....	383,684	May 29	2689	711	43	1065
Brush. Blacking.....	J. H. Beauregard and W. F. Bidwell.....	384,607	Apr. 24	1973	518	43	419
Brush. Blacking.....	A. R. Gustafson.....	376,879	Jan. 24	1690	441	42	345
Brush. Blacking.....	J. L. Spalding.....	391,491	Oct. 23	1841	492	45	378
Brush-bodies. Machine for boring.....	J. V. Gane.....	378,131	Feb. 21	1153	309	42	745
Brush bridle. Paint.....	A. B. Kistler.....	380,120	Mar. 27	1884	501	42	1350
Brush. Ceiling.....	J. W. Boyle.....	375,919	Jan. 3	255	69	42	53
Brush. Dusting.....	J. Stewart.....	377,582	Feb. 7	343	88	42	561
Brush. Electrical revolving.....	E. Thayer.....	393,192	Nov. 20	1481	386	45	896
Brush. Flesh.....	E. M. Ryan.....	390,142	Sept. 25	2035	542	44	1487
Brush. Flexible-back horse.....	W. J. Scott.....	389,531	Sept. 11	1098	291	44	1288
Brush for muckilage and other liquids. Fountain.....	A. C. Harrington.....	379,463	Mar. 13	873	235	42	1138
Brush for washing tumblers, &c. Revolving.....	J. M. Mungriven.....	387,728	Aug. 14	810	209	44	734
Brush. Fontaine.....	J. A. Pearce.....	380,345	Apr. 3	53	18	43	13
Brush-heads. Machine for boring.....	A. C. Estabrook.....	390,956	Oct. 9	1058	{ 279 280 }	45	214
Brush-holder.....	H. H. Sawtelle.....	391,083	Oct. 16	1275	339	45	261
Brush-making.....	E. I. Miller.....	391,378	Oct. 16	1683	445	45	338

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Brush-making machine	J. V. Gane	378,132	Feb. 21	1185	310	42	745
Brush. Marking	S. S. Harman	391,964	Oct. 30	2512	680	45	523
Brush. Nail	G. H. Coursen	380,476	Apr. 3	250	69	43	51
Brush. Paint	J. McQuide	376,540	Jan. 17	1153	303	42	236
Brush. Pocket tooth	A. F. Bouton and K. K. Stearns	380,080	Mar. 27	1829	487	42	1339
Brush. Rubber	J. P. Hoyt	376,385	Jan. 10	927	243	42	186
Brush. Scratch	H. R. Frisbie	376,800	Jan. 24	1570	412	42	323
Brush. Scrubbing	T. H. Saunders	393,522	Nov. 27	1982	518	45	1005
Brush. Shoe and other	R. Nicol, Jr.	384,462	June 12	924	240	43	1305
Brushes, &c. Apparatus for inserting and fixing the bristles of	J. V. Gane	378,130	Feb. 21	1175	308	42	744
Brushes. Bridle for paint	R. W. Iliff	392,338	Nov. 6	238	61	45	639
Brushes. Drip-cup for whitewash or paint	A. Williams	380,005	Mar. 27	1720	460	42	1318
Brushes. Handle for mucilage	C. Rowland	376,397	Jan. 10	940	246	42	188
Brushes. Manufacturing so-called chisel	O. Fish	392,420	Nov. 6	359	89	45	662
Buckboard	H. L. Sweet	394,519	Dec. 11	1158	301	45	1300
Bucket and truck. Combined freight	L. A. De Mayo	385,849	July 10	773	204	44	157
Bucket. Conveyer	F. A. Lockwood	387,649	Aug. 14	690	178	44	711
Bucket cover. Sap	H. Walcott	380,958	Apr. 10	991	262	43	202
Bucket cover. Sap	H. Walcott	390,728	Oct. 9	738	193	45	154
Bucket. Feed	A. M. Smith	387,831	Aug. 14	934	242	44	759
Bucket. Mud	J. R. Hall	386,537	July 24	1790	473	44	374
Bucket. Well	J. L. Van Hook	388,747	Aug. 28	2355	635	44	1046
Buckets. Constructing metal	W. P. Cragin	393,144	Nov. 20	1410	368	45	882
Buckle	C. H. Anderson	393,736	Dec. 4	2	1	45	1073
Buckle	G. Bradshaw	386,293	July 17	1419	374	44	291
Buckle	J. Caiu	385,591	July 3	386	100	44	77
Buckle	N. Clement	383,102	May 22	1837	481	43	893
Buckle	E. Crippen and W. King	379,006	Mar. 6	912	57	42	1007
Buckle	G. F. Eberhard	382,516	May 8	965	244	43	703
Buckle	G. F. Eberhard	382,594	May 8	1064	281	43	729
Buckle	J. England	378,667	Feb. 28	1978	524	42	906
Buckle	T. C. Field	376,240	Jan. 10	729	194	42	150
Buckle	F. C. Hall	383,121	May 22	1868	488	43	899
Buckle	C. R. Harris	376,193	Jan. 10	663	177	42	137
Buckle	F. W. Hoffmann	387,881	Aug. 14	1024	269	44	776
Buckle	J. C. Hyde	379,515	Mar. 13	955	257	42	1154
Buckle	C. Kromberg	386,075	July 10	1081	291	44	221
Buckle	T. A. Lee	380,209	Mar. 27	2002	535	42	1374
Buckle	A. J. McCord	392,962	Nov. 13	1151	299	45	824
Buckle	W. A. Meyer	389,710	Sept. 18	1395	365	44	1350
Buckle	J. F. Molloy	383,753	May 29	2800	736	43	1086
Buckle	W. F. Osborne	391,332	Oct. 16	1613	427	45	325
Buckle	E. N. Parker	379,078	Mar. 6	315	92	42	1025
Buckle	T. O. Potter	386,158	July 17	1214	321	41	253
Buckle	A. Prym	378,555	Feb. 28	1815	479	42	874
Buckle	M. Rubin	394,014	Dec. 4	406	109	45	1149
Buckle	G. E. Schellinger	393,668	Nov. 27	2202	577	45	1049
Buckle	S. Schuer	389,252	Sept. 11	698	178	41	1213
Buckle	D. L. Smith	378,730	Feb. 28	2061	544	42	921
Buckle	D. L. Smith	378,731	Feb. 28	2062	544	42	921
Buckle	D. L. Smith	378,732	Feb. 28	2063	544	42	921
Buckle	D. L. Smith	378,733	Feb. 28	2064	544	42	922
Buckle	D. L. Smith	378,734	Feb. 28	2065	545	42	922
Buckle	D. L. Smith	383,498	May 29	2432	646	43	1011
Buckle	D. L. Smith	385,578	July 3	369	96	41	74
Buckle	E. A. Smith	376,267	Jan. 10	768	204	42	157
Buckle	E. A. Smith	376,921	Jan. 24	1742	458	42	355
Buckle	E. A. Smith	384,936	June 19	1631	423	43	1447
Buckle	A. J. Stewart	391,764	Oct. 23	2203	595	45	453
Buckle	L. C. Voorhees	386,944	July 31	2400	631	44	408
Buckle	A. P. Waddell	377,656	Feb. 7	464	118	42	582
Buckle	E. H. Wheeler	381,973	May 1	112	27	43	535
Buckle	E. H. Wheeler	385,651	July 3	479	124	44	93
Buckle	H. C. Whitmarsh	378,991	Mar. 6	190	52	42	1003
Buckle	W. W. Youmans	393,090	Nov. 20	1338	349	45	868
Buckle and hame-tug attachment	W. Dippert	379,530	Mar. 13	970	262	42	1157
Buckle and spring-hook. Combined	W. James	382,164	May 1	419	110	43	590
Buckle and trace-carrier. Combined back-band	W. H. Hayden, Jr.	389,808	Sept. 18	1528	404	44	1379
Buckle and trace-carrier. Combined back-band	S. H. Toles	383,782	May 29	2855	751	43	1096
Buckle. Back-band	R. T. Semmes	385,206	June 26	2049	523	43	1541
Buckle. Belt	M. Rubin	394,013	Dec. 4	405	109	45	1149
Buckle. Double-loop	J. C. Hackett	385,618	July 3	433	112	44	84
Buckle-frame	G. R. Kelsey	376,599	Jan. 17	1235	325	42	252
Buckle-frames. Manufacture of	G. R. Kelsey	384,449	June 12	909	237	43	1302
Buckle-guard	B. F. Dennis	392,986	Nov. 20	1215	316	45	844
Buckle. Harness	J. A. Hollenberger	386,070	July 10	1074	287	44	220
Buckle. Harness	J. M. Smith	379,613	Mar. 20	1105	293	42	1189
Buckle or clasp	W. Gries	383,290	May 22	2112	557	43	946
Buckle or clasp	I. G. W. Hopkins and H. H. Cummings	376,055	Jan. 3	461	124	42	93
Buckle or clasp for suspenders, &c	P. Frantzeu	389,960	Sept. 25	1763	468	44	1432
Buckle. Safety	J. G. Kitchell	384,984	June 26	1704	442	43	1471
Buckle-shield. Elastic	G. O. Simmons	382,244	May 1	535	136	43	612
Buckle. Suspender	A. F. R. Arndt	390,432	Oct. 2	328	86	45	69
Buckle. Suspender	J. T. Budd	390,280	Oct. 2	111	31	45	25
Buckle. Suspender	W. Lorb and J. Haak	377,627	Feb. 7	415	105	42	574
Buckle. Suspender	C. A. Mann	388,892	Sept. 4	129	35	44	1097
Buckle. Suspender	W. E. Smith	392,293	Nov. 6	167	44	45	625
Buckle. Suspender	C. Voorhis	382,199	May 1	468	120	43	599
Buckle. Suspender	C. F. Walters	387,465	Aug. 7	395	102	44	650
Buckle. Suspender	W. J. Walters	381,300	Apr. 17	1501	405	43	308

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page
Buckle. Trace.....	J. F. Bartlett.....	394,671	Dec. 18	1426	372	45	1364
Buckle. Trace.....	B. C. Smith.....	385,146	June 26	1962	502	43	1523
Buckle. Tug.....	J. T. Merritt.....	391,545	Oct. 23	1913	514	45	493
Buckle. Tug.....	H. C. and L. C. Minard.....	382,545	May 8	1014	270	43	712
Buckle. Turn.....	C. H. Williams.....	378,544	Feb. 28	1783	470	42	868
Buckles. Fastening attachment for.....	G. W. Hayman.....	394,072	Dec. 4	491	131	45	1165
Buckles. Loop for suspender.....	D. L. Smith.....	382,494	May 8	933	236	43	696
Buckles. Spring-hook for suspender.....	C. Voorhis.....	387,329	Aug. 7	194	50	44	698
Bucksaw-brace.....	W. Hankin, Sr.....	380,567	Apr. 3	395	113	43	81
Bucksaw-frame.....	C. Eisenhardt.....	394,477	Dec. 11	1096	284	45	1289
Bucksaw-frame.....	L. H. Roberts and C. E. Sanford.....	395,294	Dec. 25	2438	627	45	1566
Bucksaw-frame.....	J. W. Thompson.....	390,416	Oct. 2	306	81	45	65
Buffer for housekeeping.....	A. L. Dey.....	383,871	June 5	31	10	43	1127
Buffing apparatus.....	G. Westinghouse, Jr.....	391,997	Oct. 30	2557	693 694 695	45	532
Buffing-machine.....	E. B. Allen.....	392,707	Nov. 13	778	197	45	751
Buffing-machine.....	T. E. Keavy.....	382,041	May 1	250	64, 65	43	559
Buggies. Auxiliary seat for.....	E. H. Turner.....	393,129	Nov. 20	1389	363	45	878
Buggies. Drop-reach for.....	R. H. Munro.....	389,821	Sept. 18	1542	408	44	1381
Buggies. Dust-cover for.....	A. Barth.....	391,396	Oct. 23	1709	455	45	351
Buggy-body.....	N. Kastler.....	392,808	Nov. 13	943	241	45	783
Buggy-boot.....	P. M. Barnes.....	391,009	Oct. 16	1158	307	45	239
Buggy-boot.....	J. J. and C. A. Behlen.....	379,043	Mar. 6	268	77	42	1016
Buggy-boot.....	P. Bosche.....	382,349	May 8	713	180	43	654
Buggy-boot.....	J. A. Mansfield.....	387,429	Aug. 7	336	86	44	637
Buggy-boot.....	G. Monteith.....	393,780	Dec. 4	66	19	45	1085
Buggy-boot.....	F. Senieur.....	386,660	July 24	1955	516	44	407
Buggy-curtain fastener, &c.....	B. R. Davenport.....	394,758	Dec. 18	1561	408	45	1393
Buggy-prop. Top.....	I. Bateman.....	382,584	May 8	1078	277	43	726
Buggy-seat.....	D. B. Murray.....	375,888	Jan. 3	214	50	42	46
Buggy-top.....	C. A. Behlen.....	375,861	Jan. 3	175	49	42	39
Buggy-top.....	W. Davis.....	377,604	Feb. 7	382	97	42	568
Buggy-top.....	L. E. Duvall.....	389,957	Sept. 25	1761	467	44	1432
Buggy-top.....	F. Hill.....	389,222	Sept. 11	645	165	44	1202
Buggy-top.....	J. D. Reed.....	379,493	Mar. 13	918	246	42	1146
Buggy-top.....	W. H. Rees and J. H. Matthews.....	376,012	Jan. 3	398	105	42	80
Buggy-top.....	O. Slagle.....	379,546	Mar. 13	994	267	42	1161
Buggy-top.....	G. Wiggins.....	378,485	Feb. 28	1715	453	42	854
Buggy-top. Folding.....	W. G. Miller.....	388,061	Aug. 21	1316	356	44	841
Bugs. Cultivator attachment for gathering potato.....	J. Hunt.....	387,730	Aug. 14	799	205	44	732
Bugs. Machine for destroying potato.....	W. Hooey and J. W. Bailey.....	383,294	May 22	2116	558	43	947
Building-block.....	H. S. Paluer.....	384,541	June 12	1050	274	43	1328
Building-block.....	J. R. Weith.....	379,429	Mar. 13	821	221	42	1128
Building block or brick. Hollow.....	J. Lee.....	390,175	Sept. 25	2092	557	44	1498
Building blocks, tiles, bricks, &c. Composition for the manufacture of.....	G. S. Lee.....	392,615	Nov. 13	653	.....	45	726
Building construction. Iron.....	L. S. Buffington.....	383,170	May 22	1931	505 506	43	911
Building material for architectural purposes. Composition of.....	C. Straub.....	392,528	Nov. 6	515	.....	45	693
Building material for architectural purposes. Composition of.....	C. Straub.....	394,518	Dec. 11	1157	.....	45	1300
Buildings. Construction and decoration of.....	S. D. Hatch.....	376,280	Jan. 10	920	241	42	185
Buildings. Construction of.....	M. H. Eaton.....	381,767	Apr. 24	2191	573	43	462
Buildings. Construction of.....	A. Smith.....	378,627	Feb. 28	1916	507	42	894
Buildings. Construction of fire-proof iron.....	E. J. Weston.....	390,732	Oct. 9	744	195	45	155
Buildings. Cooling and ventilating.....	L. L. Battle.....	393,137	Nov. 20	1399	366	45	880
Buildings from without. Apparatus for the inspection of.....	E. A. Trapp.....	388,934	Sept. 4	192	51	44	1109
Buildings. Heating and ventilating.....	W. N. Heaton.....	387,661	Aug. 14	738	189	44	721
Buildings. System of warming and ventilating.....	G. B. Morrison.....	377,496	Feb. 7	222	53, 54	42	538
Buildings. Water-proof structure in.....	F. T. Whalen.....	389,914	Sept. 25	1707	472	44	1420
Bullet.....	F. P. Langbitt.....	388,496	Aug. 28	2001	538	44	978
Bulletin-board.....	L. J. De Land.....	381,342	Apr. 17	1572	422	43	323
Bulletin. Electrical.....	P. B. Delany.....	386,189	July 17	1253	334 335	44	261
Bullion from slag, mattes, and speiss. Apparatus for separating base.....	W. B. Devereux.....	381,119	Apr. 17	1259	337	43	262
Bundle-carrier.....	H. W. Vietmeyer.....	386,171	July 17	1229	328 329	44	256
Bung.....	J. H. Sherwood.....	381,436	Apr. 17	1711	458	43	351
Bung and air-vent.....	A. Pape.....	381,081	Apr. 10	1197	320	43	240
Bung-bushing.....	R. Pentlarge.....	384,387	June 12	824	214	43	1285
Bung-fastener.....	G. A. Gemünden and A. F. Gärtner.....	381,920	May 1	30	9	43	520
Bung-making machine.....	F. M. La Boiteaux.....	382,064	May 1	180	46, 47	43	547
Bung-retainer and stamp-protector.....	D. Croake.....	391,455	Oct. 23	1791	478	45	367
Buoy.....	W. C. Whittle.....	390,050	Sept. 25	1500	501	44	1459
Buoy. Life.....	P. Hichborn.....	388,971	Sept. 4	243	65	44	1118
Buoy. Sounding-alarm.....	A. L. Woodworth.....	388,384	Aug. 21	1851	492	44	941
Buoys and boats. Bell-ringing device for.....	G. Berger.....	383,552	May 29	2516	664	43	1026
Bureau.....	D. C. Clapp.....	381,337	Apr. 17	1555	419	43	329
Bureau.....	D. C. Clapp.....	381,760	Apr. 24	2182	571	43	460
Bureau.....	D. C. Clapp.....	390,840	Oct. 9	898	238	45	183
Bureau.....	C. H. French.....	394,847	Dec. 18	1728	418	45	1425
Burglar-alarm.....	M. W. Brooks.....	389,361	Sept. 11	851	218	44	1243
Burglar-alarm.....	T. J. Brough.....	386,236	July 17	1344	354	44	277
Burglar-alarm.....	S. C. Freeman and J. B. Soward.....	384,752	June 19	1361	355	43	1396
Burglar-alarm.....	S. Goulden and J. Clarke.....	382,972	May 15	1612	422	43	840
Burglar-alarm.....	J. Israel.....	386,131	July 17	1181	314	44	246
Burglar-alarm.....	J. Israel.....	386,133	July 17	1182	315	44	247
Burglar-alarm.....	J. Israel.....	386,134	July 17	1183	316	44	247
Burglar-alarm.....	J. Israel.....	386,135	July 17	1184	316	44	247
Burglar-alarm.....	L. K. Johnson.....	392,805	Nov. 13	936	239	45	782

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Burglar-alarm.....	W. E. McIntosh.....	380,912	Apr. 10	917	246	43	188
Burglar-alarm.....	W. E. McIntosh.....	382,484	May 8	920	233	43	694
Burglar-alarm.....	J. L. Mikich.....	394,707	Dec. 18	1478	386	45	1375
Burglar-alarm.....	C. Phelps.....	386,265	July 17	1385	365	44	284
Burglar-alarm.....	W. H. Reiff.....	376,909	Jan. 21	1727	454	42	353
Burglar-alarm.....	J. G. Schuirmann.....	390,989	Oct. 9	1121	296	45	225
Burglar-alarm.....	H. W. Sinclair.....	386,359	July 17	1503	398	44	307
Burglar-alarm.....	W. L. Swan.....	382,669	May 8	1203	312	43	750
Burglar-alarm.....	R. Teichmann.....	391,724	Oct. 23	2149	581	45	441
Burglar-alarm.....	R. H. Umbenhaur.....	386,045	July 10	1042	278	44	213
Burglar-alarm.....	C. H. Wright.....	379,144	Mar. 6	408	115	42	1043
Burglar-alarm and sash-lock. Combined.....	A. B. Candle.....	391,881	Oct. 30	2388	648	45	499
Burglar-alarm. Electric.....	H. C. Roome.....	382,439	May 8	838	215 } 216 }	43	679
Burglar-alarm. Electric.....	G. F. Taft.....	382,444	May 8	853	218	43	681
Burglar-alarm indicator. Electric-light.....	R. Packer and I. E. Cochran, Jr.....	393,657	Nov. 27	2185	573	45	1045
Burglar-alarms. Circuit-changing device for.....	F. H. Nutter.....	388,438	Aug. 28	1922	513	44	962
Burial apparatus.....	A. R. Young.....	394,947	Dec. 18	1893	489	45	1456
Burial-casket.....	J. Walker.....	381,194	Apr. 17	1358	363	43	280
Burial-caskets. Fastener for.....	E. and B. Holmes.....	382,160	May 1	415	100	43	569
Burial process.....	J. T. Braund.....	376,629	Jan. 17	1297	341	42	263
Burner.....							
See Gas-burner. Liquid-fuel burner.							
Gas-fuel burner. Oil-burner.							
Gas-lighting burner. Oil and gas burner.							
Gaseous-fuel burner. Paint-burner.							
Hay and straw burn- Petroleum-burner.							
er. Refuse-burner.							
Hydrocarbon-burn- Stove-burner.							
er. Straw-burner.							
Lamp-burner. Vapor-burner.							
Burner-tip.....	W. M. Jackson.....	381,379	Apr. 17	1625	433	43	333
Burners for incandescent lighting and making the same. Stock for skeleton	E. Moreau.....	383,898	June 5	74	22	43	1135
Burnisher.....	W. H. Boles.....	378,760	Feb. 28	2102	{ 554 555 }	42	928
Burnisher and seat-wheel.....	A. C. Esworthy.....	388,351	Aug. 21	1787	477	44	931
Burnishing-machine.....	C. J. Addy.....	382,581	May 8	1073	275	43	724
Burnishing-machine.....	C. J. Blakely.....	392,944	Nov. 13	1123	292	45	819
Burnishing-machine.....	J. J. Fitzgibbon.....	386,920	July 31	2369	622	44	492
Burnishing-machine.....	A. B. Fowler.....	377,826	Feb. 14	743	{ 188 189 }	42	651
Burnishing-machine.....	B. F. Patch.....	377,574	Feb. 7	330	85	42	559
Burnishing-machine.....	H. F. Rooney.....	376,045	Jan. 3	446	119	42	89
Burnishing or trimming tool.....	A. B. Fowler and G. E. Warren.....	384,902	June 19	1585	412	43	1438
Bustle.....	F. E. Bennett.....	379,928	Mar. 27	1604	425	42	1296
Bustle.....	F. J. Brand.....	384,557	June 12	1076	281	43	1333
Bustle.....	V. H. Buschmann.....	335,296	June 26	2196	561	43	1570
Bustle.....	H. O. Canfield.....	375,922	Jan. 3	263	71	42	55
Bustle.....	H. O. Canfield.....	375,923	Jan. 3	264	72	42	55
Bustle.....	H. O. Canfield.....	375,924	Jan. 3	265	72	42	56
Bustle.....	C. C. Carpenter.....	379,001	Mar. 6	207	56	42	1006
Bustle.....	J. Calvin.....	378,439	Feb. 28	1654	434	42	841
Bustle.....	M. B. Hammond.....	378,134	Feb. 21	1191	311	42	746
Bustle.....	K. Hendricks.....	386,744	July 24	2070	545	44	427
Bustle.....	J. E. Hogsett.....	384,848	June 19	1515	394	43	1426
Bustle.....	J. E. Hogsett.....	387,515	Aug. 7	469	{ 123 124 }	44	664
Bustle.....	A. H. Jackson.....	384,850	June 19	1517	395	43	1426
Bustle.....	A. H. Jackson.....	386,827	July 31	2231	587	44	466
Bustle.....	F. M. Jeffery.....	378,964	Mar. 6	142	41, 42	42	994
Bustle.....	F. M. Jeffery.....	379,516	Mar. 13	957	258	42	1154
Bustle.....	F. M. Jeffery.....	386,249	July 17	1359	358	44	279
Bustle.....	F. M. Jeffery and A. Stern.....	390,973	Oct. 9	1098	289	45	220
Bustle.....	H. A. Jewell.....	381,140	Apr. 17	1283	343	43	266
Bustle.....	D. V. Miller.....	391,757	Oct. 23	2192	591	45	450
Bustle.....	C. O'Day.....	382,378	May 8	756	192	43	662
Bustle.....	H. P. Olmstead.....	383,903	June 5	81	23	43	1136
Bustle.....	W. F. Osborne.....	376,394	Jan. 10	936	245	42	188
Bustle.....	G. Schoen.....	379,419	Mar. 13	808	217	42	1125
Bustle.....	C. C. Shelby.....	395,183	Dec. 25	2271	582	45	1535
Bustle.....	L. Smith.....	382,059	May 1	274	72	43	564
Bustle.....	A. Taylor.....	377,724	Feb. 7	557	142	42	599
Bustle.....	T. P. Taylor.....	376,272	Jan. 10	773	205	42	159
Bustle.....	A. W. Thomas.....	377,652	Feb. 7	457	117	42	581
Bustle.....	A. White.....	383,421	May 22	2302	611	43	979
Bustle.....	S. S. Williamson.....	378,187	Feb. 21	1265	334	42	760
Butter-can.....	J. E. Levasseur.....	380,211	Mar. 27	2004	536	42	1375
Butter-mold.....	F. P. Ayer.....	384,303	June 12	694	185	43	1263
Butter-mold.....	H. B. Souders.....	394,028	Dec. 4	423	114	45	1152
Butter-package.....	G. W. Bradley.....	389,285	Sept. 11	752	191	44	1223
Butter-package.....	D. W. Miller.....	390,388	Oct. 2	273	72	45	58
Butter-package.....	W. H. Roberts.....	380,219	Mar. 27	2015	539	42	1377
Butter-package. Metallic.....	O. Higgins and A. J. Wheeler.....	389,746	Sept. 18	1445	378	44	1361
Butter-printing machine.....	J. W. Black and G. W. Stout.....	394,753	Dec. 18	1555	406	45	1392
Butter-tub.....	A. C. Howe.....	380,487	Apr. 3	264	73	43	54
Butter-worker.....	J. W. Button.....	390,565	Oct. 2	520	136	45	105
Butter-worker.....	F. E. Crawford.....	380,867	Apr. 10	849	229	43	175
Butter-worker.....	J. A. Graves.....	395,049	Dec. 25	2043	528	45	1493
Butter-worker.....	U. B. Pennebaker and T. B. Ross.....	390,700	Oct. 9	697	185	45	147
Butter-worker.....	R. Twist.....	393,043	Nov. 20	1278	331	45	857
Button.....	J. U. Adams.....	389,042	Sept. 4	343	90	44	1137
Button.....	O. Anderson and T. Pattison.....	384,273	June 12	650	175	43	1255
Button.....	F. P. Barney.....	381,319	Apr. 17	1532	413	43	315

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Button	A. Bippart	381,103	Apr. 17	1235	331	43	257
Button	G. S. Blum, Jr., and J. A. Phillips	377,446	Feb. 7	148	43	42	523
Button	A. Blumenkrohn	379,000	Mar. 6	207	56	42	1005
Button	W. Bourke	379,929	Mar. 27	1604	426	42	1296
Button	W. Bourke	391,398	Oct. 23	1711	455	45	351
Button	J. Costello	379,529	Mar. 13	969	262	42	1157
Button	S. Cottle	391,923	Mar. 6	88	25	42	984
Button	S. Cottle	391,230	Oct. 16	1476	392	45	299
Button	E. B. Crooks	390,209	Oct. 2	22	6	45	8
Button	E. S. Dodge	388,402	Aug. 28	1874	501	44	952
Button	I. Dreichlinger	389,693	Sept. 18	1369	358	44	1345
Button	J. M. Ellis	380,678	Apr. 10	567	156	43	123
Button	H. F. Hambruch	399,855	Oct. 9	917	242	45	186
Button	T. R. Hyde, Jr.	376,958	Jan. 24	1792	471	42	365
Button	D. A. Ladd	376,890	Jan. 24	1701	444	42	317
Button	W. J. Leckie, Jr.	377,625	Feb. 7	409	104	42	573
Button	R. Liebmann	380,581	Apr. 3	416	118	43	85
Button	R. Liebmann	390,869	Oct. 9	933	246	45	189
Button	F. Meyers	388,212	Aug. 21	1575	420	44	889
Button	W. F. Niles	384,064	June 5	332	94	43	1181
Button	J. P. Noyes	377,768	Feb. 14	660	165	42	636
Button	C. A. Peirce	385,876	July 10	820	217	44	167
Button	J. A. Phillips and G. S. Blum, Jr.	392,568	Nov. 6	571	144	45	705
Button	C. Prentice	394,132	Dec. 4	580	155	45	1182
Button	H. B. Robinson	386,559	July 24	1819	481	44	379
Button	A. J. Shipley	382,115	May 1	353	93	43	579
Button	A. J. Shipley, H. T. Sperry, and T. R. Hyde, Jr.	379,912	Mar. 20	1577	415	42	1260
Button	I. Smith	381,438	Apr. 17	1713	459	43	351
Button	H. T. Sperry	377,581	Feb. 7	342	88	42	561
Button	W. Starley	383,156	May 22	1913	500	43	908
Button	G. L. Sutton	389,420	Sept. 11	944	247	44	1260
Button	H. S. Thayer	392,377	Nov. 6	299	75	45	652
Button	F. H. Thier	379,742	Mar. 20	1291	344	42	1246
Button	H. Vollmer	381,007	June 5	244	70	43	1169
Button	W. F. Whiting	386,763	July 24	2094	550	44	432
Button. Adjustable	C. G. Smith	391,656	Oct. 23	2057	557	45	424
Button and fastener	A. Storck	378,182	Feb. 21	1258	332	42	758
Button-attaching machine	E. M. Murray	389,237	Sept. 11	673	172	44	1207
Button-attaching machine	E. H. Taylor	385,734	July 10	599	155	41	124
Button-attaching machine	J. F. Thayer	386,856	July 31	2271	598	44	473
Button-attaching machine	H. Tone	376,971	Jan. 24	1806	476	42	368
Button-attaching machine	A. G. Wilkins	379,431	Mar. 13	832	221	42	1129
Button-hacks. Machine for making	F. J. Ludington	376,895	Jan. 24	1706	447	42	348
Button. Collar	E. T. Dahlberg	386,002	July 10	983	262	44	201
Button. Composition-faced	I. Smith	395,186	Dec. 25	2275	584	45	1535
Button. Cuff	G. B. Adams	376,500	Jan. 17	1099	288	42	226
Button. Cuff	F. F. Bioren	376,282	Jan. 10	786	208	42	160
Button. Detachable	W. W. Covell	354,441	May 29	2333	620	43	992
Button-detaching device	B. Poulson	379,604	Mar. 20	1095	201	42	1187
Button-detaching device	W. D. Schiefer	379,609	Mar. 20	1100	202	42	1188
Button-edges. Apparatus for grinding	J. Mahla	389,312	Sept. 11	787	200	44	1229
Button-fastener	E. P. Clark and N. D. Ingraham	381,019	June 5	258	74	43	1171
Button-fastener	E. P. Clark and N. D. Ingraham	393,740	Dec. 4	7	3	45	1071
Button-fastener	W. M. Hazel	380,112	Mar. 27	1871	498	42	1348
Button-fastener	T. R. Hyde, Jr.	389,386	Sept. 11	597	231	44	1251
Button-fastener	C. M. Platt	388,443	Aug. 28	1927	515	44	963
Button-fastener	G. W. Prentice	379,028	Mar. 6	248	70	42	1012
Button-fastener	C. E. Vreeland	382,342	May 8	697	175	43	651
Button-fastener	A. L. Winn	376,497	Jan. 17	1097	288	42	225
Button-fasteners. Implement for removing	H. S. Ginther	389,145	Sept. 4	522	132	44	1169
Button-fastening machine	A. Schillmüller	392,761	Nov. 13	862	220	45	768
Button-fly-marking machine	H. R. Corkhill, Sr.	380,994	Apr. 10	1053	278	43	213
Button-forming machine	R. Hörmann	380,722	Apr. 10	628	173	43	134
Button. Hinged shoe	G. C. Bugbee	381,328	Apr. 17	1543	416	43	317
Button. Hinged shoe	R. H. Lewis	381,477	Apr. 17	1773	473	43	361
Button-hole-barring machine	H. M. Essington	377,931	Feb. 14	892	202	42	681
Button-hole cutter	L. A. Carson	392,717	Nov. 13	794	202	45	754
Button-hole cutter	D. H. Cunningham	379,007	Mar. 6	213	58	42	1007
Button-hole cutter	J. K. Hopkins	381,164	June 5	480	132	43	1214
Button-hole cutter	G. W. Peters	384,710	June 19	1308	312	43	1386
Button-hole cutter	W. P. Vrooman	384,653	June 19	1212	320	43	1368
Button-hole cutting and embossing machine	Z. T. French and W. C. Meyer	381,995	May 1	163	41	43	544
Button-hole-finishing machine	G. S. Hill	376,245	Jan. 10	737	196	42	151
Button-hole flies. Mechanism for stamping and cutting out	G. Valiant and C. Dancel	385,219	June 26	2064	529	43	1545
Button-hole opener	J. R. Stephens	383,021	May 15	1700	530	43	857
Button-hole stitching and barring machine	J. H. Reed	378,217	Feb. 21	1305	347	42	768
Button-hole stitching and barring machine	J. H. Reed	378,404	Feb. 21	1588	348	42	821
Button-hole stitching and barring machine	J. H. Reed	394,131	Dec. 4	582	156	45	1182
Button-hole-stitching machine	J. H. Reed and F. W. Beale	389,010	Sept. 4	292	78	44	1128
Button-hole strips. Making	E. K. Warren and J. H. Ames	392,380	Nov. 6	302	76, 77	45	652



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Button-hole tab .....	S. A. Saeger .....	388,075	Aug. 21	1339	361	44	846
Button-holes. Barring .....	J. H. Reed .....	378,218	Feb. 21	1310	348	42	769
Button-holes. Finishing .....	R. W. Thomson and E. M. Phelps .....	379,497	Mar. 13	928	249	42	1148
Button. Imitation .....	J. C. Schmahl .....	379,259	Mar. 13	920	169	42	1059
Button-loop and safety-pin .....	E. Pickhardt .....	381,639	June 19	1195	316	43	1364
Button-machine .....	C. J. Coleman .....	394,676	Dec. 18	1434	374	45	1365
Button-machine .....	J. C. F. Dick .....	389,453	Sept. 11	996	266	44	1269
Button-machine .....	J. Emery .....	383,802	May 29	2-93	763	43	1102
Button-machine .....	G. W. Prentice .....	383,490	May 29	2421	643	43	1009
Button-machine .....	A. Wittig .....	382,786	May 15	1363	358	43	790
Button-machines. Nail and washer feeder for .....	E. B. Hamilton .....	389,648	Sept. 18	1302	341	44	1331
Button-making device .....	J. Stewart .....	384,547	June 12	1058	276	43	1329
Button-making machine .....	F. Bocks .....	380,980	Apr. 10	1029	269	43	208
Button-making machine .....	R. L. Ellery and J. Veazie .....	390,118	Sept. 25	2067	535	44	1481
Button-making machine .....	C. A. Pfennig .....	386,493	July 24	1712	453	44	361
Button-manufacturing machine .....	G. Heidmann, E. Hüttges, and C. Egen. ....	383,881	June 5	45	15	43	1130
Button. Metallic .....	C. Radcliffe. (Reissue) .....	10,917	Mar. 27	2135	570	42	1402
Button or stud .....	S. L. Child .....	377,235	Jan. 31	2185	577	42	450
Button or stud .....	W. F. Whiting .....	386,762	July 24	2092	550	44	431
Button or stud .....	W. F. Whiting .....	386,764	July 24	2094	550	44	432
Button or stud. Detachable .....	H. F. Hambruch .....	383,052	May 15	1759	454	43	868
Button. Separable .....	E. Pringle .....	391,076	Oct. 16	1265	336	45	259
Button. Separable .....	M. D. Shipman .....	388,225	Aug. 21	1589	423	44	892
Button. Separable .....	M. D. Shipman .....	391,200	Oct. 16	1434	383	45	292
Button-setting machine .....	L. C. Emerson .....	394,564	Dec. 18	1248	327	45	1331
Button-setting machine .....	A. M. English .....	390,214	Oct. 2	28	8	45	9
Button-setting machine .....	H. Jones .....	394,579	Dec. 18	1271	333	45	1336
Button-setting machine .....	F. H. Richards .....	381,030	Apr. 10	1099	292	43	222
Button-setting machine .....	F. H. Richards .....	381,031	Apr. 10	1103	294	43	222
Button-setting machine .....	E. H. Taylor .....	393,730	Nov. 27	2285	590	45	1064
Button-setting machine .....	E. H. Taylor .....	391,546	Dec. 11	1206	313	45	1309
Button-setting machine .....	C. B. Tenple and F. T. Bolton .....	392,647	Nov. 13	696	175	45	734
Button-setting machine .....	J. H. Vinton .....	382,341	May 8	695	175	43	651
Button-setting machine .....	J. H. Vinton .....	388,232	Aug. 21	1690	428	44	895
Button-setting machine .....	J. H. Vinton .....	384,231	Dec. 11	734	194	45	1220
Button-setting machine .....	A. G. Wilkins .....	381,310	Apr. 17	1517	409	43	311
Button-setting machines. Apparatus for making raceways for .....	J. H. Vinton .....	381,296	Apr. 17	1495	404	43	307
Button-setting machines. Die for .....	J. H. Vinton .....	382,340	May 8	694	175	43	651
Button-setting machines. Making raceways for .....	J. H. Vinton .....	381,298	Apr. 17	1498	404	43	308
Button-setting tool .....	E. H. Taylor .....	390,818	Oct. 9	863	229	45	177
Button-shanks and fasteners. Machine for connecting .....	E. M. Murray .....	389,238	Sept. 11	680	173	44	1209
Button. Sleeve .....	L. D. Frenot .....	378,956	Mar. 6	133	38	42	992
Button. Sleeve .....	O. T. Moeck and W. L. Headley .....	382,485	May 8	921	234	43	694
Buttons. Machine for making covered .....	A. Brand .....	375,726	Jan. 3	6	2	42	4
Buttons. Machine for manufacturing .....	C. A. Pfennig .....	376,783	Jan. 24	1543	406	42	318
Buttons. Machine for rubbing and polishing .....	E. P. Howe .....	394,185	Dec. 11	659	177	45	1206
Buttons, &c. Making .....	S. Cottle .....	381,192	June 5	519	141	43	1222
Buttons. Making .....	S. Cottle .....	381,226	June 5	572	156	43	1232
Buttons. Making lacing .....	E. Revol .....	393,721	Nov. 27	2271	596	45	1062
Buttons. Manufacture of .....	D. A. Ladd .....	380,807	Apr. 10	756	207	43	158
Buttons. Manufacturing .....	H. S. Thayer .....	392,376	Nov. 6	297	75	45	651
Buttons to corsets or other garments. Attaching .....	M. P. Bray .....	393,687	Nov. 27	2229	585	45	1055
Buttons. Tool for removing .....	E. B. Hamilton .....	379,460	Mar. 13	870	235	42	1137
Buttoner .....	C. L. Uhry .....	389,863	Sept. 18	1626	430	44	1396
Buzz. Musical .....	A. Elmendorf and C. F. Washburn .....	392,504	Nov. 6	481	121	45	666
Cabinet-bath .....	T. T. W., and H. E. Wallis .....	379,143	Mar. 6	406	114	42	1043
Cabinet-case for holding railway-folders .....	G. A. Fellows .....	380,877	Apr. 10	863	232	43	177
Cabinet. Drop .....	G. D. Garvie .....	392,492	Nov. 6	363	90	45	662
Cabinet for displaying cakes and confections .....	H. King .....	379,475	Mar. 13	888	239	42	1141
Cabinet for holding account-slips .....	J. R. Coddington .....	385,341	July 3	6	2	44	4
Cable and car-propeller. Elevated .....	H. Casebolt .....	381,124	June 5	416	115	43	1200
Cable conduit and truck .....	W. Heckort .....	382,810	May 15	1393	366	43	796
Cable coupling and grip device .....	J. H. Bowden .....	391,226	Oct. 16	1471	391	45	299
Cable-covering machine .....	C. H. Gersch .....	383,353	May 22	2195	580	43	961
Cable-grip .....	F. H. D. Bergmann .....	376,627	Jan. 17	1293	340	42	262
Cable-grip .....	W. J. E. Carr .....	381,904	May 1	12	3	43	517
Cable-grip .....	W. J. E. Carr .....	381,905	May 1	13	4	43	517
Cable-grip .....	E. P. Heppard, Jr. ....	376,885	Jan. 24	1697	443	42	346
Cable-grip .....	R. A. McLellan .....	390,882	Oct. 9	951	251	45	193
Cable-grip .....	F. H. Morse .....	385,195	June 26	2032	520	43	1538
Cable-grip .....	D. A. Tinklepangh .....	394,796	Dec. 18	1640	429	45	1409
Cable-grip .....	J. F. West .....	377,702	Feb. 7	529	135	42	594
Cable-grip beam and supporting device therefor .....	L. Pfingst and S. A. Bemis .....	386,344	July 17	1182	393	44	303
Cable-grip detachier .....	H. C. Grawe .....	386,196	July 17	1262	337	44	263
Cable-grip device .....	J. T. Hodgins .....	386,585	July 24	1851	489	44	386
Cable-grips and other purposes. Friction-roller for .....	T. J. Mayall .....	381,404	Apr. 17	1660	444	43	341
Cable gripper and pick-up .....	J. E. Holmes and L. N. Charles .....	386,824	July 31	2223	586	44	464
Cable gripper and pick-up .....	J. E. Holmes and L. N. Charles .....	391,471	Oct. 23	1813	485	45	372
Cable-hanger .....	E. J. Hall .....	391,605	Oct. 23	1989	536	45	409
Cable road and machinery for operating the same .....	E. J. Weston .....	382,575	May 8	1062	271	43	722

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Cable-road grip-gear .....	M. Tolle .....	381,489	Apr. 17	1791	477	43	365
Cable roads. Chain-grip for .....	W. Heckert .....	381,689	June 19	1272	333	43	1379
Cable roads. Driving machinery for .....	W. Heckert .....	383,466	May 29	2381	{ 633 634 }	43	1002
Cable roads. Yoke-frame for .....	J. Beaver-Webb .....	394,801	Dec. 18	1646	430	45	1410
Cable-splices. Locking device for .....	W. R. Patterson .....	382,726	May 15	1279	{ 335 336 }	43	774
Cable stop. Slack .....	F. B. Graves .....	385,754	July 10	640	166	44	133
Cable support. Electric .....	C. H. Bowen .....	395,207	Dec. 25	2304	{ 590 591 }	45	1541
Cables. Splicing .....	J. Collins .....	386,690	July 24	1991	{ 526 527 }	44	413
Caisson. Portable .....	H. P. Kirkham .....	381,797	Apr. 24	2233	{ 584 585 }	43	470
Cake-cutter .....	L. Maurer .....	379,019	Mar. 6	231	67	42	1010
Cake-dropping machine .....	P. F. Carroll .....	390,202	Oct. 2	10	3	45	5
Cake or bread heater .....	S. F. Stowe .....	376,420	Jan. 10	981	256	42	195
Cake or pie pan .....	M. Littleton .....	386,077	July 10	1086	292	44	292
Calamine. Composition of matter to be used as a .....	C. W. Hurd .....	393,157	Nov. 20	1427	.....	45	886
Calculating device. Interest .....	G. D. Hicks .....	379,536	Mar. 13	981	264	42	1159
Calculating-machine .....	F. L. Bancroft .....	377,823	Feb. 14	740	187	42	650
Calculating-machine .....	W. S. Burroughs .....	388,116	Aug. 21	1404	{ 377 378 379 }	44	857
Calculating-machine .....	W. S. Burroughs .....	388,117	Aug. 21	1412	{ 379 380 }	44	859
Calculating-machine .....	W. S. Burroughs .....	388,118	Aug. 21	1417	{ 380 381 382 }	44	859
Calculating-machine .....	W. S. Burroughs .....	388,119	Aug. 21	1428	{ 382 383 384 385 }	44	861
Calculating-machine .....	C. Lorenz .....	393,478	Nov. 27	1915	{ 501 502 }	45	989
Calculator. Interest .....	C. M. Dunham .....	384,431	June 12	882	230	43	1297
Calendar .....	J. Cussons .....	385,245	June 26	2105	539	43	1553
Calendar .....	W. K. David .....	375,736	Jan. 3	20	5, 6, 7	42	7
Calendar .....	W. K. David .....	379,197	Mar. 6	473	134	42	1056
Calendar .....	W. B. Fowle .....	389,242	Sept. 11	625	160	44	1198
Calendar .....	W. W. Haas .....	392,327	Nov. 6	221	57	45	636
Calendar .....	H. S. Hack .....	387,784	Aug. 14	881	228	44	748
Calendar .....	H. S. Hack .....	391,705	Oct. 23	2127	574	45	137
Calendar .....	F. W. Moulton .....	376,391	Jan. 10	934	245	42	188
Calendar .....	L. J. Woolsey .....	394,805	Dec. 18	1652	432	45	1411
Calendar. Memorandum .....	A. H. Isbell .....	381,526	June 12	1029	269	43	1324
Calendar or memorandum-roll .....	H. S. Hack .....	388,411	Aug. 28	1884	503	44	954
Calendar stand and pad .....	H. H. Unz .....	393,528	Nov. 27	1989	520	45	1006
Calendar with day-indicator. Dial .....	C. F. Sinn .....	379,293	Mar. 13	627	171	42	1090
Calendar-rolls. Dampening device for .....	J. M. Shurtle .....	388,921	Sept. 4	170	45	44	1105
Calipers and dividers .....	F. Moitz .....	395,167	Dec. 25	2243	576	45	1530
Calipers. Beam .....	C. E. Billings .....	382,348	May 8	712	180	43	654
Calipers. Combined outside and inside .....	O. D. Warfield .....	380,836	Apr. 10	794	217	43	116
Calipers. Micrometer .....	J. D. Bishop .....	389,734	Sept. 18	1430	373	41	1358
Calipers. Micrometer .....	E. J. Hadley .....	388,669	Aug. 28	2248	603	44	1024
Calipers or dividers .....	J. Stevens .....	377,868	Feb. 14	799	204	42	662
Calk for horseshoes. Removable .....	T. B. Mason .....	387,000	July 31	2481	651	44	514
Calk-plate for shoes .....	C. Kellermann and H. M. Solveson .....	394,863	Dec. 18	1754	454	45	1440
Calks. Device for sharpening toe .....	J. C. and H. C. Williams .....	376,697	Jan. 17	1401	369	42	282
Calorimeter. Steam .....	G. H. Barrus .....	392,980	Nov. 20	1189	309	45	839
Cam. Dwell .....	J. Thomson .....	378,343	Feb. 21	1507	393	42	805
Cam mechanism .....	C. H. Willcox .....	389,782	Sept. 18	1488	392	44	1370
Camera .....							
See Photographic camera.							
Camera .....	G. Eastman .....	388,850	Sept. 4	63	17	44	1085
Camera .....	E. W. Sweigard .....	393,729	Nov. 27	2282	599	45	1064
Camera attachment .....	F. A. Brownell .....	388,259	Aug. 21	1654	441	44	905
Camera-shutter .....	E. N. Bliss and J. F. Middleton .....	386,419	July 24	1652	436	44	349
Camera-shutter .....	F. Burrows .....	393,500	Nov. 27	1942	508	45	995
Camera-tripod .....	W. H. Carpenter .....	378,430	Feb. 28	1036	430	42	837
Camphor. Refining .....	M. J. Schreiter .....	390,523	Oct. 2	459	.....	45	93
Can .....							
See Automatically-clos-	Mucilage-can.						
ing can.	Oil-can.						
Butter-can.	Oiling-can.						
Creaming-can.	Refrigerating-can.						
Drip-can.	Refrigerator-can.						
Gasoline-can.	Sheet-metal can.						
Glue-packing can.	Sprinkling or other can.						
Jacketed can.	Tin can.						
Milk-can.							
Can .....	J. Fox .....	375,992	Jan. 3	365	98	42	74
Can .....	P. N. Gaskell .....	376,085	Jan. 10	505	136	42	108
Can .....	J. F. Maxson .....	394,381	Dec. 11	965	254	45	1266
Can .....	I. C. Mayo .....	389,234	Sept. 11	666	171	41	1206
Can-bodies. Apparatus for forming sheet-metal .....	F. M. Leavitt .....	382,537	May 8	1001	{ 254 255 256 }	43	709
Can-bodies. Die for forming .....	G. W. Knapp .....	388,289	Aug. 21	1697	432	44	915
Can-body-making machines. Feeder for .....	J. Stevens .....	380,774	Apr. 10	709	196	43	150
Can-rapping machine .....	C. A. Burt .....	377,449	Feb. 7	154	35	42	524
Can clamp. Fruit .....	M. J. Hamilton .....	384,361	June 12	786	205	43	1278
Can cover and clamp .....	E. R. Bristol and E. C. Gran .....	376,941	Jan. 21	1769	475	42	360
Can cover. Milk .....	F. Stork .....	383,024	May 15	1704	413	43	858

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Can crimper and capper.	M. Jensen	376,804	Jan. 24	1578	{ 413	} 42	325
Can-ending machine.	J. H. Clapp	392,853	Nov. 13	1004	257		
Can-filling apparatus.	H. Hermann	376,195	Jan. 10	667	177	42	138
Can-filling attachment.	J. H. J. Haines	381,236	Apr. 17	1422	382	43	293
Can-filling machine.	J. B. Holapp	391,795	Oct. 30	2266	614	45	475
Can-filling machine.	G. H. Perkins	383,981	June 5	207	{ 61	} 43	1160
Can-filling machine.	C. Seimel	383,595	May 29	2562	678		
Can-filling machine.	W. H. Wright	376,403	Jan. 10	948	248	42	190
Can for molasses, &c.	S. R. Billups	376,064	Jan. 10	474	123	42	102
Can for printers' ink, &c.	C. H. Hollis	381,553	Apr. 24	1888	498	43	402
Can-forming machines. Horn for.	B. Adriaunce	389,828	Sept. 18	1553	411	44	1383
Can-heading machine.	J. G. Hodgson	387,880	Aug. 14	1021	269	44	775
Can-heading machine.	F. M. Leavitt	382,538	May 8	1006	{ 256	} 43	710
Can-heading machine.	F. M. Leavitt	390,086	Sept. 25	1960	521		
Can-heading machine.	J. Solter	382,567	May 8	1047	{ 267	} 43	719
Can-heading machine.	J. Solter	386,760	July 24	2090	549		
Can-machine.	E. F. Verdel	386,096	July 10	1123	299	41	223
Can nozzle. Oil.	E. A. Deverall	385,447	July 3	171	46	44	35
Can-opener.	J. Blakeslee	384,759	June 19	1344	351	43	1393
Can-opener.	H. Bruckerman	376,577	Jan. 17	1204	318	42	246
Can-opener.	J. P. French	389,293	Sept. 11	767	195	44	1226
Can-opener.	D. H. King	390,025	Sept. 25	1856	492	44	1450
Can-opener.	G. W. Lyons	394,123	Dec. 4	562	151	45	1179
Can-opener.	W. P. Quentell	380,406	Apr. 3	146	42	43	30
Can opener.	W. B. and G. H. Williamson	378,349	Feb. 21	1515	396	42	807
Can opener and sheet-metal cutter.	E. Hawes	384,973	June 26	1687	438	41	1467
Can or jar top cover.	A. L. Mitchell	395,289	Dec. 25	2432	625	45	1565
Can or measure.	J. Cuthbertson	376,768	Jan. 24	1521	400	42	314
Can-stopper.	H. Selvago	378,981	Mar. 6	167	48	42	999
Can-testing machine.	W. H. Smyth	394,664	Dec. 18	1413	368	45	1361
Cans. Die for the manufacture of.	G. W. Kuapp	388,288	Aug. 21	1695	452	41	914
Cans. Means for closing milk.	O. Von Roden	376,690	Jan. 17	1393	366	42	280
Cans. Nozzle for sheet-metal.	W. Vogel	383,840	May 29	2944	779	43	1112
Cans. Restoring old metal.	J. W. Geddes	387,587	Aug. 7	601		44	687
Cans with oils and other liquids. Box for filling.	G. H. Perkins	383,979	June 5	205	60	43	1160
Canal-lock.	A. L. Blackman	392,002	Oct. 30	2566	{ 696	} 45	533
Canals, railway-beds, &c. Construction of.	J. E. Robinson	380,934	Apr. 10	953	253		
Candle-case. Pocket.	J. H. Johnson	386,829	July 31	2237	588	44	466
Candle-holder.	G. C. Masson-Chevallier	388,894	Sept. 4	131	35	41	1097
Candle-molds. Apparatus for cooling.	G. Jansson	380,205	Mar. 27	1996	534	42	1373
Candle. Sulphur.	C. H. Shaw	390,314	Oct. 2	156	43	45	34
Candles or tapers. Shade for.	C. C. Worthington	377,345	Jan. 31	2357	662	42	480
Candlestick.	H. E. Lewis	379,171	Mar. 6	437	123	42	1049
Candlestick.	R. H. Miel and R. Knott	380,506	Apr. 3	300	87	43	61
Candlestick.	G. Wernitz	395,097	Dec. 25	2120	548	45	1500
Candy. Apparatus for making.	H. J. Patton and J. C. Wiseley	389,406	Sept. 11	920	240	41	1255
Candy-dropping machine.	Z. T. Hartman	380,108	Mar. 27	1866	{ 496	} 42	1347
Candy-machine.	G. Tschinkel	385,487	July 3	232	60		
Candy. Machine for making.	H. W. Hoops	379,871	Mar. 20	1517	399	42	1270
Cane.	J. E. Hale	389,806	Sept. 18	1525	404	44	1378
Cane and camp-stool. Combined.	H. Hendrickson	389,810	Sept. 18	1530	405	44	1379
Cane and chair. Combined.	J. H. Kamerer	382,308	May 8	642	103	43	642
Cane and stool. Combined.	W. Leisner	391,901	Oct. 30	2419	654	45	505
Cane. Combination.	D. Crowley	387,213	Aug. 7	25	5	44	577
Cane, flask, and drinking-cup. Combined.	J. E. Hale	395,224	Dec. 25	2943	600	45	1547
Cane. Machine for cutting sugar.	L. Bon	385,234	June 26	2091	536	43	1550
Cane-mill.	R. A. Robertson and J. G. Hudson	391,337	Oct. 16	1619	{ 428	} 45	396
Cane-mills. Scraper for.	M. L. Flowers	389,801	Sept. 18	1521	402		
Cane-shaving machines. Gage attachment for.	L. Janson	378,591	Feb. 28	1867	493	42	885
Cane-shredder.	S. Fiske	390,580	Oct. 2	535	{ 140	} 45	108
Cane-shredding machine.	J. Parker	387,438	Aug. 7	355	91		
Cane-stripper.	R. P. Sorrels	378,735	Feb. 28	2066	545	42	922
Cane, umbrella, and camp-stool. Combined.	M. Schiff	384,790	June 19	1415	371	43	1408
Cane. Walking.	G. H. Comsen	391,123	Oct. 16	1327	354	45	270
Cane. Walking.	J. E. Hale	390,961	Oct. 9	1071	283	45	216
Canes, &c. Utensil-head for.	M. Siebritz and A. Miller	383,598	May 29	2566	679	43	1038
Canister.	F. Reil	392,068	Oct. 30	2662	724	45	552
Cannon. Making.	J. P. Lavigne	388,696	Aug. 28	2288	615	44	1032
Cannon. Pneumatic.	W. A. Bartlett	381,901	May 1	7	2	43	516
Cant-hook.	L. L. Cook	378,386	Feb. 21	1561	408	42	816
Cant-hook.	D. Moran	393,384	Nov. 27	1767	468	45	962
Cant-hook.	C. Nygaard	382,240	May 1	529	135	43	611
Cant-hook.	M. N. Rankins	392,752	Nov. 13	847	216	45	764
Cant-hooks. Toe-ring for.	A. Sanford	389,941	Sept. 25	1740	461	44	1427
Canteen.	E. A. Trim	382,020	May 1	211	56	43	552
Canting logs and operating saw-mill logs. Device for.	E. Beard	392,841	Nov. 13	987	253	45	792
Cap-threading machine.	P. Eley	380,208	Sept. 11	621	159	44	1197
Caps. Making.	J. Dornier and E. M. Marks	394,469	Dec. 11	1088	282	45	1287
Capsule-filler.	S. E. Heineman	385,138	Dec. 25	2192	564	45	1521
Capsule-machine.	E. Seger	375,776	Jan. 3	74	22, 23	42	19
Car. Aisle.	J. Stephenson	378,480	Feb. 28	1708	{ 450	} 42	853
					451		

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Disg.	Vol.	Page.
Car-alarm operator. Automatic	I. H. Hahn	383,524	May 29	2474	653	43	1018
Car and engine replacing frog	B. E. Tilden	383,779	May 29	2851	750	43	1095
Car and station. Passenger	A. K. Mansfield	386,331	July 17	1467	389	44	300
Car and track-raiser. Hand.	M. Lee	393,015	Nov. 20	1237	321	45	848
Car-bell strap	J. Armand	385,337	July 3	2	1	44	3
Car-bodies. Hanging	A. L. Féraud	389,374	Sept. 11	870	224	44	1246
Car-brake	E. E. Baker	384,978	May 1	127	30	43	538
Car-brake	B. Boyer	394,452	Dec. 11	1061	276	45	1282
Car-brake	H. Brockman	386,766	July 24	2097	551	44	432
Car-brake	J. H. Brown	384,507	June 12	1003	261	43	1319
Car-brake	T. H. Burridge	383,387	May 22	2249	598	43	970
Car-brake	G. P. Campbell	391,837	Oct. 30	2330	631	45	487
Car-brake	D. D. Chidester	376,582	Jan. 17	1208	319	42	247
Car-brake	J. J. Coates	388,262	Aug. 21	1659	443	44	907
Car-brake	A. E. Deibert	392,316	Nov. 6	199	52	45	632
Car-brake	S. Fairman	384,353	Apr. 17	1587	425	43	326
Car-brake	C. B. Fithian	387,219	Aug. 7	31	7	44	578
Car-brake	H. C. Fletmeyer	391,308	Oct. 16	1584	420	45	319
Car-brake	H. C. Fletmeyer	391,309	Oct. 16	1585	421	45	320
Car-brake	W. Heston	391,470	Oct. 23	1812	485	45	371
Car-brake	H. S. Hopper	393,561	Nov. 27	2034	533	45	1016
Car-brake	A. Kilpatrick	382,310	May 8	643	164	43	642
Car-brake	L. Kupferschmid	376,100	Jan. 10	526	140	42	112
Car-brake	C. W. Lanpher	386,639	July 24	1917	507 508	44	400
Car-brake	R. H. Littlefield	376,660	Jan. 17	1344	353	42	271
Car-brake	J. A. Marchbank	392,740	Nov. 13	831	211	45	761
Car-brake	F. W. Mills	381,570	Apr. 24	1913	504	43	407
Car-brake	M. B. Mills	381,571	Apr. 24	1915	505	43	407
Car-brake	M. B. Mills	387,434	Aug. 7	347	89	44	640
Car-brake	M. B. and F. W. Mills	376,898	Jan. 24	1713	449	42	350
Car-brake	J. Mutton	392,745	Nov. 13	835	212	45	732
Car-brake	A. F. Nell	380,049	Mar. 27	1783	476	42	1330
Car-brake	I. Nicholson	386,024	July 10	1012	269	44	206
Car-brake	G. G. Oldfield	386,342	July 17	1479	392	44	302
Car-brake	H. Ottenhouse	380,513	Oct. 2	448	116	45	91
Car-brake	E. H. Purdy	381,044	Apr. 10	1201	321	43	241
Car-brake	G. B. Quigg	383,904	June 5	83	24	43	1137
Car-brake	A. Reese	377,437	Feb. 7	138	31	42	521
Car-brake	A. Reese	377,438	Feb. 7	140	31	42	521
Car-brake	A. Reese	385,007	June 26	1750	453	43	1481
Car-brake	A. Reese	387,695	Aug. 14	759	193 194	44	724
Car-brake	J. H. Reynolds and G. Gerdon	393,722	Nov. 27	2272	596	45	1063
Car-brake	J. H. Robertson	384,870	June 19	1546	402	43	1431
Car-brake	A. C. Rogers	379,983	Mar. 27	1678	447	42	1311
Car-brake	J. W. Shotton and T. H. Barnes	392,829	Nov. 13	969	248 249	45	788
Car-brake	J. W. Sims	388,731	Aug. 28	2335	629	44	1042
Car-brake	J. S. Sterrett	382,013	May 1	193	50	43	549
Car-brake	W. A. Stoefel	395,012	Dec. 25	1996	515	45	1484
Car-brake	A. Swain	379,548	Mar. 13	997	267	42	1162
Car-brake	F. G. Taylor	386,940	July 31	2396	630	44	497
Car-brake	J. K. P. Timmons	375,841	Jan. 3	156	44	42	35
Car-brake	W. B. Turner	386,793	July 24	2145	563	44	441
Car-brake	J. Walsh	391,217	Oct. 16	1459	369	45	217
Car-brake	E. A. Wescott and E. R. Bristol	388,234	Aug. 21	1602	428 429	44	895
Car-brake	J. West	387,474	Aug. 7	405	106	44	651
Car-brake and starter	D. Knowlton	388,205	Aug. 21	1565	416	44	887
Car-brake and starter	T. Rhoads	391,818	Oct. 30	2299	623	45	481
Car-brake and starter	J. N. Williams	377,094	Jan. 31	1996	523 524	42	411
Car-brake. Automatic	T. De Coar and W. Keast	379,687	Mar. 20	1215	321 322	42	1211
Car-brake. Automatic	E. W. Luce	382,994	May 15	1642	430	43	846
Car-brake. Automatic	T. Tait	387,019	July 31	2508	659	44	519
Car-brake. Automatic	W. B. Turner	377,874	Feb. 14	806	206 207	42	663
Car-brake. Automatic	H. Wiedling	378,992	Mar. 6	191	52, 53	42	1003
Car-brake. Automatic	W. R. Wood, Sr	395,104	Dec. 25	2130	551	45	1511
Car-brake. Electric-railway	W. M. Schlesinger	378,980	Mar. 6	164	47	42	993
Car-brake. Electro-magnetic	A. P. Massey	382,766	May 15	1332	350	43	784
Car-brake. Railway	J. E. Robinson	393,587	Nov. 27	2070	541	45	1024
Car-buffer	F. A. Fox	390,958	Oct. 9	1067	281 282	45	215
Car-bumper	A. W. Van Dorston	378,532	Feb. 28	1780	470	42	868
Car-bumper. Spring	J. H. Benjamin	379,528	Mar. 13	968	261	42	1156
Car. Cable-railway	H. W. McNeill	379,407	Mar. 13	787	212	42	1121
Car-connection	A. Raymond	376,907	Jan. 24	1723	452 453	42	352
Car. Convertible freight	W. F. Mossop	381,410	Apr. 17	1671	448	43	342
Car-coupler	S. Burgess	394,755	Dec. 18	1558	407	45	1392
Car-coupler	E. J. Miller	389,525	Sept. 11	1089	289	44	1287
Car-coupler	L. A. Rudisill	376,967	Jan. 24	1801	474	42	367
Car-coupling	L. P. Alden	389,491	Sept. 11	1045	278	44	1278
Car-coupling	J. E. Allison	395,107	Dec. 25	2135	552	45	1512
Car-coupling	J. G. E. Armeah	384,671	June 19	1243	325	43	1374
Car-coupling	H. L. Arnold	378,228	Feb. 21	1340	354	42	774
Car-coupling	F. C. Bailey	376,131	Jan. 10	578	154 155	42	121
Car-coupling	C. L. Baittinger	384,554	June 12	1067	278	43	1331
Car-coupling	D. Baker	376,700	Jan. 17	1408	370	42	283
Car-coupling	H. L. and C. W. Banta	392,303	Nov. 6	180	46	45	628

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Car-coupling	N. Barr	387,485	Aug. 7	417	{ 109 110 }	44	654
Car-coupling	D. Bellon	390,944	Oct. 9	1044	276	45	211
Car-coupling	S. P. Bentley	391,732	Oct. 23	2163	584	45	441
Car-coupling	C. A. Bond	385,994	July 10	975	260	44	199
Car-coupling	J. Bonnd	388,815	Sept. 4	11	3, 4	44	1074
Car-coupling	W. L. Braddock	384,606	June 19	1147	303	43	1354
Car-coupling	W. F. Braun	377,289	Jan. 31	2275	601	42	406
Car-coupling	A. P. Brewster	385,789	July 10	682	178	44	141
Car-coupling	M. T. Broady	384,675	June 19	1248	329	43	1375
Car-coupling	G. F. Brown	377,882	Feb. 14	821	209	42	666
Car-coupling	M. W. Brown	385,638	July 3	486	125	44	94
Car-coupling	P. Brown	378,037	Feb. 14	1041	272	42	710
Car-coupling	P. Brown	378,038	Feb. 14	1042	272	42	711
Car-coupling	E. Buckley	394,954	Dec. 25	1907	493	45	1467
Car-coupling	W. Bunch	390,156	Sept. 25	2061	550	44	1493
Car-coupling	H. H. Burden	388,396	Aug. 28	1865	478	44	950
Car-coupling	A. W. Burnham	388,756	Aug. 28	2373	639	44	1049
Car-coupling	B. Bush	394,909	Dec. 18	1840	476	45	1445
Car-coupling	S. Byrne	385,500	July 3	252	64	41	51
Car-coupling	J. Carlson	388,948	Sept. 4	213	56	44	1113
Car-coupling	E. P. Carolan and P. H. Lee	392,104	Oct. 30	2735	{ 743 744 }	45	567
Car-coupling	S. C. Carroll	384,889	June 19	1571	409	43	1435
Car-coupling	W. R. Chadsey	384,018	June 5	258	74	43	1171
Car-coupling	W. R. Chadsey	387,766	Aug. 14	858	221	44	743
Car-coupling	W. C. Chamberlain	376,797	Jan. 24	1566	411	42	323
Car-coupling	J. W. Chisholm	390,345	Oct. 2	207	55	45	44
Car-coupling	G. W. Cisco	388,633	Aug. 28	2195	590	41	1015
Car-coupling	J. D. Clark	393,143	Nov. 20	1409	368	45	8-2
Car-coupling	J. M. Clark	387,395	Aug. 7	293	75	44	628
Car-coupling	J. Clarridge, Sr.	389,687	Sept. 18	1355	355	44	1313
Car-coupling	J. H. Conn and O. C. Pugh	386,915	July 31	2361	620	44	490
Car-coupling	C. R. Cook	385,505	July 3	250	66	41	52
Car-coupling	S. Cooley	393,693	Nov. 27	2237	587	45	1056
Car-coupling	J. Coup	384,193	June 5	521	{ 141 142 }	43	1222
Car-coupling	D. M. Cowher and J. L. Numer	378,163	Feb. 21	1233	324	42	753
Car-coupling	J. E. Craig	383,631	May 29	2615	692	43	1049
Car-coupling	C. G. Crosse	376,237	Jan. 10	726	193	42	149
Car-coupling	W. B. Crow and W. E. McMackin	379,563	Mar. 20	1025	274	42	1174
Car-coupling	W. M. Cutter	385,101	June 26	1900	484	43	1511
Car-coupling	S. E. Davidson	385,598	July 3	400	102	41	78
Car-coupling	D. B. Davis and J. J. Fisher	395,040	Dec. 25	2034	525	45	1491
Car-coupling	J. H. Davis	392,787	Nov. 13	912	233	45	776
Car-coupling	V. R. Davis	376,734	Jan. 24	1458	384	42	302
Car-coupling	G. W. Dawson and B. F. Cleveland	393,545	Nov. 27	2019	528	45	1013
Car-coupling	W. H. Dawson	378,194	Feb. 21	1272	337	42	761
Car-coupling	W. De Cew	381,914	May 1	23	6	43	519
Car-coupling	C. W. Deboard	386,060	July 10	1063	{ 284 285 }	44	217
Car-coupling	R. H. Dowling	379,888	Mar. 20	1540	406	42	1274
Car-coupling	R. H. Dowling	385,301	June 26	2205	565	43	1512
Car-coupling	R. H. Dowling	387,584	Aug. 7	595	155	41	6-6
Car-coupling	C. Eby	3-2,759	May 15	1322	348	41	782
Car-coupling	T. J. Eddleman	391,952	Oct. 30	2492	675	45	520
Car-coupling	C. S. Edwards	377,670	Feb. 7	494	125	42	586
Car-coupling	G. W. Edwards	380,280	Mar. 27	2006	560	42	1393
Car-coupling	R. J. Edwards	381,349	Apr. 17	1582	424	43	325
Car-coupling	J. V. D. Eldredge	380,874	Apr. 10	857	{ 231 232 }	43	177
Car-coupling	A. J. Elliott	392,596	Nov. 13	621	155	45	720
Car-coupling	S. Fairman	3-1,352	Apr. 17	1586	425	43	325
Car-coupling	J. H. Fields	383,517	May 29	2456	651	43	1015
Car-coupling	S. I. Fields	391,525	Oct. 23	1882	505	45	3-7
Car-coupling	A. G. W. Foster	390,766	Oct. 9	791	210	45	163
Car-coupling	C. E. Fox	387,062	July 31	2562	674	44	530
Car-coupling	F. A. Fox	381,312	June 12	704	187	43	1264
Car-coupling	L. M. Fox	394,165	Dec. 11	627	168	45	1201
Car-coupling	J. K. Freeman	377,746	Feb. 14	599	154	42	632
Car-coupling	S. J. Freeman	390,471	Oct. 2	368	99	45	80
Car-coupling	T. Gaskins	382,602	May 8	1105	284	43	730
Car-coupling	W. Gibboney, Jr.	391,140	Oct. 16	1333	361	45	275
Car-coupling	J. Goettel	388,956	Sept. 4	76	20	44	1087
Car-coupling	C. H. Grambs	394,567	Dec. 18	1255	328	45	1333
Car-coupling	P. C. Greenawalt	3-4,359	June 12	783	204	43	1277
Car-coupling	W. H. Griffith	386,582	July 24	1817	488	41	3-5
Car-coupling	G. A. Guice	394,357	Dec. 11	933	245	45	1360
Car-coupling	J. Haish	378,676	Feb. 28	1991	527	42	909
Car-coupling	F. Halbrook	387,352	Aug. 7	226	59	44	615
Car-coupling	T. E. Halls	379,781	Mar. 20	1350	360	42	1233
Car-coupling	E. M. and J. Q. Hamilton	384,840	June 19	1502	391	43	1423
Car-coupling	S. H. Harrington	376,713	Jan. 17	1425	374	42	287
Car-coupling	S. H. Harrington and J. Hannan	376,714	Jan. 17	1426	375	42	2-7
Car-coupling	L. H. Harris	383,729	May 29	2760	729	43	1078
Car-coupling	J. T. Haugh	386,818	July 31	2210	582	44	462
Car-coupling	I. Hazelton	378,311	Feb. 21	1460	381	42	795
Car-coupling	A. R. Heath	392,801	Nov. 13	930	238	45	780
Car-coupling	J. Helm	385,929	July 10	892	236	44	183
Car-coupling	J. Hendershot	376,244	Jan. 10	736	176	42	151
Car-coupling	J. A. Hinson	379,785	Mar. 20	1357	361	42	1240
Car-coupling	J. A. Hinson	389,510	Sept. 11	1069	284	44	1282
Car-coupling	O. P. Hix	387,416	Aug. 7	317	81	44	633
Car-coupling	J. G. Hornbarger	386,012	July 10	995	265	44	203



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Car-coupling	E. Houtz	381,575	June 12	1098	289	43	1337
Car-coupling	A. C. Howes	393,370	Nov. 27	1746	462	45	957
Car-coupling	E. Huber	376,093	Jan. 10	517	138	42	111
Car-coupling	O. Hughes	376,386	Jan. 10	928	243	42	186
Car-coupling	L. E. Huut	390,602	Oct. 2	562	149	45	113
Car-coupling	H. B. Johnson	388,777	Aug. 28	2407	649	44	1054
Car-coupling	E. P. Johnston	394,368	Dec. 11	949	219	45	1262
Car-coupling	P. A. Juge	386,203	July 17	129	339	44	264
Car-coupling	E. L. Keeler	385,185	June 26	2018	516	43	1535
Car-coupling	A. Keeperts	376,309	Jan. 10	822	217	42	167
Car-coupling	C. R. King, A. P. Aten, and W. B. Floyd	378,370	Feb. 21	1542	403	42	812
Car-coupling	J. Kroupa	380,684	Apr. 10	577	158	43	125
Car-coupling	D. Ladd	381,145	Apr. 17	1292	345	43	268
Car-coupling	B. F. Laird	380,208	Mar. 27	2000	535	42	1374
Car-coupling	W. Latimer	393,114	Nov. 20	1368	357	45	874
Car-coupling	S. S. Lehman	394,584	Dec. 18	1282	336	45	1338
Car-coupling	S. D. Locke	376,387	Jan. 10	929	213	42	186
Car-coupling	S. D. Locke	378,013	Feb. 14	1012	264	42	704
Car-coupling	M. J. Lorrain	392,044	Oct. 30	2620	715	45	547
Car-coupling	M. J. Lorraine	391,416	Oct. 23	1774	462	45	355
Car-coupling	M. J. Lorraine and C. T. Aubin. (Reissue.)	10,941	June 26	2259	578	43	1581
Car-coupling	J. F. Macer	380,399	Apr. 3	136	40	43	29
Car-coupling	J. B. McCray and D. E. Shado	378,702	Feb. 28	296	535	42	915
Car-coupling	A. J. McGee	376,482	Jan. 17	1571	240	42	230
Car-coupling	H. S. McKague	385,129	June 26	1737	495	43	1519
Car-coupling	T. W. McKee	376,412	Jan. 10	964	252	42	193
Car-coupling	T. L. McKeen	394,871	Dec. 18	1763	457	45	1432
Car-coupling	J. McMullen	377,631	Feb. 7	421	197	42	575
Car-coupling	F. L. McNab	385,868	July 10	83	213	41	164
Car-coupling	F. J. McQueen	379,177	Mar. 6	443	125	42	1050
Car-coupling	C. E. Michaud	379,803	Mar. 20	1387	368	42	1246
Car-coupling	J. S. Miller	390,389	Oct. 2	274	72	45	58
Car-coupling	J. T. Moore and W. H. Edwards	391,636	Oct. 23	2021	550	45	418
Car-coupling	B. B. Morgan	376,335	Jan. 10	863	226	42	174
Car-coupling	A. Müller	380,585	Apr. 3	422	130	43	86
Car-coupling	L. A. Neff	380,216	Mar. 27	2011	538	42	1376
Car-coupling	A. O. Nieldander	391,719	Oct. 23	2144	500	45	410
Car-coupling	E. A. Olmstead	377,532	Feb. 7	277	70	42	518
Car-coupling	R. M. Olmstead and J. V. Wenple	384,174	June 5	494	135	43	1217
Car-coupling	R. F. Osborn	393,446	Nov. 27	1849	487	45	978
Car-coupling	F. Ott	395,072	Dec. 25	2081	537	45	1502
Car-coupling	J. Z. Palm	375,891	Jan. 3	217	59, 60	42	46
Car-coupling	F. W. Parsons	385,000	June 26	1740	430	43	1479
Car-coupling	G. D. Pearson	377,770	Feb. 14	661	166	42	636
Car-coupling	G. W. Peto	387,916	Aug. 14	1090	288	41	789
Car-coupling	A. J. Pickard and G. Melson	392,968	Nov. 13	1162	301	45	826
Car-coupling	W. A. Post	393,660	Nov. 27	2189	574	45	1046
Car-coupling	J. Rancevan	382,730	May 15	1285	337	43	775
Car-coupling	F. M. Rariden	377,689	Feb. 7	512	131	42	591
Car-coupling	F. M. Rariden	390,095	Sept. 25	1972	555	44	1474
Car-coupling	W. M. Reed	379,331	Mar. 13	680	144	42	1100
Car-coupling	J. Rhule	387,999	Aug. 14	1220	321	44	915
Car-coupling	E. G. Ribault	389,107	Sept. 4	463	119	44	1139
Car-coupling	G. M. Robbins	383,999	June 5	222	66	43	1164
Car-coupling	G. M. Robbins	393,393	Nov. 27	1778	470	45	974
Car-coupling	W. Robinson	393,268	Nov. 20	1591	417	45	919
Car-coupling	L. Ross	393,343	Nov. 20	1690	449	45	940
Car-coupling	E. J. Roullie and L. A. Singier	381,033	Apr. 10	1108	266	43	224
Car-coupling	J. P. Runkel	376,164	Jan. 10	627	168	42	131
Car-coupling	W. O. Rutledge	384,217	June 5	555	133	43	1228
Car-coupling	H. Sabine	380,936	Apr. 10	955	253	43	195
Car-coupling	L. B. Sampson	382,390	May 8	774	196	43	666
Car-coupling	H. S. Sanders	385,204	June 26	2046	523	43	1510
Car-coupling	E. Savage	395,177	Dec. 25	2261	580	45	1531
Car-coupling	D. Schofield	378,265	Feb. 21	1391	364	42	782
Car-coupling	D. Schofield	391,277	Oct. 16	1546	409	45	312
Car-coupling	J. Scott	384,474	June 12	936	243	43	1307
Car-coupling	W. B. Seal	381,648	Apr. 21	2022	530	43	429
Car-coupling	T. Settle	391,651	Oct. 23	2051	555	45	423
Car-coupling	H. N. Sheffield and J. K. Jamison	391,487	Oct. 23	1833	491	45	376
Car-coupling	C. M. Shupe	376,213	Jan. 10	695	184	42	143
Car-coupling	I. Shotwell	389,669	Sept. 18	1334	319	44	1338
Car-coupling	L. Showalter	388,792	Aug. 28	2425	654	44	1059
Car-coupling	S. Shull	389,771	Sept. 18	1475	387	44	1367
Car-coupling	J. Shults	385,731	July 10	566	154	44	123
Car-coupling	J. Skinner	386,854	July 31	2268	597	41	472
Car-coupling	H. Sommerfeld	387,323	Aug. 7	18	49	44	607
Car-coupling	B. W. Sprague	393,084	Nov. 20	1329	347	45	866
Car-coupling	A. Story	377,811	Feb. 14	767	195	42	655
Car-coupling	G. Strader	386,790	July 24	2140	562	44	440
Car-coupling	A. Switzer	386,505	July 24	1735	458	44	365
Car-coupling	D. N. Tarbox	390,411	Oct. 2	300	79	45	64
Car-coupling	M. F. Ten Eyck	386,224	July 17	1324	350	44	273
Car-coupling	J. F. Thornton	378,409	Feb. 21	1600	420	42	823
Car-coupling	J. B. Thurston and F. R. Butterfield	378,269	Feb. 21	1395	366	42	783
Car-coupling	J. Timms	381,184	Apr. 17	1342	358	43	277
Car-coupling	G. W. Toler	383,781	May 29	2254	732	43	1095

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Car-coupling	J. P. Turney	388,231	Aug. 21	1597	{ 426 427	{ 41	894
Car-coupling	W. L. Uhlenhart	382,783	May 15	1360	357	43	789
Car-coupling	W. T. Van Dorn	378,813	Feb. 28	2190	583	42	946
Car-coupling	F. B. Von Alten	391,993	Oct. 30	2553	692	45	531
Car-coupling	J. Wadleigh	383,504	May 29	2442	647	43	1013
Car-coupling	E. Waldron	391,098	Oct. 16	1299	346	45	265
Car-coupling	J. E. Ward and J. A. Fallgatter	385,027	June 26	1781	460	43	1488
Car-coupling	H. W. Warner	387,025	July 31	2514	661	44	521
Car-coupling	H. W. Warner	393,492	Nov. 27	1933	506	45	993
Car-coupling	C. J. Warren	377,541	Feb. 7	290	73	42	551
Car-coupling	J. H. Weaver	390,827	Oct. 9	877	233	45	179
Car-coupling	J. P. Weber	391,828	Oct. 30	2314	628	45	484
Car-coupling	P. M. Wilder	394,745	Dec. 18	1546	404	45	1389
Car-coupling	J. G. Williams	380,709	Apr. 10	609	167	43	130
Car-coupling	J. T. Wilson	389,181	Sept. 4	582	147	44	1180
Car-coupling	J. T. Wilson	390,195	Sept. 25	2116	564	44	1504
Car-coupling	R. Wilson	384,732	June 19	1334	348	43	1390
Car-coupling	F. B. Wineland	380,070	Mar. 27	1808	453	42	1336
Car-coupling	P. L. Wood	391,572	Oct. 23	1944	521	45	401
Car-coupling	J. Wright	394,147	Dec. 4	600	161	45	1166
Car-coupling	W. H. Wrigley	375,973	Jan. 3	340	91	42	69
Car-coupling	E. R. Yauger	383,424	May 22	2308	612	43	990
Car-coupling	J. F. Zeigler	389,827	Sept. 18	1552	411	44	1383
Car-coupling, Automatic	E. Latham	378,068	Feb. 14	1083	224	42	719
Car-coupling device	W. N. Morrison	384,536	June 12	1042	271	43	1326
Car-couplings, Locking-lever for	F. W. Parsons	381,779	June 19	1401	366	43	1405
Car dash-cap, Tram	J. Stephenson	374,476	Feb. 28	1705	449	42	852
Car-door	T. J. Hickey	393,155	Nov. 20	1425	372	45	886
Car-door	W. J. Keyes	389,706	Sept. 18	1387	363	44	1349
Car-door	T. G. Ruffhead	382,243	May 1	533	136	43	611
Car-door	J. W. Shewmaker	386,611	July 24	1882	497	44	399
Car-door	J. C. Wands	382,917	May 15	1535	402	43	826
Car-door fastener	W. B. Heffner	394,571	Dec. 18	1260	329	45	1334
Car door, Freight	C. Hager	382,154	May 1	404	106	43	588
Car door, Grain	A. B. Taylor	385,021	June 26	1770	458	43	1486
Car-door hanger, Tram	J. Stephenson	378,474	Feb. 28	1703	448	42	851
Car-door hanging, Tram	J. Stephenson	378,472	Feb. 28	1702	447	42	850
Car-door holder, Freight	S. E. Henry	394,924	Dec. 18	1864	482	45	1450
Car-door operator, Tram	J. Stephenson	378,475	Feb. 28	1704	{ 448 449	{ 42	851
Car-door, Safety	H. L. Renne	377,330	Jan. 31	2332	677	42	475
Car doors, Grain	J. Jensen	377,385	Feb. 7	31	9	42	501
Car, Dump	L. J. Lewis	390,867	Oct. 9	932	{ 245 246	{ 45	189
Car, Dump	J. Odorizzi	384,708	June 19	1307	341	43	1385
Car, Dumping	C. E. Barber and T. F. Finigan	387,618	Aug. 14	648	168	44	703
Car, Dumping	F. Cote	377,424	Feb. 7	120	25	42	517
Car, Dumping	G. H. Griggs	383,463	May 29	2369	630	43	1060
Car, Dumping	W. Heathcock	393,009	Nov. 20	1329	319	45	846
Car, Dumping	J. M. Hughes and J. D. Williams	378,368	Feb. 21	1540	{ 402 403	{ 42	812
Car, Dumping	J. W. Nesmith	382,708	Aug. 28	2307	620	44	1035
Car-dumping device	D. T. Denton	390,350	Oct. 2	216	57	45	46
Car, Electric-motor	W. H. Knight	377,622	Feb. 7	466	102	42	573
Car, Electric-railway	E. Julien	384,581	June 12	1110	{ 293 294	{ 43	1339
Car, Electric tram	J. T. Van Gestel	388,514	Aug. 28	2022	544	44	982
Car, Electrically-driven	J. Weis	387,610	Aug. 7	634	164	44	694
Car, Express	J. W. Post	377,774	Feb. 14	666	{ 167 168	{ 42	637
Car-floor frame	J. Plattenburg	379,978	Mar. 27	1674	446	42	1310
Car for bicycle-railways, Freight	E. M. Boynton	393,961	Dec. 4	331	90	45	1135
Car for electric railways, Motor	L. W. Heysinger	391,793	Oct. 30	2260	613	45	473
Car for elevated roads, Railway	E. M. Boynton	394,092	Dec. 4	521	140	45	1171
Car, Freight	P. Brown	382,655	May 15	1230	320	43	764
Car, Freight	H. L. P. C. Hartmann	393,229	Nov. 20	1533	461	45	908
Car, Freight	H. V. Lucas	378,602	Feb. 28	1870	497	42	887
Car-gate, Folding	G. E. Adams	389,867	Sept. 25	1635	433	44	1405
Car, Gondola	J. L. Stagg	375,780	Jan. 3	81	25	42	20
Car, Hand	D. Chapel	377,352	Jan. 31	2368	624	42	481
Car, Hand	A. K. Mansfield	376,604	Jan. 17	1244	326	42	254
Car-heater	J. and G. F. Allen	386,734	July 24	2352	541	44	424
Car-heater	E. Andrews	384,599	June 19	1139	361	43	1353
Car-heater	W. P. Bending	382,507	May 8	953	241	43	701
Car-heater	J. D. Campbell	383,513	May 29	2450	649	43	1014
Car-heater	G. W. Carter and W. T. Pickett	388,180	Aug. 21	1531	408	44	880
Car-heater	E. Collins	390,649	Oct. 9	628	{ 167 168	{ 45	133
Car-heater	D. Connell	379,101	Mar. 6	353	160	42	1032
Car-heater	C. S. Dean	392,147	Oct. 30	2800	{ 760 761	{ 45	580
Car-heater	G. M. Edwards	390,953	Oct. 9	1054	278	45	213
Car-heater	J. H. Elward	383,115	May 22	1860	486	43	898
Car-heater	L. G. Gilbert	394,354	Dec. 11	927	244	45	1250
Car-heater	L. G. Gilbert and M. W. Long	377,934	Feb. 14	698	231	42	683
Car-heater	E. Henn	385,932	July 10	876	238	44	113
Car-heater	F. C. McElroy	384,055	June 5	318	91	43	1181
Car-heater	P. F. McGee	380,044	Mar. 27	1773	474	42	1328
Car-heater	J. G. Philips	391,073	Oct. 16	1261	335	45	259
Car-heater	P. J. Sensabaugh	392,464	Nov. 6	439	107	45	675
Car-heater	J. W. Storms	383,835	May 29	2038	777	43	1111
Car-heater	C. E. Struck	383,417	May 22	2296	{ 600 610	{ 43	978
Car-heater	F. Trowbridge	381,512	Apr. 17	1829	483	43	373

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Car-heater .....	J. Wardle .....	380,066	Mar. 27	1804	482	42	1335
Car-heater .....	R. Whelan .....	387,937	Aug. 14	1125	{ 300 301 }	41	796
Car-heater .....	C. W. Wiecking, Jr. ....	381,490	Apr. 17	1792	477	43	365
Car-heater and lamp-extinguishing apparatus .....	A. C. Smith, E. E. Weir, F. R. Carson, and F. H. Weir.	379,995	Mar. 27	1697	453	42	1314
Car heater and lighter .....	L. E. Truesdell .....	380,411	Apr. 3	153	44	43	32
Car-heater grates. Support for .....	W. C. Baker .....	380,544	Apr. 3	361	103	43	71
Car heater. Railway .....	J. R. Lanning and J. Young .....	387,956	Aug. 14	1156	313	44	802
Car heater. Railway .....	T. M. Morton .....	388,065	Aug. 21	1321	357	44	842
Car heater. Railway .....	A. R. Thompson .....	385,534	July 3	304	78	44	61
Car-heaters and car-lamps. Safety attachment for .....	G. F. Seaver .....	388,590	Aug. 28	2133	573	44	1003
Car-heaters, brakes, &c. Coupling and cut-off for steam and air pipes for .....	J. Briscoe .....	378,284	Feb. 21	1423	372	42	788
Car-heaters. Protector for .....	J. A. Miller .....	390,182	Sept. 25	2099	559	44	1499
Car-heaters. Safety-casing for .....	A. Bell .....	383,034	May 15	1721	448	43	862
Car heating and ventilating apparatus .....	J. T. Earnest .....	382,956	May 15	1591	415	43	836
Car-heating apparatus .....	F. J. Crouch .....	380,247	Mar. 27	2055	549	42	1385
Car-heating apparatus .....	C. H. Horton .....	391,413	Oct. 23	1729	461	45	355
Car-heating apparatus .....	T. B. Howe .....	386,332	July 17	1457	385	44	298
Car-heating apparatus .....	J. H. Sewall .....	392,828	Nov. 13	966	248	45	787
Car-heating apparatus .....	W. F. Steele .....	384,401	June 12	841	219	43	1289
Car-heating apparatus .....	D. J. Timlin and Q. B. Heidinger .....	387,124	July 31	2670	699	44	547
Car-heating apparatus. Railway .....	E. A. Leland .....	384,452	June 12	912	237	43	1303
Car-heating apparatus. Street .....	M. Cleave .....	384,126	June 5	421	117	43	1201
Car-heating device. Street .....	J. J. Sands .....	395,081	Dec. 25	2093	{ 542 543 }	45	1505
Car-heating furnace .....	H. G. Wilson and J. Noble .....	376,463	Jan. 17	1048	574	42	215
Car-heating system. Auxiliary .....	W. Buchanan .....	394,456	Dec. 11	1065	{ 277 278 }	45	1283
Car-heating. System of .....	C. L. Kline .....	387,722	Aug. 14	801	207	44	732
Car. Hopper-bottom freight .....	F. L. Joy .....	380,287	Mar. 27	2104	563	42	1395
Car lamp-house. Tram .....	J. Stephenson .....	378,469	Feb. 28	1698	446	42	849
Car-lighting .....	C. R. Arnold .....	376,423	Jan. 17	989	259	42	205
Car-lighting. Application of electricity to .....	C. A. Fano .....	379,567	Mar. 20	1036	276	42	1177
Car-link. Automatic .....	F. S. Frischeis .....	383,553	May 29	2348	625	43	995
Car-link. Self-coupling .....	G. J. Wardwell and A. Landon .....	379,621	Mar. 20	1117	296	42	1192
Car-loader .....	W. H. Jennings .....	388,494	Aug. 28	1998	537	44	978
Car lock. Freight .....	E. C. Smith .....	387,371	Aug. 7	264	67	44	623
Car. Lorging .....	M. Wilbur .....	387,477	Aug. 7	408	107	44	652
Car-marker .....	E. C. Blatt .....	391,679	Oct. 23	2066	565	45	429
Car. Motor .....	P. J. McMahon .....	379,119	Mar. 6	377	107	42	1036
Car-motor .....	O. P. Sanders .....	379,129	Mar. 6	387	110	42	1039
Car motor. Railway .....	W. M. McDougall .....	387,726	Aug. 14	808	{ 208 209 }	44	733
Car motor. Steam street .....	W. Vogel .....	381,192	Apr. 17	1351	{ 361 362 }	43	279
Car motor. Street .....	T. H. Burridge .....	393,207	Nov. 20	1505	394	45	902
Car motor. Street .....	L. B. Gibson .....	381,145	June 5	449	124	43	1207
Car motor. Street .....	L. B. Gibson .....	384,146	June 5	451	125	43	1208
Car motor. Street .....	L. B. Gibson .....	381,147	June 5	452	125	43	1208
Car motor. Street .....	L. B. Gibson .....	384,148	June 5	453	125	43	1208
Car motor. Street .....	I. Hodgson .....	394,572	Dec. 18	1261	{ 330 331 }	45	1334
Car motor. Street .....	J. Kahn .....	385,631	July 3	449	116	44	87
Car motor. Street .....	W. S. Salisbury .....	394,015	Dec. 4	407	{ 109 110 }	45	1149
Car-mover .....	J. Bird .....	384,502	June 12	998	260	43	1318
Car-mover .....	M. F. Connett .....	389,689	Sept. 18	1357	356	44	1343
Car-mover .....	G. S. Currier .....	382,757	May 15	1320	347	43	782
Car-mover .....	A. L. Dornay .....	394,254	Dec. 11	768	203	45	1226
Car-mover .....	L. B. Gifford .....	387,871	Aug. 14	1006	262	44	773
Car-mover .....	O. E. Rose .....	389,660	Sept. 18	1222	319	44	1317
Car-mover .....	A. L. Wiley .....	394,628	Dec. 18	1354	354	45	1350
Car. Passenger .....	W. D. Mann .....	377,628	Feb. 7	416	106	42	574
Car. Passenger .....	C. H. Whitte .....	389,728	Sept. 18	1421	371	44	1356
Car-platform .....	W. E. McMackin and W. B. Crow .....	389,550	Sept. 18	1138	299	44	1303
Car-platform .....	T. W. Moore .....	381,622	Apr. 10	1085	288	43	219
Car-platform .....	J. M. Taggart .....	395,014	Dec. 25	1999	516	45	1484
Car-platform. Metallic .....	B. W. F. La Mothe .....	391,164	Oct. 16	1387	369	45	281
Car. Poultry .....	W. P. Jenkins .....	384,913	June 19	1601	{ 416 417 }	43	1442
Car. Poultry .....	J. Moran .....	375,764	Jan. 3	58	17	42	15
Car-pushing machine .....	R. Lukius .....	376,670	Jan. 17	1358	356	42	274
Car. Railway .....	T. A. Bissell .....	389,358	Sept. 11	846	{ 216 217 }	44	1242
Car. Railway .....	T. A. Bissell and C. Bergman .....	389,359	Sept. 11	848	{ 217 218 }	44	1242
Car. Railway .....	T. A. Bissell and C. Bergman .....	389,437	Sept. 11	972	260	44	1265
Car. Railway .....	J. A. Brill .....	378,428	Feb. 28	1632	{ 428 429 }	42	836
Car. Railway .....	C. A. Davis .....	375,989	Jan. 3	360	96, 97	42	74
Car. Railway .....	C. A. Davis .....	383,712	May 29	2733	721	43	1074
Car. Railway .....	T. S. E. Dixon .....	384,828	June 19	1481	386	43	1419
Car. Railway .....	H. C. Gross .....	378,675	Feb. 28	1990	527	42	908
Car. Railway .....	W. Klinker .....	390,865	Oct. 9	929	245	45	188
Car. Railway .....	A. M. Leinwather .....	393,709	Nov. 27	2256	592	45	1059
Car. Railway .....	C. W. Littlefield .....	384,987	June 26	1708	443	43	1471
Car. Railway .....	J. C. Love and J. F. Snediker .....	381,396	Apr. 17	1649	{ 439 440 }	43	338
Car. Railway .....	H. Niehoff .....	382,434	May 8	833	213	43	678
Car. Railway .....	G. M. Pullman .....	383,067	May 15	1778	460	43	872
Car. Railway .....	C. M. Smith. (Reissue) .....	10,955	Aug. 28	2448	{ 660 661 }	44	1063

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Car. Railway.....	J. W. Thomas.....	380,705	Apr. 10	601	{ 165 166 }	43	129
Car. Railway.....	E. Verstraete.....	386,512	July 24	1748	462	44	367
Car-replacer and portable switch.....	T. Holliday.....	377,155	Jan. 31	2072	544	42	428
Car-road. Street.....	W. M. Eccles.....	377,930	Feb. 14	889	229	42	680
Car-roof. Tram.....	J. Stephenson.....	378,470	Feb. 28	1699	446	42	850
Car-router.....	J. H. Cook.....	390,283	Oct. 2	117	33	45	26
Car. Safety.....	F. E. L. Woodward.....	383,845	May 29	2951	781	43	1113
Car. Safety express.....	S. Workman.....	385,306	July 3	82	23, 24	44	18
Car sash-rail. Tram.....	J. Stephenson.....	378,471	Feb. 28	1701	447	42	850
Car-seat.....	L. A. Brown and V. S. Ketchum.....	378,655	Feb. 28	1055	519	42	902
Car-seat.....	J. O. Buerk.....	380,686	Sept. 18	1354	355	44	1342
Car-seat.....	H. S. Hale.....	384,153	June 5	461	127	43	1210
Car-seat.....	H. S. Hale.....	388,412	Aug. 28	1885	504	44	954
Car-seat.....	F. H. Henry.....	378,546	Feb. 28	1801	476	42	872
Car-seat.....	R. M. Hunter.....	389,514	Sept. 11	1075	{ 285 286 }	44	1284
Car-seat arm. Detachable.....	J. A. Gohen.....	383,726	May 29	2758	727	43	1078
Car-seat. Reversible.....	W. B. Luce.....	377,205	Jan. 31	2145	{ 566 567 }	42	442
Car-seat. Reversible.....	W. Sutton.....	389,174	Sept. 4	571	144	44	1177
Car seat. Street.....	G. A. Metcalf.....	392,876	Nov. 13	1031	264	45	801
Car-seat. Supplemental.....	J. H. Young.....	389,041	Sept. 4	342	89, 90	44	1137
Car-seats. Reversible back for.....	J. P. Doyle.....	387,404	Aug. 7	303	78	44	630
Car signal. Railway.....	C. P. Larned and R. V. R. Sill.....	388,420	Aug. 28	1897	{ 506 507 }	44	957
Car. Sleeping.....	F. S. Tull.....	389,344	Sept. 11	598	211	44	1238
Car-spring.....	N. H. Davis.....	385,917	July 10	877	232	44	180
Car-spring.....	N. H. Davis.....	390,069	Sept. 25	1928	508	44	1465
Car-spring.....	T. C. Davis.....	385,918	July 10	878	232	44	180
Car-spring.....	C. T. Schoen.....	378,264	Feb. 21	1390	364	42	7-2
Car-spring plates. Die for making.....	N. H. Davis.....	378,773	Feb. 28	2118	{ 559 560 }	42	932
Car-spring plates. Making.....	C. T. Schoen.....	379,544	Mar. 13	991	266	42	1161
Car spring. Railway.....	B. J. La Mothe.....	385,061	June 26	1843	472	43	1498
Car-starter.....	C. H. Brown.....	390,443	Oct. 2	345	91	45	73
Car-starter.....	R. O. Gercke.....	385,800	July 10	695	121	44	143
Car-starter.....	J. Gilmore and W. R. Clark.....	376,875	Jan. 24	1682	439	42	343
Car-starter.....	G. B. Haines.....	393,827	Dec. 4	131	36, 37	45	1097
Car-starter.....	H. H. Holmes.....	380,260	Mar. 27	2069	553	42	1388
Car-starter.....	H. R. Keller.....	384,368	June 12	769	208	43	1280
Car-starter.....	J. M. Linscott.....	381,393	Apr. 17	1644	438	43	337
Car-starter.....	J. O'Neill.....	377,113	Jan. 31	2024	530	42	416
Car-starter.....	J. H. Parmelee.....	387,807	Aug. 14	912	{ 236 237 }	44	754
Car-starter.....	J. H. Pendleton.....	387,914	Aug. 14	1087	288	44	788
Car-starter.....	H. P. Wayman.....	376,356	Jan. 10	890	233	42	179
Car-starter.....	J. Zeff.....	381,612	Apr. 24	1964	517	43	418
Car starter and brake.....	J. Heimlich.....	380,681	Apr. 10	574	157	43	124
Car starter and brake.....	A. Jeemel.....	386,923	July 31	2375	{ 681 681 }	44	493
Car starter and brake. Combined.....	C. Kieser.....	392,345	Nov. 6	250	64	45	642
Car. Steam street.....	W. E. Wilcox.....	391,350	Oct. 16	1638	{ 433 434 }	45	329
Car-step.....	F. A. Stanwood.....	385,017	June 26	1765	456	43	1424
Car-step. Adjustable.....	W. Neumaun.....	383,588	May 29	2556	676	43	1035
Car step. Railway.....	W. P. Tracy.....	379,140	Mar. 6	403	114	42	1042
Car. Stock.....	H. Arns.....	382,934	May 15	1559	408	43	830
Car. Stock.....	W. A. Bernard and B. W. Rhodes.....	382,405	May 8	792	{ 201 202 }	43	669
Car. Stock.....	G. D. Burton.....	376,729	Jan. 21	1451	321	42	301
Car. Stock.....	G. D. Burton.....	391,579	Oct. 23	1955	{ 527 528 }	45	403
Car. Stock.....	J. B. Culkins.....	382,456	May 8	875	223	43	685
Car. Stock.....	J. F. Elder.....	384,832	June 19	1486	387	43	1420
Car. Stock.....	C. Hager.....	388,671	Aug. 28	2250	603	44	1024
Car. Stock.....	C. Langguth.....	380,725	Apr. 10	632	{ 173 174 175 }	43	135
Car. Stock.....	W. H. Miller and N. Z. Seitz.....	382,238	May 1	525	{ 134 135 }	43	610
Car. Stock.....	J. Montgomery.....	387,246	Aug. 7	69	16	44	585
Car. Stock.....	W. W. Myers.....	391,759	Oct. 23	2194	{ 502 503 }	45	451
Car. Stock.....	R. H. Ripley.....	377,959	Feb. 14	934	243	42	090
Car. Stock.....	R. H. Ripley.....	384,931	June 19	1624	492	43	1446
Car. Stock.....	N. Z. Seitz.....	380,600	Apr. 3	445	135	43	90
Car. Stock.....	N. Z. Seitz.....	380,634	Apr. 3	491	138	43	100
Car. Stock.....	L. R. Stiles.....	382,843	May 15	1433	377	43	805
Car. Stock.....	R. Wills.....	390,935	Oct. 9	1033	{ 272 273 }	45	209
Car-stop.....	W. Walker.....	392,767	Nov. 13	877	224	45	770
Car. Street.....	J. W. Evans.....	384,918	May 1	28	8	43	520
Car-switch. Automatic.....	J. R. Potter.....	381,949	May 1	71	18	43	528
Car. Tram.....	O. Blessing.....	391,774	Oct. 30	2217	{ 600 601 }	45	466
Car-transferring apparatus.....	R. Robinson.....	377,117	Jan. 31	2029	531	42	418
Car-uncoupling device.....	W. O. Rutledge.....	394,301	Dec. 11	844	224	45	1241
Car-unloader.....	H. M. Barnhart.....	384,111	June 5	388	109	43	1195
Car-unloading machine.....	J. Scully.....	394,727	Dec. 18	1513	{ 395 396 }	45	1383
Car-ventilator.....	W. Ballman.....	375,721	Jan. 3	1	1	42	3
Car-ventilator.....	J. Hutton.....	380,440	Apr. 3	196	54	43	40
Car-ventilator.....	H. Lindsey.....	391,324	Oct. 16	1604	425	45	323

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Car-ventilator.....	C. P. Weiss.....	390,828	Oct. 9	878	233	45	179
Car-ventilator.....	W. Wright.....	384,184	June 5	507	139	43	1219
Car. Vestibule.....	N. P. Cowell.....	394,339	Dec. 11	904	238	45	1254
Car. Vestibule.....	N. P. Cowell.....	394,340	Dec. 11	906	238 239	45	1254
Car. Vestibule.....	T. E. Thompson.....	394,313	Dec. 11	862	228	45	1246
Car-vestibules. Equalizer for.....	H. H. Sessions.....	383,019	May 15	1698	441	43	857
Car warmer. Street.....	G. A. Beach.....	390,154	Sept. 25	2058	549 550	44	1492
Car-wheel.....	H. R. Allen.....	383,846	June 5	1	1	43	1121
Car-wheel.....	W. H. Brown.....	387,209	Aug. 7	20	4	44	576
Car-wheel.....	L. M. Bullitt.....	387,855	Aug. 14	982	256	44	768
Car-wheel.....	F. P. Davidson.....	376,865	Jan. 21	1670	436	42	341
Car-wheel.....	G. G. Lohdell.....	378,844	Feb. 28	2248	598	42	937
Car-wheel.....	F. G. Myers.....	384,924	June 19	1617	420	43	1445
Car-wheel.....	E. Peckham.....	376,721	Jan. 17	1437	378	42	900
Car-wheel.....	E. Peckham.....	376,722	Jan. 17	1438	378	42	900
Car-wheel.....	E. Peckham.....	376,723	Jan. 17	1440	379	42	900
Car-wheel.....	E. Peckham.....	376,724	Jan. 17	1441	379	42	901
Car-wheel.....	W. G. Richards.....	383,989	June 5	219	65	43	1163
Car-wheel.....	W. G. Richards.....	387,813	Aug. 14	922	239	44	756
Car-wheel.....	S. W. Tanner.....	394,312	Dec. 11	861	228	45	1245
Car-wheel.....	L. A. Thompson.....	379,254	Mar. 13	565	157	42	1078
Car-wheel.....	J. N. Welky.....	388,096	Aug. 21	1375	371	44	852
Car-wheel.....	N. Wright.....	391,729	Oct. 23	2155	583	45	443
Car wheel and axle.....	J. H. Smith.....	390,811	Oct. 9	854	227	45	175
Car-wheel. Cast-steel.....	R. Bagaley and W. Hainsworth.....	389,787	Sept. 18	1499	395	44	1373
Car-wheel flask.....	J. J. Carr.....	393,615	Nov. 27	2123	555	45	1033
Car-wheels. Machine for truing.....	R. Bagaley.....	377,224	Jan. 31	2172	573	42	447
Car-wheels. Making.....	J. Munton.....	390,695	Oct. 9	691	184	45	145
Car-window.....	W. H. Dawson.....	387,403	Aug. 7	302	77	44	630
Car window. Tram.....	J. Stephenson.....	378,473	Feb. 28	1702	447 448	42	851
Cars. Air-brake for railway.....	T. S. E. Dixon.....	382,032	May 1	234	60, 61	43	556
Cars. Air-heating device for.....	L. P. Converse.....	383,171	May 22	1932	506 507	43	912
Cars. Air or steam coupling for railway.....	M. D. Stocking.....	395,089	Dec. 25	2103	545	45	1507
Cars. Apparatus for automatically extinguishing fires and lamps and operating the brakes on railway.....	D. B. Mills and S. W. Koeller.....	389,236	Sept. 11	670	172	44	1207
Cars. Apparatus for heating.....	T. H. Bottomley.....	387,206	Aug. 7	16	3	44	575
Cars. Apparatus for heating and lighting railway.....	W. Wilson.....	393,599	Nov. 27	2092	548	45	1027
Cars. Apparatus for heating railway.....	W. Flanagan.....	375,738	Jan. 3	25	8	42	8
Cars. Apparatus for heating railway.....	W. H. Plumb.....	383,247	May 22	2041	536	43	934
Cars. Apparatus for preventing fires and extinguishing lights in railway.....	H. M. Young.....	376,699	Jan. 17	1403	369	42	2-2
Cars. Apparatus for propelling.....	L. Paget.....	393,572	Nov. 27	2046	536 537	45	1019
Cars. Appliance for railway.....	J. Goodfellow.....	383,456	May 29	2355	627	43	996
Cars around curves of cable railways. Apparatus for moving.....	W. A. Phillips.....	386,654	July 24	1946	514	44	405
Cars. Attachment for railway.....	J. H. Williams.....	388,100	Aug. 21	1382	372	41	853
Cars. Automatic air-supply for propelling.....	L. C. Pressley.....	383,826	May 29	2924	772	43	1109
Cars. Automatic electric gas cut-off for railway.....	F. C. Brower.....	384,676	June 19	1250	329	43	1375
Cars. Automatic fan for.....	J. Sands.....	394,402	Dec. 11	996	261	45	1271
Cars. Automatic pipe-coupling for railway.....	W. F. Grassler.....	382,288	May 22	2108	557	43	945
Cars. Automatic station-indicator for railway.....	T. W. Munroe.....	388,371	Aug. 21	1833	487	44	938
Cars. Bearing for street.....	H. L. Phelps.....	384,782	June 19	1402	367	43	1405
Cars. Bell-cord for.....	W. Glasgow and S. S. Stevens.....	379,459	Mar. 13	864	233 234	42	1137
Cars. Bullet-proof case for railway.....	B. F. Dettra and J. C. Shields.....	376,736	Jan. 24	1459	385	42	303
Cars by electrical energy. Apparatus for the propulsion of.....	A. H. Baner.....	378,864	Mar. 6	6	2	42	968
Cars by electricity. Apparatus for lighting railway.....	I. A. Timmis and S. C. C. Currie.....	383,502	May 29	2438	647	43	1042
Cars by electricity. Device for lighting and heating.....	D. C. Roberts.....	385,774	July 10	661	173 174	44	137
Cars by electricity. Lighting.....	A. D. Stevens.....	376,116	Jan. 10	547	146	42	116
Cars by electro-chemical means. Heating railway.....	E. E. Ries.....	381,819	Apr. 24	2280	594 595	43	477
Cars. Cable-grip for railway.....	J. H. Pendleton.....	387,906	Aug. 14	1065	281 282	44	783
Cars. Cable-railway system for street.....	A. G. Bierbach.....	378,918	Mar. 6	81	24	42	962
Cars. Changeable signal-light for railway.....	W. S. Adams.....	391,008	Oct. 16	1157	307	45	239
Cars. Circulatory heating system for.....	J. H. Sowell.....	393,035	Nov. 20	1268	338	45	854
Cars, &c. Construction of.....	H. C. Hodges.....	375,998	Jan. 3	372	99 100	42	76
Cars. Construction of railway.....	F. G. Caldwell.....	391,296	Oct. 16	1570	417	45	316
Cars. Coupling device for street.....	F. A. Pierce.....	388,506	Aug. 28	2012	541	44	980
Cars. Current-receiver for electric-railway.....	J. A. Enes.....	386,581	July 24	1816	488	44	383
Cars. Device for derailing.....	G. H. Gere.....	383,723	May 29	2755	726	43	1077
Cars. Die for forging truss-rod anchors for railway.....	J. Reilly.....	395,173	Dec. 25	2252	578	45	1332
Cars. Die for making stake-pockets for.....	C. T. Schoen.....	381,175	Apr. 17	1332	356	43	275
Cars. Distance-indicator for railway.....	S. Lightburne, Jr.....	393,249	Nov. 20	1562	409 410	45	914
Cars. Draft-timber for.....	J. B. Owens.....	384,588	June 12	1118	295	43	1340
Cars. Draw-bar for tram.....	J. Stephenson.....	378,479	Feb. 28	1708	450	42	853
Cars. Draw-gear for railway.....	C. H. Starr.....	382,840	May 15	1428	375	43	894
Cars. Draw-gear for street.....	J. W. Evans.....	377,895	Feb. 14	743	188	42	650
Cars. Draw-gear for street.....	B. McDewitt.....	379,587	Mar. 20	1068	284	42	1182
Cars. Draw-head for railway.....	J. J. Knight.....	388,882	Sept. 4	114	30	44	1094
Cars. Draw-head for street.....	J. Lehmann and D. McAllister.....	394,777	Dec. 18	1607	422	45	1402
Cars. Draw-head hook for tram.....	J. Stephenson.....	378,478	Feb. 28	1707	450	42	852
Cars. Driving mechanism for electric-railway.....	E. E. Ries.....	386,083	July 10	1098	294 295	44	224



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Cars. Electric heating apparatus for railway.....	E. E. Ries .....	381,816	Apr. 24	2264	{ 591 592 }	43	475
Cars. Electric-lighting apparatus for railway.....	H. E. Dey .....	381,915	May 1	25	7	43	519
Cars. Electric motor for railway.....	W. M. McDougall .....	382,483	May 8	919	233	43	693
Cars. Electric motor for street.....	W. S. Salisbury .....	385,727	July 10	589	153	44	122
Cars. Electric signal for railway.....	J. R. De Mier .....	380,647	Apr. 3	507	142	43	103
Cars. Equalizing device for.....	H. J. Tate .....	387,827	Aug. 14	942	244	44	761
Cars. Extension-step for railway.....	J. Solatinow .....	387,374	Aug. 7	268	68	44	624
Cars. Feed-trough for stock.....	G. D. Burton .....	390,564	Oct. 2	519	136	45	104
Cars. Fender for street.....	L. Hachenberg .....	394,975	Dec. 25	1943	501	45	1474
Cars. Folding step for.....	A. J. Barber .....	382,679	May 15	1219	316	43	761
Cars. Frame for railway.....	M. A. Zurcher .....	384,225	June 5	568	156	43	1231
Cars. Friction-brake for cable-railway.....	L. M. Hosea .....	379,015	Mar. 6	225	60	42	1009
Cars. Grip and brake gear of cable tram.....	N. H. Richards .....	387,920	Aug. 14	1095	{ 229 290 }	44	790
Cars. Grip for cable-railway.....	B. L. Harris .....	375,997	Jan. 3	370	99	42	75
Cars. Grip for cable-railway.....	B. L. Harris .....	394,539	Dec. 11	1191	310	45	1306
Cars. Grip for cable-railway.....	J. H. Pendleton .....	387,911	Aug. 14	1080	286	44	787
Cars. Grip for cable-railway.....	J. H. Pendleton .....	387,912	Aug. 14	1082	{ 286 287 }	44	787
Cars. Grip for tram.....	D. T. Denton .....	376,587	Jan. 17	1217	321	42	249
Cars. Gripper actuated by hydraulic pressure for cable-railway.....	C. L. Snyder .....	380,224	Mar. 27	2022	541	42	1378
Cars. Gripper for cable-railway.....	C. L. Snyder .....	393,181	Nov. 20	1457	381	45	892
Cars. Hay-rack for stock.....	E. A. Stare, J. H. Diers, and J. L. Bicket .....	392,644	Nov. 13	692	174	45	733
Cars. Head and back rest for railway.....	H. B. Smith .....	380,460	Apr. 3	227	62	43	46
Cars. Head-rest for sleeping.....	T. A. Bissell .....	378,948	Mar. 6	123	36	42	990
Cars. Head-rest for sleeping.....	J. Kirby, Jr. ....	391,748	Oct. 23	2181	589	45	448
Cars. Heater for railway.....	R. M. Dixon .....	379,691	Mar. 20	1222	324	42	1212
Cars. Heater for railway.....	H. B. Frisbie and R. J. McAuley .....	387,538	Aug. 7	550	142	44	678
Cars. Heating and cooling railway.....	H. Penoyer .....	390,701	Oct. 9	698	186	45	147
Cars. Heating and lighting.....	T. Saunders and W. H. Patton .....	394,018	Dec. 4	412	111	45	1150
Cars. Heating railway.....	E. B. Benham .....	381,754	Apr. 24	2175	569	43	458
Cars. Heating railway.....	W. A. Lyon and S. L. Moore .....	387,173	July 31	2735	718	44	559
Cars. Heating railway.....	W. M. Scott .....	381,647	Apr. 24	2021	530	43	429
Cars. Heating railway.....	C. Taylor .....	383,390	May 22	2228	591	43	967
Cars. Heating railway.....	C. S. Townley .....	383,839	May 29	2943	779	43	1112
Cars. Heating system for railway.....	J. Emerson .....	383,637	May 29	2623	{ 694 695 }	43	1051
Cars. Horse-guard for tram.....	J. Stephenson .....	379,496	Mar. 13	927	249	42	1148
Cars. Indicator for street.....	F. Hicks .....	380,799	Apr. 10	748	205	43	157
Cars. Link and pin holder for.....	C. L. Ward .....	384,635	June 19	1215	321	43	1368
Cars. Lubricating attachment for railway.....	J. A. Criswell .....	383,558	May 29	2523	665	43	1028
Cars. Mail-bag receiving and delivery apparatus for railway.....	E. Keenan .....	387,420	Aug. 7	324	83, 84	44	635
Cars. Metallic platform for railway.....	J. T. Goodfellow .....	385,177	June 26	2000	513	43	1531
Cars. Metallic platform for railway.....	B. J. La Mothe .....	390,026	Sept. 25	1856	492	44	1450
Cars on cable railways. Attachment for.....	J. H. Pendleton .....	387,990	Aug. 14	1201	{ 325 326 }	44	811
Cars over temporary obstructions. Device for carrying.....	C. H. Little .....	382,711	May 15	1261	330	43	770
Cars. Pipe-coupling for railway.....	E. E. Gold .....	392,424	Nov. 6	366	91	45	663
Cars. Pneumatic propeller for.....	C. H. Goebel .....	376,984	Jan. 24	1825	479	42	371
Cars. Propelling and heating street.....	W. E. Prall .....	388,444	Aug. 28	1928	515	44	963
Cars. Propelling-gear for tram.....	G. D. Gilbert .....	393,896	Dec. 4	242	65	45	1118
Cars. Receptacle for clothes in sleeping.....	P. A. Gordon .....	393,975	Dec. 4	353	95	45	1139
Cars. Running-board for.....	I. Deyell and W. B. Watkins .....	392,015	Oct. 30	2586	704	45	538
Cars. Safety appliance for railway.....	J. A. Jamieson .....	380,630	Apr. 3	481	136	43	98
Cars. Safety-brake for cable.....	A. Neuburger .....	389,895	Sept. 25	1678	443	44	1414
Cars. Sand-box for street.....	W. V. H. Willson .....	392,247	May 1	539	137	43	612
Cars. Shield or cover for heaters and stoves for use on railway.....	G. A. Brown .....	383,615	May 29	2597	686	43	1045
Cars. Sliding door for freight.....	C. H. Dunham .....	378,579	Feb. 28	1851	489	42	882
Cars. Sliding door for street.....	P. M. Kling .....	394,774	Dec. 18	1604	421	45	1402
Cars. Smoke-conductor and ventilator for.....	A. S. Miles .....	391,263	Oct. 16	1521	404	45	308
Cars. Stake and socket for flat.....	T. J. Vaughan .....	399,991	Sept. 25	1813	480	44	1441
Cars. Stake-pocket for.....	C. T. Schoen .....	381,174	Apr. 17	1331	355	43	275
Cars. Station-indicator for railway.....	J. W. Warburst .....	379,498	Mar. 13	819	{ 220 221 }	42	1128
Cars. Steam-coupling for railway.....	J. I. Collins .....	383,628	May 29	2612	691	43	1048
Cars. Steam-heating apparatus for railway.....	J. Emerson .....	382,596	May 8	1096	282	43	729
Cars. Steam-heating apparatus for railway.....	L. D. Jones .....	393,908	Dec. 4	260	70, 71	45	1121
Cars. Steam-heating pipe-connection for.....	J. Emerson .....	382,597	May 8	1098	282	43	729
Cars. Steam-motor for street.....	W. E. Prall, Jr. ....	393,263	Nov. 20	1582	415	45	918
Cars. Steam-pipe connection between railway.....	J. R. Drodzowski .....	377,005	Jan. 31	1950	512	42	403
Cars. Street and station indicator for railway.....	J. B. Clot .....	380,090	Mar. 27	1841	490	42	1342
Cars. Street-indicator for.....	G. A. Pidduck .....	382,769	May 15	1335	351	43	785
Cars. Street or station indicator for.....	I. H. Miller .....	386,486	July 24	1704	450	41	359
Cars. Street or station indicator for.....	W. P. Williams .....	384,488	June 12	959	249	43	1311
Cars. System and apparatus for heating and lighting.....	G. Smith .....	385,882	July 10	827	219	44	168
Cars. System for heating and ventilating.....	E. F. Roberts .....	394,508	Dec. 11	1137	{ 294 295 }	45	1296
Cars. Ticket-holder for railway.....	J. B. McIntyre .....	380,505	Apr. 3	298	86	43	60
Cars. Track-brake for.....	J. S. Bokenkotter .....	376,363	Jan. 10	899	236	42	181
Cars. Track-cleaning attachment for street.....	C. Peper and C. O. Sobinski .....	378,374	Feb. 21	1546	404	42	813
Cars. Track device for handling.....	E. Prefontaine .....	388,073	Aug. 21	1397	361	44	846
Cars. Traveling current-collector for electric-railway motor.....	W. M. Schlesinger .....	377,215	Jan. 31	2157	{ 569 570 }	42	445
Cars. Treasure vault for railway.....	J. Olsson and J. W. Storey .....	385,640	July 3	464	120	44	91
Cars. Ventilating.....	H. Penoyer .....	388,504	Aug. 28	2010	540	44	980
Cars. Ventilating railway.....	A. B. Harris .....	388,865	Sept. 4	92	24	44	1090
Cars. Wheel-guard and track-clearer for.....	P. Portois .....	386,346	July 17	1485	394	44	304
Cars. Whiffletree attachment for horse.....	L. Pfingst .....	393,922	Dec. 4	277	75	45	1124

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Cars with hot air. Apparatus for heating.	M. Casselman and T. F. McGann	376,138	Jan. 10	588	157	42	124
Carbolic smoke-ball holder.	A. J. Spinner	394,029	Dec. 4	425	114	45	1152
Carbon. Arc-light.	J. J. McTighe	392,520	Nov. 6	502		45	690
Carbon battery	G. E. Terrell	378,943	Mar. 6	117	34	42	989
Carbon battery	J. B. Wallace	392,836	Nov. 13	981	252	45	791
Carbon contact or commutator-brush	C. J. Van Depeole	390,921	Oct. 9	1011	266	45	205
Carbon filaments. Flashing apparatus for.	J. W. Packard	391,816	Oct. 30	2395	623	45	480
Carbon filaments. Making	T. A. Edison	390,462	Oct. 2	369	95	45	77
Carbon. Manufacture of refractory	C. H. Land	379,960	Mar. 27	1647	439	42	1394
Carbonating liquids. Apparatus for.	O. Brinler	394,821	Dec. 18	1673	438	45	1415
Carburetor	C. Benz	382,585	May 8	1079	277	43	726
Carburetor	M. A. Foster	377,607	Feb. 7	386	98	42	569
Carburetor	C. S. King and E. G. Brown	385,121	June 26	1927	491	43	1516
Carburetor	R. S. Lawrence	395,152	Dec. 25	2217	569	45	1526
Carburetor	F. J. Lothammer	376,248	Jan. 10	744	197	42	152
Carburetor	L. Marks	382,819	May 15	1405	368	43	799
Carburetor	F. Ruckle and W. Welters	390,037	Sept. 25	1882	497	44	1455
Carburetor	J. Stubbbers	385,485	July 3	229	59	44	45
Carburetor	J. P. Wilson	383,204	May 22	1974	519	43	920
Card board. Playing.	F. M. Penney	376,484	Jan. 17	1073	281	42	221
Card-exhibitor	W. D. Valentine	378,345	Feb. 21	1510	394	42	806
Card-exhibitor	W. D. Valentine and H. S. Bailey	378,270	Feb. 21	1397	366	42	783
Card. Feeding a	P. J. Connelly	390,947	Oct. 9	1048	277	45	212
Card-fillet-setting machines. Head of	R. Sellers	391,279	Oct. 16	1549	410	45	313
Card-flats. Electric testing device for	E. Tweedale	390,101	Sept. 25	1982	527	44	1476
Card-gilding machine	C. Padmore and M. A. T. Gillbee	378,018	Feb. 14	1017	265	42	706
Card-grinder	J. Bishop	386,521	July 24	1766	466	44	369
Card-grinder	B. S. Roy	379,255	Mar. 13	614	168	42	1088
Card-grinding mechanism	W. H. Rankin	377,116	Jan. 31	2028	531	42	417
Card. Hand	D. Pendergast	392,287	Nov. 6	161	41	45	624
Card-hanger	H. S. Hack	384,034	June 5	985	80	43	1175
Card. Playing	S. Bretzfield	388,115	Aug. 21	1403	377	44	857
Card. Playing	F. Couch	378,497	Feb. 28	1737	458	42	859
Card-punching machine. Jacquard	H. B. Payne	395,075	Dec. 25	2084	539	45	1503
Card-rack	A. S. Greenwood	384,439	June 12	894	233	43	1299
Card. Sample	M. B. Church	376,694	Jan. 17	1305	343	42	264
Cards. Binding	J. F. Tapley	391,968	Oct. 30	2545	688	45	530
Cards. Book for holding playing	F. Hebbard	393,432	Nov. 27	1832	482	45	974
Cards. Case for holding playing	G. W. Mintzer	389,093	Sept. 4	416	109	44	1152
Cards, &c. Device for automatically exhibiting business-	G. D. Keach	391,160	Oct. 16	1383	368	45	281
Cards. Machine for lacing jacquard	H. B. Payne and W. Campion	395,076	Dec. 25	2085	539	45	1503
Cards. Ornamenting	C. Schwartz	388,589	Aug. 28	2132	572	44	1003
Cards, &c. Railway-head for cotton-	J. P. Thompson	391,663	Oct. 23	2064	559	45	425
Carding-engine	W. Brown	383,435	May 29	2327	617	43	991
Carding-engine	J. M. Hetherington	381,781	Apr. 24	2210	578	43	466
Carding-engine	J. M. Hetherington	388,659	Aug. 28	2262	606	44	1027
Carding-engine	F. Wilkinson	392,247	Nov. 6	104	27	45	614
Carding-engines. Device for guiding the sliver in sliver-boxes of	W. Lawton	392,275	Nov. 6	141	35, 36	45	621
Carding-machines. Drawing attachment for	J. Cheyne	391,781	Oct. 30	2235	608	45	468
Carding-machines. Electric testing device for	J. Bullough	399,113	Sept. 25	1998	532	44	1479
Carding-machines. Feed-guide for	S. Bates	389,133	Sept. 4	498	127	44	1165
Carding-machines. Mechanism for operating doffer-combs of	E. Wright	381,516	Apr. 17	1837	485	43	374
Carding-machines. Mechanism for stripping the top-flats of	A. Falls	382,598	May 8	1100	283	43	729
Carpenter's framing-gage	L. P. Pickering	385,321	June 26	2232	572	43	1577
Carpenter's gage	A. Laporte	385,124	June 26	1932	493	43	1518
Carpet	G. J. Bicknell	390,435	Oct. 2	332	87	45	70
Carpet-cleaner and dust-conveyer	H. A. Widman, Jr.	383,422	May 22	2303	611	43	979
Carpet-cleaning machine	A. Burekard	381,110	Apr. 17	1246	335	43	259
Carpet fabric	H. Hardwick	382,157	May 1	409	107	43	589
Carpet fabric	J. Humphries	382,682	Aug. 28	2367	608	44	1028
Carpet-fastener	G. Barrow	383,849	June 5	4	1	43	1121
Carpet-fastener	T. D. Haumond	385,554	July 3	330	85	44	66
Carpet-fastener	R. W. Hewerton	387,882	Aug. 14	1025	270	44	776
Carpet-fastener	M. B. McCastline	379,236	Mar. 13	545	152	42	1075
Carpet-fastener	E. R. Taylor	390,720	Oct. 9	727	191	45	152
Carpet fastener. Stair	D. Walker	394,315	Dec. 11	867	229	45	1247
Carpet in rolls. Device for securing the ends of	D. P. Clark and M. U. Loree	378,290	Feb. 21	1434	374	42	790
Carpet-stretcher	J. A. Boice	392,097	Oct. 30	2724	740	45	565
Carpet-stretcher	J. Carter	377,847	Feb. 14	772	197	42	657
Carpet-stretcher	L. R. Dey	382,295	May 8	624	159	43	639
Carpet-stretcher	G. A. Hall	388,864	Sept. 4	91	24	44	1090
Carpet-stretcher	J. A. Kienardt	377,309	Jan. 31	2300	608	42	470
Carpet-stretcher	J. Kingsland, Jr.	393,909	Dec. 4	262	71	45	1122
Carpet-stretcher	B. Manning	384,456	June 12	918	238	43	1394
Carpet-stretcher	C. C. F. Nieschang	381,926	June 19	1619	421	43	1445
Carpet-stretcher	S. S. Pearl	385,372	July 3	51	15	44	12
Carpet-stretcher	J. Story	387,930	Aug. 14	1117	297	44	794
Carpet-stretcher and tacker	H. B. Pitner	394,934	Dec. 18	1875	485	45	1452
Carpet-sweeper	W. J. Drew	376,028	Jan. 3	424	113	42	85
Carpet-sweeper	W. J. Drew	388,768	Aug. 28	2394	646	44	1052
Carpet-sweeper	W. J. Drew	391,129	Oct. 16	1337	356	45	272

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De't.	Vol.	Page.
Carpet-sweeper	R. H. Eddy	375,991	Jan. 3	363	97	42	74
Carpet-sweeper	H. A. Gore	380,201	Mar. 27	1991	533	42	1372
Carpet-sweeper	H. A. Gore, H. W. Ru Ton and G. W. Kelley.	383,806	May 29	2299	765	43	1104
Carpet-sweeper	H. W. Ru Ton	388,376	Aug. 21	1843	489	44	939
Carpets. Composition for cleaning and preserving	R. N. Hyde	392,205	Nov. 6	40	45	45	602
Carriage	J. T. Clarkson	386,963	July 31	2429	638	44	504
Carriage	J. T. Clarkson	392,854	Nov. 13	1006	258	45	796
Carriage	O. Glismann	394,263	Dec. 11	788	208 209	45	1230
Carriage	C. Thomas	393,937	Dec. 4	296	80, 81	45	1129
Carriage	F. W. Zimmer	394,239	Dec. 11	746	197	45	1222
Carriage. Baby	G. H. Baker	384,494	June 12	969	253	43	113
Carriage. Baby	V. Doane, Jr	393,298	Nov. 20	1635	431	45	928
Carriage. Baby	J. H. Gibson	381,834	Apr. 24	2302	599	43	402
Carriage. Baby	H. C. Seip	390,909	Oct. 9	985	260	45	201
Carriage-back	J. H. Cloyes	393,213	Nov. 20	1511	395	45	903
Carriage-body	C. A. Reade	376,162	Jan. 10	624	167 168	42	131
Carriage-boot	J. W. Storrs	381,965	May 1	96	23	43	533
Carriage-bow	J. B. Fox	383,876	June 5	36	12	43	1128
Carriage-brake	J. B. Crosby	392,910	Nov. 13	1076	279	45	810
Carriage canopy-joint	W. Gates and A. G. Snell	389,379	Sept. 11	878	226	44	1248
Carriage. Child's	N. B. Clinch	379,207	Mar. 13	505	142	42	1067
Carriage. Child's	E. A. Gerbracht	376,591	Jan. 17	1225	322	42	250
Carriage. Child's	G. Holloway	393,233	Nov. 20	1539	403	45	909
Carriage. Child's	F. Iseli	395,277	Dec. 25	2416	619	45	1762
Carriage. Child's	T. Lanston	376,301	Jan. 10	678	180	42	140
Carriage. Child's	G. Riexinger	382,491	May 8	929	235	43	695
Carriage, cradle, and chair. Combined	H. G. Portmann	377,270	Jan. 31	2239	592	42	459
Carriage-curtain-cord holder	J. G. English	382,957	May 15	1593	416	43	837
Carriage-curtain fastener	A. G. Snell	393,592	Nov. 27	2075	543	45	1025
Carriage-curtain fastener	A. R. Tully	392,703	Nov. 13	774	196	45	750
Carriage-curtain fastening	G. Roeder	394,884	Dec. 18	1784	403	45	1435
Carriage-curtain fixture	F. A. Brandenburg	382,387	May 1	604	153	43	624
Carriage-curtain light	F. A. Neider	391,063	Oct. 16	1244	331	45	256
Carriage-door lock	W. P. Fest	378,582	Feb. 28	1859	491	42	883
Carriage-elevator	G. L. Loomis	389,583	Sept. 18	1190	312	44	1312
Carriage-jacks. Oiling attachment for	B. F. Lancaster	377,262	Jan. 31	2230	589	42	457
Carriage-maker's grooving and boxing tool	J. A. Trant	378,854	Feb. 28	2264	602	42	959
Carriage. Self-propelling	J. F. Sinkler	385,881	July 10	825	218 219	44	168
Carriage-shackle	J. Pendergast	392,288	Nov. 6	161	42	45	624
Carriage-spring	J. R. Northrup	376,158	Jan. 10	617	166	42	129
Carriage-spring	H. S. Smith	386,937	July 31	2393	629	44	496
Carriage-top	E. B. Golet	385,454	July 3	181	48	44	36
Carriage-top	S. E. Kierolf	388,689	Aug. 28	2276	611	44	1030
Carriage-top	F. R. Merrell	390,387	Oct. 2	272	72	45	58
Carriage-top	J. Mortz	381,945	May 1	66	16	43	527
Carriage-top	H. B. Pitner	376,414	Jan. 10	966	252	42	193
Carriage-top	M. D. Taylor	381,219	June 5	557	153	43	1229
Carriage-top. Folding	J. Mortz	391,944	May 1	65	16	43	527
Carriage-top irons. Manufacturing	F. Schreidt	386,851	July 31	2265	596	44	472
Carriage-top prop	W. R. Jacobs	397,077	July 31	2587	681	44	534
Carriage-top prop	W. H. Shibley and L. Payne	391,090	Oct. 16	127	344	45	263
Carriage-top prop block	A. A. Lines	387,893	Aug. 14	1046	274	44	780
Carriage-top spring	S. W. Cately	382,293	May 8	621	158	43	638
Carriage-tops. Adjustable form for setting and building	C. C. Oakes	378,457	Feb. 28	1679	440	42	846
Carriage. Trick	J. F. Byrnes	393,689	Nov. 27	2232	585 586	45	1055
Carriage warmer and ventilator	G. A. Beach	390,153	Sept. 25	2076	519	44	1492
Carriage-wheel	S. D. Forbes	378,302	Feb. 21	1447	377	42	792
Carriage-wheel	B. A. Treat and E. S. Parmelee	377,587	Feb. 7	349	90	42	562
Carriage-wheel fender	G. C. W. Magruder	384,989	June 26	1710	444	43	1472
Carriage-window	A. W. Child and G. B. Childs	383,437	May 29	2329	618	43	991
Carriage-wrench	F. A. Wegner	390,731	Oct. 9	743	194	45	155
Carriages. Canopy-holder for children's	P. Genbron	377,608	Feb. 7	388	99	42	569
Carriages, cribs, or cradles. Attachment for baby	S. A. Holman	381,878	Apr. 24	2375	617	43	496
Carriages. Fan attachment for children's	A. Sonnenschein	376,684	Jan. 17	1380	363	42	278
Carriages. Gear-iron for	J. F. Fallon	393,549	Nov. 27	2022	529 530	45	1014
Carriages. Making body-loops for	S. E. Brown	390,112	Sept. 25	1997	532	44	1479
Carriages. Sunshade for baby	H. S. Smith	379,734	Mar. 20	1281	342	42	1225
Carriages. Weather-protector for	J. L. Heise	377,105	Jan. 31	2013	528	42	414
Carriages. Wheel-fender for	A. C. Rogers and H. Stenz	384,335	June 12	746	196	43	1271
Carrier:							
See Banana-carrier.	Package-carrier.						
Barrel-carrier.	Parcel-carrier.						
Bundle-carrier.	Pneumatic carrier.						
Cash-carrier.	Quilting-machine shuttle-carrier.						
Cash and package carrier.	Railway signal-carrier.						
Cash and parcel carrier.	Sheaf-carrier.						
Egg-carrier.	Smoke and spark carrier.						
Endless carrier.	Store-service apparatus carrier.						
Harvester bundle-carrier.	Surgeon's suture-carrier.						
Hay-carrier.	Trace-carrier.						
Carrier-apron. Endless	Tug or trace carrier.						
Carrier slats. Attachment for endless	L. Miller	386,551	July 24	1809	478	44	378
Cart coupling. Road	C. C. Snailey	391,280	Oct. 16	1550	410	45	313
Cart. Dump	B. D. Shaw	395,286	Dec. 25	2440	627	45	1566
	F. Rex and E. F. Heusch	387,850	Aug. 14	975	254	44	767

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Cart. Hand.....	D. E. Teal.....	384,402	June 12	843	{ 219 230 }	{ 43 42 }	1289
Cart. Road.....	C. L. Barrett.....	375,979	Jan. 3	347	93	42	70
Cart. Road.....	C. L. Barrett.....	384,829	June 19	1470	324	43	1417
Cart. Road.....	R. D. Buckingham.....	377,061	Jan. 31	1942	510	42	402
Cart. Road.....	L. Burg.....	376,470	Jan. 17	1054	276	42	217
Cart. Road.....	L. Burg.....	391,836	Oct. 30	2328	631	45	486
Cart. Road.....	Z. T. Bush.....	378,354	Feb. 21	1521	398	42	808
Cart. Road.....	J. W. Cooombe.....	388,835	Sept. 4	38	12	44	19-0
Cart. Road.....	M. Copenhaver.....	392,909	Nov. 13	1075	{ 278 279 }	{ 45 44 }	810
Cart. Road.....	S. Craig.....	389,444	Sept. 11	982	263	44	1267
Cart. Road.....	C. Cummings.....	394,836	Dec. 18	1711	443	45	1421
Cart. Road.....	T. Doland.....	392,414	Nov. 6	353	87	45	661
Cart. Road.....	P. Fiege.....	377,673	Feb. 7	487	126	42	587
Cart. Road.....	J. M. Fugott.....	393,971	Dec. 4	348	94	45	1138
Cart. Road.....	J. G. Gay.....	387,637	Aug. 14	672	174	44	708
Cart. Road.....	C. C. Hayes.....	391,246	Oct. 16	1197	397	45	304
Cart. Road.....	F. Higgins.....	389,812	Sept. 18	1574	417	44	1387
Cart. Road.....	N. H. Hill.....	390,598	Oct. 2	557	147	45	112
Cart. Road.....	J. S. Hulett.....	378,888	Mar. 6	46	13	42	975
Cart. Road.....	C. W. and G. H. Jewett.....	382,984	May 15	1631	427	43	843
Cart. Road.....	N. S. Ketchum and S. D. Palmer.....	391,250	Oct. 16	1500	398	45	304
Cart. Road.....	L. J. Lyman.....	394,705	Dec. 18	1477	385	45	1374
Cart. Road.....	W. M. McCrosson.....	384,375	June 12	812	211	43	1283
Cart. Road.....	S. J. McDonald.....	394,711	Dec. 18	1485	{ 387 388 }	{ 45 44 }	1376
Cart. Road.....	E. C. McGrath.....	392,622	Nov. 13	664	166	45	728
Cart. Road.....	F. J. Melvin.....	391,060	Oct. 16	1242	331	45	255
Cart. Road.....	C. A. Miller.....	387,311	Aug. 7	170	45	44	604
Cart. Road.....	C. A. Miller.....	387,312	Aug. 7	171	45	44	604
Cart. Road.....	L. Miller.....	388,704	Aug. 28	2302	{ 618 619 }	{ 44 43 }	1034
Cart. Road.....	W. A. Paterson.....	381,415	Apr. 17	1677	449	43	344
Cart. Road.....	W. H. Price.....	394,790	Dec. 18	1638	426	42	1407
Cart. Road.....	B. F. Rix.....	391,863	Oct. 30	2365	642	45	494
Cart. Road.....	A. M. Wilson.....	384,489	June 12	961	{ 249 250 }	{ 43 42 }	1312
Carts. Body-support for.....	J. H. Tiffany.....	393,274	Nov. 20	1601	419	45	921
Cartridge.....	J. H. Brown.....	389,496	Sept. 11	1052	290	44	1279
Cartridge.....	A. W. Cochran.....	387,493	Aug. 7	423	113	44	657
Cartridge.....	D. Johnson and W. D. Borland.....	392,922	Nov. 13	1091	283	45	813
Cartridge.....	G. M. Peters.....	380,649	Apr. 10	584	161	43	127
Cartridge. Accelerating.....	J. S. Ewbank and A. E. Everdell.....	385,603	July 3	497	103	44	80
Cartridge. Accelerating.....	H. P. Hurst.....	390,232	Oct. 2	55	16	45	15
Cartridge capping and decapping implement.....	W. M. Farrow.....	387,868	Aug. 14	1003	261	44	772
Cartridge-case.....	J. C. Kelton.....	394,376	Dec. 11	960	252	45	1265
Cartridge-case and means for carrying the same.....	J. C. Kelton.....	394,375	Dec. 11	959	252	45	1265
Cartridge-erimper.....	J. W. Brittin.....	379,853	Mar. 20	1478	390	42	1262
Cartridge-extractor.....	F. E. Elliott.....	393,223	Nov. 20	1526	409	45	906
Cartridge-feed pack.....	J. C. Kelton.....	394,374	Dec. 11	959	252	45	1265
Cartridge for fire-arms.....	J. P. Lee.....	378,255	Feb. 21	1378	361	42	780
Cartridge implement.....	H. A. Lyon.....	378,400	Feb. 21	1579	415	42	819
Cartridge-loader.....	F. P. Devens.....	379,636	Mar. 20	1139	{ 301 302 }	{ 42 41 }	1196
Cartridge-loader.....	E. G. Dorchester.....	387,556	Aug. 7	545	{ 141 142 }	{ 44 43 }	677
Cartridge-loader.....	H. Gardner.....	387,223	Aug. 7	37	8	44	579
Cartridge-loader.....	A. S. Gibson.....	385,611	July 3	419	197	44	82
Cartridge-loader.....	A. Lutz.....	387,171	July 31	2732	717	44	558
Cartridge-loading apparatus.....	J. H. Read.....	382,830	May 15	1116	372	43	801
Cartridge-loading block.....	W. H. Pack.....	394,248	Dec. 11	826	219	45	1238
Cartridge-loading machine.....	E. A. Franklin.....	389,505	Sept. 11	1061	{ 282 283 }	{ 44 43 }	1281
Cartridge-loading machine.....	C. C. Hill.....	389,221	Sept. 11	634	{ 163 164 165 }	{ 44 43 42 }	1199
Cartridge-loading machine.....	C. C. Hill.....	389,385	Sept. 11	833	{ 232 233 234 }	{ 44 43 42 }	1250
Cartridge-loading machine.....	G. D. Hunter.....	381,498	Apr. 17	1805	{ 479 480 }	{ 43 42 }	368
Cartridge-loading machine.....	G. D. Hunter.....	381,499	Apr. 17	1811	480	43	370
Cartridge-loading machine.....	J. Mortz.....	389,936	Sept. 25	1733	459	44	1425
Cartridge-loading machine.....	G. M. Peters.....	389,905	June 5	85	{ 24 25 26 27 }	{ 43 42 41 40 }	1137
Cartridge-loading machine.....	G. M. Peters. (Reissue).....	10,966	Nov. 13	1177	{ 306 307 308 }	{ 45 44 43 }	830
Cartridge-loading machine.....	P. Selby.....	381,089	June 5	362	102	43	1190
Cartridge-magazines. Load indicator for.....	W. R. Miller.....	385,942	July 10	911	212	44	187
Cartridge-pack.....	J. C. Kelton.....	394,373	Dec. 11	958	252	45	1264
Cartridge. Photogenic.....	H. G. Piffard.....	381,984	June 5	215	64	43	1162
Cartridge. Pneumatic.....	N. W. Pratt.....	387,256	Aug. 7	85	20	44	588
Cartridge-reloading implement.....	T. G. Bennett.....	383,693	May 29	2700	713	43	1067
Cartridge-reloading implement.....	W. Mason.....	382,482	May 8	917	233	43	693
Cartridge-reloading implement.....	W. W. Wetmore.....	376,930	Jan. 24	1755	462	42	358
Cartridge-shell.....	G. W. Jackson.....	390,042	Sept. 25	1955	519	41	1470
Cartridge-shell.....	F. Stiner and E. R. Darling.....	377,816	Feb. 14	733	185	42	649
Cartridge-shells. Loading apparatus for.....	G. G. Greenough.....	376,118	Jan. 10	602	160	42	126
Cartridge-shells. Machine for cutting and crimping.....	G. D. Hunter.....	383,529	May 29	2481	655	43	1019
Cartridge-shells. Machine for heading.....	W. Mason.....	386,254	July 17	1367	360	44	281

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 1/2	Vol.	Page.
Cartridge-shells. Machine for trimming.	P. Butler	378,953	Mar. 6	128	37.38	42	992
Cartridge-shells. Making	H. S. Maxim	387,651	Aug. 14	692	178	44	712
Cartridges. Combination-tool for loading	F. P. Devens	379,635	Mar. 20	1137	301	42	1195
Cartridges. Loading apparatus for ordnance	J. T. Jefferson	384,039	June 5	295	82.83	43	1177
Cartridges. Machine for winding wads for paper	W. B. Place	393,028	Nov. 20	1254	325	45	852
Cartridges. Percussion-cap for gun	W. Lorenz	387,723	Aug. 14	802	207	44	732
Carving-fork	W. W. Lee	390,489	Oct. 2	410	105	45	81
Carving-fork	W. W. Lee	393,510	Nov. 27	1962	511	45	1001
Carving-fork	M. W. Moakley	393,715	Nov. 27	2264	594	45	1061
Carving-machine	S. Y. Kittle	386,710	July 24	2020	532	44	419
Carving-machine	S. F. Moore	384,995	June 26	1718	446	43	1474
Carving-machine	S. F. Moore	394,710	Dec. 18	1482	387	45	1375
Case:							
See Ammunition-case.	Medicine-case.						
Banana-case.	Nail-case.						
Banker's case.	Needle-case.						
Barber's dressing-case.	Organ-case.						
Blanket-case.	Packing-case.						
Bottle-case.	Pencil-case.						
Cabinet-case.	Pencil or pin case.						
Candle-case.	Photograph-case.						
Cartridge-case.	Piano-case.						
Check-case.	Printer's rule-case.						
Check or card case.	Sash-pulley case.						
Cigar and cigarette case.	Show-case.						
Cigarette-case.	Spectacle-case.						
Clock-case.	Spool-case.						
Distributing-case.	Surgical or other instrument case.						
File-case.	Toilet-case.						
Filing-case.	Traveling-case.						
Folding case.	Violin-case.						
Label-case.	Wall-case.						
Latch-case.	Watch-case.						
Map-case.	Watch or other case.						
Case for exhibiting decorative art	H. W. and T. L. Kraatz	392,038	Oct. 30	2621	712	45	545
Case-hardening and cementation compound	G. F. Evans	376,186	Jan. 10	655		42	136
Cash and package carrier	S. W. Barr	383,937	June 5	144	42.43	43	1148
Cash and package carrier	W. T. Geltz	385,110	June 26	1908	486	43	1513
Cash and package carrier	H. Thomas and L. G. Bostedo	379,084	Mar. 6	322	93.94	42	1026
Cash and parcel carrier	G. F. Green	381,127	Apr. 17	1271	340	43	264
Cash and parcel carrier	D. Lippy	390,378	Oct. 2	255	68	45	54
Cash and parcel carrier. Electrical	G. F. Green	388,859	Sept. 4	79	21	44	1088
Cash and parcel carriers. Railway for	G. F. Green	390,293	Oct. 2	129	37	45	29
Cash and parcel carrying apparatus	S. W. Barr	384,113	June 5	391	110	43	1196
Cash and parcel carrying apparatus	H. L. Lovejoy	382,889	May 15	1499	393	43	819
Cash-car arrester	H. Thomas	379,085	Mar. 6	326	94	42	1027
Cash-cars. Buffer and catch for	A. B. Taylor and J. P. Tirrell	393,039	Nov. 20	1273	330	45	856
Cash-carrier	S. W. Barr	394,326	Dec. 11	881	232	45	1249
Cash-carrier	L. J. Bishop	380,979	Apr. 10	1028	268	43	208
Cash-carrier	A. B. Blackburn	391,577	Oct. 23	1952	526	45	402
Cash-carrier	G. F. Green	386,314	July 17	1449	383	44	296
Cash-carrier	D. Lippy	379,583	Mar. 20	1061	283	42	1181
Cash-carrier	N. Newman	385,196	June 26	2033	521	43	1538
Cash-carrier apparatus	J. F. Burdett	381,052	Apr. 10	1141	305	43	820
Cash-carrier apparatus. Pneumatic	M. Barri	394,552	Dec. 18	1217	318	45	1325
Cash-carrier apparatus. Pneumatic	M. Barri	395,203	Dec. 25	2295	569	45	1539
Cash-carrier apparatus. Pneumatic	M. Barri	395,204	Dec. 25	2297	569	45	1539
Cash-carrier apparatus. Pneumatic	J. L. Given	379,890	Mar. 20	1543	407	42	1274
Cash-carrier apparatus. Pneumatic	J. L. Given	395,130	Dec. 25	2178	561	45	1519
Cash-carrier apparatus. Pneumatic	W. M. Hinman	395,141	Dec. 25	2196	565	45	1522
Cash-carrier apparatus. Pneumatic	W. M. Hinman	395,273	Dec. 25	2411	618	45	1561
Cash-carrier apparatus. Pneumatic	G. B. Kelly	378,792	Feb. 28	2143	566	42	937
Cash-carrier apparatus. Pneumatic	W. S. Pain and W. A. Webber	376,159	Jan. 10	617	166	42	130
Cash-carrier apparatus. Pneumatic	W. S. Pain and W. A. Webber	395,293	Dec. 25	2435	626	45	1565
Cash-carrier apparatus. Pneumatic	E. A. Perkins and D. C. Stuart	395,170	Dec. 25	2248	577	45	1531
Cash-carrier apparatus. Pneumatic	W. A. Webber	378,533	Feb. 28	1771	470	42	868
Cash-carriers. Air-cushion for	H. Thomas	379,296	Mar. 13	630	172	42	1091
Cash-carriers. Air-cushioned counter-balance for	L. G. Bostedo	376,286	Jan. 10	792	210	42	162
Cash-carriers. Locking and releasing mechanism for	H. Thomas	379,618	Mar. 20	1111	295	42	1190
Cash-carriers. Retarding-tube for	F. N. Jones	391,051	Oct. 16	1231	327	45	253
Cash-delivery device	S. E. Fish	385,665	July 3	495	128	44	96
Cash indicator and recorder	J. F. Heady and J. H. Patterson	382,647	May 8	1167	301	43	743
Cash indicator and register	J. F. Heady and J. H. Patterson	386,401	July 17	1562	414	44	319
Cash indicator and register	C. B. Hopkins	384,691	June 19	1275	336	43	1379
Cash indicator and register	J. H. Patterson	382,552	May 8	1021	262	43	713
Cash indicator and register	J. H. Patterson	383,006	May 15	1664	435	43	849
Cash indicator and register	W. G. Sebieckner and E. Rothlisberger	376,262	Jan. 10	762	202	42	156
Cash indicator and register	J. H. Voss	387,193	July 31	2768	724	44	564



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Cash indicator and register .....	J. J. Webster and W. W. Drew .....	393,089	Nov. 20	1335	{ 348 349	45	867
Cash indicator, register, and recorder .....	C. B. Hopkins .....	385,365	June 26	2141	{ 546 547	43	1560
Cash-note .....	E. Sears .....	394,083	Dec. 4	506	135	45	1168
Cash-register .....	H. A. Alm .....	381,520	Apr. 24	1849	489	43	395
Cash-register .....	W. F. Lamb .....	381,561	Apr. 24	1899	501	43	404
Cash-register .....	H. A. Miles .....	387,433	Aug. 7	342	88, 89	44	639
Cash register and indicator .....	W. Aldrich .....	380,542	Apr. 3	355	{ 101 102	43	72
Cash register and indicator .....	T. Carney .....	377,728	Feb. 7	560	{ 144 145	42	600
Cash register and indicator .....	T. Carney .....	388,825	Sept. 4	22	7, 8	44	1076
Cash register and indicator .....	L. Ehrlich .....	388,030	Aug. 21	1263	{ 343 344	44	832
Cash register and indicator .....	J. F. Heady and J. H. Patterson .....	384,158	June 5	469	{ 129 130	43	1211
Cash register and indicator .....	F. J. Patterson and I. P. Davis .....	385,199	June 26	2040	{ 521 522	43	1539
Cash register and indicator .....	J. H. Patterson .....	382,007	May 15	1671	436	43	852
Cash register and indicator .....	J. H. Patterson and J. F. Heady .....	380,513	Apr. 3	312	90, 91	43	63
Cash register and indicator .....	E. T. Taylor .....	380,831	Apr. 10	788	{ 215 216	43	165
Cash register and indicator .....	J. J. Webster .....	377,342	Jan. 31	2350	681	42	478
Cash register and indicator .....	W. W. Wythe .....	384,490	June 12	962	{ 250 251	43	1312
Cash registering and indicating apparatus .....	C. B. Hopkins .....	384,692	June 19	1283	{ 336 337	43	1381
Cash registering and indicating device .....	J. L. Townsley .....	394,894	Dec. 18	1797	{ 466 467	45	1438
Cash-tills. Recorder for .....	G. R. Stokes, W. Loney, and T. M. Favell .....	384,337	June 12	750	197	43	1271
Casket .....	D. R. Gould and P. Baldwin .....	385,707	July 10	563	{ 146 147	44	117
Casks and barrels. Machine for making .....	A. Dunbar .....	385,850	July 10	775	205	44	158
Casks. Apparatus for tilting .....	J. Hill .....	376,652	Jan. 17	1333	350	42	269
Casks. Machine for making .....	C. and W. W. Hewitt .....	377,304	Jan. 31	2294	{ 606 607	42	469
Casks or barrels. Agitator for .....	G. M. Thompson .....	385,151	June 26	1970	504	43	1525
Caster .....	E. G. Asmus .....	384,886	June 19	1569	408	43	1435
Caster .....	J. Hatch and J. H. George .....	395,136	Dec. 25	2188	563	45	1521
Caster .....	A. Lehmann .....	381,476	Apr. 17	1772	473	43	361
Caster .....	N. C. Merriam .....	391,631	Oct. 23	2025	548	45	417
Caster .....	J. P. Reed .....	377,721	Feb. 7	553	{ 141 142	42	599
Caster .....	M. B. Schenck .....	381,173	Apr. 17	1330	355	43	275
Caster .....	C. Stengel .....	388,460	Aug. 28	1951	523	44	968
Caster attachment for stoves or furniture .....	M. Devoy .....	3-1,120	Apr. 17	1262	338	43	262
Caster for stoves, &c. .....	A. H. Conn .....	385,240	June 26	2099	538	43	1552
Caster-frame .....	H. C. Hart .....	383,525	May 29	2475	653	43	1018
Caster-frame .....	J. J. Sullivan .....	394,310	Dec. 11	859	227	45	1245
Caster. Furniture .....	J. Berkey and W. R. Fox .....	372,649	Feb. 28	1948	518	42	901
Caster. Furniture .....	W. E. Gard .....	384,837	June 19	1498	3-9	43	1422
Caster. Furniture .....	J. Toler .....	389,341	Sept. 11	894	210	44	1237
Caster-rollers. Manufacturing .....	R. B. Codling .....	380,790	Apr. 10	738	202	43	155
Caster-socket .....	W. P. Tracy .....	378,740	Feb. 28	2072	547	42	923
Caster-socket .....	W. P. Tracy .....	388,381	Aug. 21	1848	491	44	940
Caster. Stove-leg .....	A. Zuhler .....	375,790	Jan. 3	94	28	42	22
Caster. Trunk or furniture .....	J. P. Carmichael .....	381,759	Apr. 24	2182	570	43	460
Casting .....	S. E. Thomas .....	386,941	July 31	2397	630	44	497
Casting and finishing machine. Type .....	H. Barth and E. Lietze .....	376,765	Jan. 24	1507	{ 397 398 399	42	311
Casting and finishing machine. Type .....	H. Barth and E. Lietze .....	392,710	Nov. 13	781	{ 198 199	45	751
Casting apparatus. Hub .....	F. H. Ensign .....	376,146	Jan. 10	599	{ 159 160	42	126
Casting axle-boxes. Mold for .....	W. W. Ayres .....	393,349	Nov. 27	1713	453	45	951
Casting beam-blanks. Mold for .....	E. M. Butz .....	3-7,764	Aug. 14	855	231	44	743
Casting bells. Mold for .....	G. Campbell .....	385,443	July 3	166	45	44	34
Casting box. Stereotype .....	J. Thompson .....	389,673	Sept. 18	1341	{ 351 352	44	1340
Casting car-wheels. Apparatus for .....	J. R. Davies .....	381,115	Apr. 17	1253	336	43	260
Casting curved pipe. Core-arbor for .....	P. Rieth .....	3-1,645	Apr. 24	2017	529	43	423
Casting hooks into eyes .....	C. L. Sage .....	390,907	Oct. 9	992	260	45	201
Casting horseshoes. Flask for .....	F. I. Freeman .....	389,559	Sept. 18	1151	302	44	1305
Casting ingots .....	C. C. Currier .....	385,749	July 10	927	164	44	130
Casting ingots. Mold for .....	T. Hampton and J. Facer .....	380,321	Apr. 3	20	6	43	6
Casting loose pulleys. Mold for .....	J. McCaffrey .....	377,859	Feb. 14	7-6	201	42	659
Casting machines. Elevator for ingot .....	J. B. D. Boulton .....	384,345	June 12	760	199	43	1273
Casting metal .....	D. C. Stover .....	381,655	Apr. 24	2026	533	43	432
Casting metal ingots .....	J. Illingworth .....	390,861	Oct. 9	923	{ 243 244	45	187
Casting metal ingots. Apparatus for .....	W. Hinfelmann .....	390,371	Oct. 2	243	66	45	51
Casting metal. Mold for .....	S. D. Locke .....	383,060	May 15	1766	456	43	870
Casting metals. Apparatus for .....	D. C. Stover .....	379,137	Mar. 6	399	113	42	1041
Casting metallic forms. Mold for .....	J. B. Price .....	386,219	July 17	1318	{ 348 349	44	272
Casting-mold .....	T. H. Pasco .....	383,318	May 22	2148	567	43	952
Casting ordnance .....	J. F. Allen .....	375,791	Jan. 3	94	28	42	23
Casting ordnance. Apparatus for .....	R. J. Gatling .....	380,756	Apr. 10	675	{ 186 187	43	144
Casting-pattern .....	F. M. Stevens .....	380,827	Apr. 10	785	{ 214 215	43	164

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Casting printers' rollers. Apparatus for .....	D. J. Reilly .....	392,166	Oct. 30	2827	766	45	584
Casting saw-teeth. Mold for .....	H. G. Hubert .....	382,088	May 1	320	84	43	572
Casting teeth of diamond saws. Mold for .....	W. F. Myer .....	387,986	Aug. 14	1194	324	44	809
Casting the teeth of diamond saws. Mold for .....	T. A. Jackson .....	387,644	Aug. 14	682	176	44	710
Casting traps. Apparatus for .....	W. M. Smeaton .....	389,019	Sept. 4	311	82	44	1132
Castings. Core-arbor for hollow .....	W. E. Warner and F. A. Austin .....	383,603	May 29	2570	681	43	1039
Castings. Making iron .....	G. G. Mullins .....	393,443	Nov. 27	1846	.....	45	978
Castrating instrument .....	J. Phillips .....	384,215	June 5	553	152	43	1228
Catamenial sack .....	P. M. Boleman .....	393,882	Dec. 4	921	59	45	1114
Catamenial sack .....	J. Hethersall .....	384,525	June 12	1028	268	43	1324
Catamenial sack .....	W. S. Watson .....	393,408	Nov. 27	1798	475	45	968
Catarth remedy .....	T. S. Greene .....	378,504	Feb. 28	1744	.....	42	860
Catheter .....	J. E. Lee .....	390,177	Sept. 25	2094	558	44	1499
Cattle-guard .....	J. T. Hall .....	379,107	Mar. 6	362	103	42	1034
Cattle-guard .....	J. T. Hall .....	390,592	Oct. 2	551	146	45	111
Cattle. Head-frame for .....	J. O. Dorris .....	390,287	Oct. 2	123	35	45	27
Ceiling. Fire-proof .....	P. B. Wight .....	384,947	June 19	1648	428	43	1451
Ceiling. Metallic .....	W. R. Kinnear .....	382,092	May 1	327	85	43	573
Ceiling. Metallic .....	W. R. Kinnear .....	382,093	May 1	328	85	43	573
Ceiling. Metallic .....	W. R. Kinnear .....	382,094	May 1	329	86	43	574
Ceiling. Metallic .....	W. R. Kinnear .....	388,285	Aug. 21	1691	451	44	914
Ceiling. Metallic .....	W. R. Kinnear .....	388,286	Aug. 21	1692	451	44	914
Ceiling. Metallic .....	L. L. Sagendorph .....	391,821	Oct. 30	2305	625	45	482
Ceiling. Metallic .....	C. Thuener .....	376,926	Jan. 24	1749	460	42	357
Cellars or basements. Water-proof device for .....	L. Ritter .....	391,862	Oct. 30	2363	642	45	494
Cellars water-proof. Rendering .....	F. J. De Berger .....	385,103	June 26	1903	485	43	1512
Celluloid and similar compounds. Apparatus for the manufacture of .....	J. R. France .....	393,752	Dec. 4	29	9, 10	45	1077
Celluloid surfaces. Ornamenting .....	A. Bensinger .....	383,272	May 22	2084	.....	43	941
Cement .....	I. C. Hatch .....	385,859	July 10	786	.....	44	160
Cement. Composition for making .....	J. Wolff .....	383,932	June 5	136	.....	43	1147
Cement compound. Hydraulic .....	G. L. Eagan .....	387,199	July 31	2779	.....	44	566
Cement-drying kiln .....	H. A. Bradley .....	375,920	Jan. 3	256	69, 70	42	54
Cement for calking metallic joints .....	W. Watkins .....	381,449	Apr. 17	1737	.....	43	354
Cement from lime-mud. Manufacture of .....	J. S. Rigby .....	394,663	Dec. 18	1412	.....	45	1361
Cement. Hydraulic .....	J. Murphy .....	382,376	May 8	753	.....	43	662
Cement. Manufacture of articles from hydraulic .....	J. W. Stockwell .....	381,295	June 12	682	182	43	1260
Cement. Manufacturing hydraulic .....	C. R. Gostling .....	387,588	Aug. 7	601	156	44	687
Cement pipes. Machine for making .....	L. G. Haase .....	382,974	May 15	1614	{ 422 }	43	841
Cement. Rubber .....	H. A. Clark .....	389,055	Sept. 4	362	.....	44	1141
Cement. Rubber .....	H. A. Clark .....	389,056	Sept. 4	363	.....	44	1141
Cement. Self-hardening .....	F. Jurschina .....	379,580	Mar. 20	1059	.....	42	1181
Center-board. Folding .....	A. Barum .....	377,134	Jan. 31	2047	536	42	422
Center-board for vessels .....	E. J. Davy .....	390,070	Sept. 25	1929	509	44	1465
Center-board for vessels .....	H. W. Wells .....	388,008	Aug. 21	1381	372	44	853
Centering apparatus .....	J. E. Howard .....	391,533	Oct. 23	1893	508	45	389
Centering device .....	S. B. Minnich .....	380,130	Mar. 27	1898	506	42	1353
Centering-gage .....	C. Gaze .....	390,658	Oct. 9	641	171	45	135
Centering machine .....	S. B. Minnich .....	387,901	Aug. 14	1058	279	44	782
Centrifugal force. Apparatus to illustrate .....	J. Coffin .....	388,476	Aug. 28	1975	530	44	973
Centrifugal machine .....	O. Braun .....	392,553	Nov. 13	603	151	45	716
Centrifugal machine .....	G. N. Downs .....	380,555	Apr. 3	376	107	43	77
Centrifugal machine .....	A. Freitag .....	382,966	May 15	1603	419	43	898
Centrifugal machine .....	T. H. Müller .....	387,801	Aug. 14	905	{ 234 }	44	753
Centrifugal machine .....	F. H. Richards .....	384,718	June 19	1316	344	43	1387
Centrifugal machine .....	G. C. Roberts .....	386,788	July 24	2135	561	44	439
Centrifugal machine .....	D. M. Weston .....	394,234	Dec. 11	740	195	45	1221
Centrifugal reel .....	W. R. Dunlap .....	388,028	Aug. 21	1261	343	44	832
Centrifugal reel .....	Z. C. Eldred .....	387,057	July 31	2552	{ 670 }	44	528
Centrifugal separators. Motor for operating .....	G. de Laval .....	379,690	Mar. 20	1921	{ 323 }	42	1212
Cereals. Apparatus for treating .....	H. R. Robbins, Jr. ....	378,506	Feb. 28	2180	581	42	944
Cervix-clamp .....	W. S. Hew .....	382,039	May 1	248	64	43	550
Chain .....	W. A. Durin .....	393,061	Nov. 20	1300	338	45	861
Chain attachment. Watch .....	H. M. Stroud .....	382,627	May 8	1138	293	43	737
Chain connection. Bend .....	W. R. Datemple .....	392,318	Nov. 6	201	52	45	632
Chain-cutter teeth. Machine for making blanks for .....	C. H. Douglas .....	383,347	May 22	2182	573	43	959
Chain. Detachable .....	J. F. McCreary .....	387,690	Aug. 14	751	192	44	733
Chain. Detachable-link .....	R. F. and J. H. Redick .....	382,554	May 8	1028	262	43	716
Chain. Drawing .....	C. C. Klink, F. Pinkowski, and A. Sollmann .....	382,043	May 1	253	65	43	559
Chain. Drive .....	J. M. Dodge .....	393,220	Nov. 20	1522	399	45	906
Chain. Drive .....	F. Eckstein, Jr. ....	391,591	Oct. 23	1972	532	45	46
Chain. Drive .....	W. D. Ewart .....	377,552	Feb. 7	305	78	42	553
Chain. Drive .....	C. W. Krause .....	379,115	Mar. 6	372	106	42	1035
Chain. Drive .....	B. A. Legg .....	376,325	Jan. 10	848	223	42	171
Chain. Drive .....	B. A. Legg. (Reissue) .....	10,904	Feb. 21	1610	423	42	825
Chain. Drive .....	B. A. Legg .....	378,599	Feb. 28	1477	496	42	887
Chain. Drive .....	B. A. Legg .....	387,081	July 31	2591	682	44	535
Chain. Drive .....	B. A. Legg .....	389,580	Sept. 18	1183	310	44	1311
Chain. Drive .....	S. D. Locke .....	377,811	Feb. 14	727	184	42	648
Chain. Drive .....	S. D. Locke .....	393,992	Dec. 4	376	102	45	1143
Chain. Drive .....	F. H. C. Mey .....	377,572	Feb. 7	329	84	42	558
Chain. Drive .....	B. Oborn .....	378,173	Feb. 21	1246	328	42	756
Chain. Drive .....	B. F. Orton .....	387,006	July 31	2492	654	44	516
Chain. Drive .....	K. Schenck .....	382,057	May 1	272	71	43	563
Chain. Drive .....	F. F. Schofield .....	377,120	Jan. 31	2032	532	42	419
Chain. Drive .....	D. J. Sheldrick .....	377,121	Jan. 31	2033	532	42	419
Chain. Drive .....	J. A. Stone .....	393,490	Nov. 27	1931	505	45	992
Chain. Drive .....	J. A. Stone .....	393,491	Nov. 27	1932	505	45	993
Chain-fastener .....	J. F. Sears and H. E. Kelley .....	381,855	Apr. 24	2341	607	43	459
Chain for conveyers .....	B. A. Legg .....	378,139	Feb. 21	1201	313	42	747

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Chain-link .....	F. Egge .....	392,149	Oct. 30	2805	{ 761 762	45	581
Chain-links. Machine for coupling .....	N. B. Fassett .....	377,376	Feb. 7	11	4		497
Chain-links. Machine for nailing .....	D. D. McKernan .....	394,199	Dec. 11	679	182	45	1210
Chain-links. Manufacture of tubular coverings for .....	J. G. Ward .....	389,992	Sept. 25	1814	4-0	44	1442
Chain-making machine .....	J. Kinder .....	378,252	Feb. 21	1369	360	42	778
Chain. Sheet-metal .....	F. Egge .....	386,390	July 17	1547	410	44	316
Chain. Sheet-metal .....	G. M. Jewett .....	377,076	Jan. 31	1963	515	42	405
Chain-wheel .....	R. J. Smith .....	388,317	Aug. 21	1741	464	44	922
Chain. Wire .....	F. P. Hinds .....	392,558	Nov. 6	556	141	45	701
Chain-wrench .....	J. Magnette .....	388,568	Aug. 28	2102	564	44	997
Chain-wrench .....	W. S. Rollings .....	381,424	Apr. 17	1620	453	43	346
Chain-wrench .....	J. H. Williams .....	377,795	Feb. 14	706	178	42	645
Chains and links. Electrically welding .....	E. Thomson .....	385,385	July 3	45	19	44	15
Chains. Die for making drive .....	S. D. Locke .....	393,913	Dec. 4	297	73	45	1123
Chains. Making drive .....	S. D. Locke .....	393,912	Dec. 4	265	72	45	1122
Chains. Manufacture of sheet-metal .....	F. Egge .....	376,737	Jan. 24	1460	{ 385 386 387	42	303
Chair:							
See Adjustable chair. Life-preserving chair.							
Barber's chair. Mining-chair.							
Collapsible chair. Office-chair.							
Convertible chair. Rail-chair.							
Dental chair. Railway-chair.							
Dental and other chair. Railway-rail chair.							
Dental operating-chair. Reclining-chair.							
Folding chair. Rocking-chair.							
Gong and signal chair. Surgical chair.							
Tray-chair.							
Chair .....	J. R. Brett .....	384,887	June 19	1570	408	43	1435
Chair .....	W. I. Bunker .....	384,698	June 19	1150	304	43	1355
Chair .....	A. Bunn .....	377,512	Feb. 7	254	63	42	543
Chair .....	E. Eshleman .....	388,350	Aug. 21	1726	477	44	931
Chair .....	E. S. French .....	387,586	Aug. 7	599	156	44	687
Chair .....	G. Hunzinger .....	380,629	Apr. 3	480	135	43	98
Chair .....	J. L. Knieper .....	379,959	Mar. 27	1647	438	42	1304
Chair .....	E. E. Koken .....	392,174	Oct. 30	2842	770	45	567
Chair .....	A. D. Marr .....	383,231	May 22	2019	530	43	930
Chair .....	J. Nichols .....	394,599	Dec. 18	1302	341	45	1342
Chair .....	D. Parks .....	376,256	Jan. 10	754	200	42	155
Chair .....	A. W. Stewart .....	391,832	Oct. 30	2306	625	45	482
Chair .....	W. H. Walker .....	385,990	July 10	842	222	44	172
Chair and step-ladder. Combined .....	J. McGowan .....	393,169	Nov. 20	1443	376	45	889
Chair attachment. Child's .....	A. G. Moritz .....	391,637	Oct. 23	2032	550	45	419
Chair attachment. Rocking .....	W. Seug .....	376,266	Jan. 10	767	{ 293 304	42	157
Chair-bottom .....	J. Harley .....	393,758	Dec. 4	37	11		1079
Chair, fish-plate, and rail-coupler. Combined .....	W. Wilt .....	379,432	Mar. 13	826	223	42	1129
Chair-rocker-spring attachment .....	E. E. Peck .....	376,675	Jan. 17	1366	359	42	275
Chair-seat .....	T. Kellogg .....	375,754	Jan. 3	48	14	42	13
Chair seat and cushion. Combined .....	A. Morris .....	389,481	Sept. 11	1034	276	44	1276
Chairs. Automatic fan attachment for rocking .....	M. Marcoux .....	381,697	Apr. 24	2404	625	43	503
Chairs, &c. Canopy attachment for .....	A. A. Smith .....	382,493	May 8	931	236	43	695
Chairs. Equilibrium appliance for rocking .....	G. Kelly .....	379,472	Mar. 13	884	238	42	1140
Chairs. Fan attachment for rocking .....	J. Rau .....	393,342	Nov. 20	1698	449	45	940
Chairs. Foot-rest for .....	J. Hogan .....	390,477	Oct. 2	395	101	45	81
Chairs. Foot-rest for .....	H. S. Parker .....	390,891	Oct. 9	839	224	45	173
Chairs. Reclining attachment for .....	J. I. Stockton .....	375,240	Jan. 3	155	44	42	35
Chairs. Register for tilt-back .....	C. Stewart .....	392,294	Nov. 6	168	44	45	625
Chairs. Return-spring for .....	J. B. Holden .....	376,886	Jan. 24	1699	443	42	346
Chairs. Spring attachment for rocking .....	A. B. Stevens .....	384,647	June 19	1205	318	43	1367
Chairs. Spring-seat for .....	A. B. Blackburn .....	380,420	Apr. 3	163	46	43	34
Chairs. Table attachment for .....	A. A. Burlin .....	382,687	May 15	1233	321	43	764
Chalk, crayon, &c. Machine for the manufacture of .....	C. H. Fuchs .....	383,174	May 22	1937	508	43	913
Chalk-line holder .....	B. Howard .....	384,444	June 12	899	234	43	1300
Chamois-holder .....	A. T. Veeder .....	388,800	Aug. 28	2436	658	44	1061
Chandeliers. Ball-joint for .....	W. Smart .....	393,126	Nov. 20	1384	361	45	877
Chandeliers. Locking device in extension .....	W. W. Kilborn .....	383,815	May 29	2010	768	43	1106
Change-maker .....	W. H. Toft .....	383,939	Dec. 4	299	81	45	1130
Change-receiver .....	J. A. Kimball .....	384,583	June 12	1112	294	43	1339
Channel-cutter .....	W. H. Avey .....	379,192	Mar. 6	467	132	42	1055
Channel-flap-laying machine .....	J. C. Daggett .....	393,097	Nov. 20	1347	351	45	870
Charcoal. Apparatus for restoring the spent properties of .....	C. L. Porter .....	391,335	Oct. 16	1647	428	45	326
Charcoal. Apparatus for the manufacture of .....	J. Scherffins .....	387,817	Aug. 14	928	240	44	757
Chart. Adjustable pattern .....	S. Mandelbaum .....	381,563	Apr. 24	1902	501	43	405
Chart. Dress .....	F. Fels and D. Simon .....	379,384	Mar. 13	754	204	42	1115
Chart. Dress .....	J. S. Wilson .....	375,972	Jan. 3	338	91	42	69
Chart for drafting garments .....	E. P. Follett .....	389,377	Sept. 11	874	{ 225 226	44	1947
Chart for drafting sleeves of garments .....	E. P. Follett .....	389,376	Sept. 11	873	225		1947
Chart. Garment .....	E. M. Goldsmith .....	393,552	Nov. 27	2025	530	45	1014
Chart. Time .....	D. F. Crane .....	379,662	Mar. 20	1504	396	42	1267
Check and pad protector .....	G. A. Meyer .....	382,998	May 15	1651	431	43	847
Check-case .....	G. E. Bower .....	388,251	Aug. 21	1634	437	44	901
Check-hook .....	F. D. Clark .....	387,577	Aug. 7	588	153	44	685
Check-hook .....	F. C. Kimball .....	378,795	Feb. 28	2147	567	42	938
Check-hook .....	C. C. Lovejoy .....	390,280	Oct. 2	258	69	45	55
Check-hook .....	J. S. Matchette .....	387,983	Aug. 14	1190	323	44	808
Check-hook .....	P. McFaddin .....	391,910	Oct. 30	2433	658	45	509
Check-hook .....	W. R. Moore .....	376,334	Jan. 10	862	226	42	174

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Check-loop. Overdraw	L. D. Jones	391,370	Oct. 16	1668	441	45	335
Check-loop. Side	H. Lowe	386,480	July 24	1698	449	44	358
Check or card case	A. M. Clark	389,873	Sept. 25	1644	436	44	1407
Check. Price and inventory	C. S. De Witt	384,237	June 12	594	161	43	1245
Check-protector	W. I. Best	383,854	June 5	9	3	43	1122
Check-receiver	R. Mills	388,901	Sept. 4	145	38	44	1099
Check register or tally	A. B. Gill	384,438	June 12	893	233	43	1299
Check-row attachment	L. Scofield	388,077	Aug. 21	1342	362	44	846
Check-row machines. Attaching device for	L. Scofield	387,819	Aug. 14	931	241	44	758
Check-rower	L. D. Benner	388,013	Aug. 21	1241	337	44	828
Check-rower	A. J. Thompson	387,270	Aug. 7	101	25, 26	44	592
Check-slips, &c. Receptacle for	H. W. Royce	382,733	May 15	1296	338	43	776
Checks, &c. Machine for cutting or punching	C. A. Randall	383,766	May 29	2823	{ 743 744 }	43	1090
Checkrein	B. Miller	384,460	June 12	922	239	43	1305
Checkrein attachment	G. Hosley	376,306	Jan. 10	814	215	42	165
Checkrein attachment for harness	H. J. Wing	385,082	June 26	1870	478	43	1505
Checkrein-holder	J. M. Crawford	376,816	Jan. 24	1599	419	42	328
Checkrein-holder	F. T. Davis	376,640	Jan. 17	1317	346	42	266
Checkrein-holder	G. Morgel	394,591	Dec. 18	1291	339	45	1339
Checkrein-holder	F. Snyder	382,392	May 8	776	197	43	666
Checkrein-hook	D. W. Brownell	389,543	Sept. 18	1122	295	44	1300
Checkrein-hook	J. H. Hill	385,115	June 26	1917	489	43	1515
Checkrein-hook	R. Mason	384,859	June 19	1528	398	43	1428
Checkrein-hook	W. E. Moore	376,899	Jan. 24	1715	449	42	350
Checkrein-loop	E. R. Cahoon	384,017	June 5	257	74	43	1171
Checkrein loops or bars. Attachment for	H. Lowe	385,463	July 3	194	51	44	39
Chemical engine	R. T. Van Valkenburg	385,503	May 29	2440	647	43	1013
Chicken-brooder	C. Houser	379,398	Mar. 13	774	209	42	1118
Chill	W. Fawcett	390,290	Oct. 2	125	36	45	28
Chill-mold apparatus	W. Fawcett	390,355	Oct. 2	221	58, 59	45	47
Chimney	B. F. Hentzell	376,478	Jan. 17	1066	279	42	219
Chimney. Adjustable	I. N. Jones and P. C. Elser	377,899	Feb. 14	846	216	42	671
Chimney-cap	A. E. Clute	394,337	Dec. 11	902	{ 237 238 }	45	1254
Chimney-cap	H. M. Hansen	380,857	Oct. 9	919	242	45	136
Chimney cap and ventilator	A. Martin	389,398	Sept. 11	910	238	44	1253
Chimney-cowl	J. Goettel	379,216	Mar. 13	517	145	42	1070
Chimney-cowl	H. Heisel	387,682	Aug. 14	740	189	44	721
Chimney cowl and ventilator	J. D. Cashill	383,626	May 29	2610	690	43	1048
Chimney-protector	W. Van Gaasbeek	385,489	July 3	235	61	44	47
Chimney-top	A. Herendeen	386,010	July 10	993	264	44	203
Chimney-top	W. J. Smrcka	395,010	Dec. 25	1995	515	45	1483
Chimney-top	W. W. Wright	377,508	Feb. 7	247	60	42	542
Chimney. Ventilating	L. Boutin	390,337	Oct. 2	192	51	45	41
Chimneys. Creating draft in	W. Haas	375,995	Jan. 3	367	98	42	75
Chin-rest for the dead	C. B. Dolge	384,513	June 12	1011	263	43	1320
China. Apparatus for firing	S. S. Frackelton	386,395	July 17	1553	412	44	317
China-kiln	N. M. Fitch	395,128	Dec. 25	2175	561	45	1518
Chinch-trap	R. H. Wilson	391,930	Oct. 30	2464	665	45	514
Chisel	J. R. Bailey	376,276	Jan. 10	779	207	42	159
Chisel for cutting hinge recesses. Gage	A. T. Binkerd	393,881	Dec. 4	219	59	45	1113
Chisel-gage	A. T. Binkerd	393,881	Dec. 4	220	59	45	1114
Chisel-gage	C. L. Mead	380,811	Apr. 10	762	209	43	160
Chloridizing finely-divided amorphous materials	J. C. Newbery and C. T. J. Vautin	380,920	Apr. 10	930	248	43	190
Chlorine. Apparatus for making	J. A. Just	391,158	Oct. 16	1377	367	45	280
Chlorine. Apparatus for obtaining	E. Solvay	393,672	Nov. 27	2209	579	45	1051
Chlorine. Making	J. A. Just	391,159	Oct. 16	1380	{ 367 368 }	45	280
Chlorine. Manufacture of	A. R. Pechiney	390,895	Oct. 9	971	250	45	196
Chloroform from acetone. Manufacture of	G. Rumpf	383,992	June 5	224	66	43	1164
Chock or leader. Anti-frictional	L. Dyer	381,831	Apr. 24	2298	598	43	481
Choke-up alarm	S. F. Wolff	393,412	Nov. 27	1803	{ 476 477 }	45	969
Chop-grader	J. R. Davis, Jr.	380,096	Mar. 27	1848	492	42	1343
Chop-separator	J. R. Davis, Jr.	380,097	Mar. 27	1850	{ 492 493 }	42	1344
Chopper:							
See Cotton-chopper. Stalk-chopper.							
Chopping-knife	M. Ludwig	379,584	Mar. 20	1063	283	42	1181
Chopping-knife and slicer	H. W. Bridgman	387,047	July 31	2539	668	44	525
Christmas-trees or other articles. Support for	R. Langenbach	392,871	Nov. 13	1025	{ 262 263 }	45	800
Chronometer-escapement	P. T. A. Rodock	377,839	Feb. 14	764	195	42	655
Chuck	J. A. Giles	393,150	Nov. 20	1420	{ 370 371 }	45	884
Chuck	O. C. Hall	376,650	Jan. 17	1331	349	42	269
Chuck	E. A. Howe	394,364	Dec. 11	943	248	45	1261
Chuck and attachment for turning treenails. Lathe	F. Cumming	385,793	July 10	688	179	44	142
Chuck. Brace	J. S. Fray	395,222	Dec. 25	2340	599	45	1546
Chuck. Drill	J. C. Crabbs	386,185	July 17	1249	333	44	260
Chuck. Drill	G. W. McIntyre	388,987	Sept. 4	263	70	44	1123
Chuck. Drill	R. J. Pratt	384,928	June 19	1620	421	43	1445
Chuck. Drill	H. M. Preston	383,248	May 22	2042	536	43	934
Chuck. Drill	J. N. Skinner	381,857	Apr. 24	2343	607	43	489
Chuck. Drill	L. C. Taber	389,721	Sept. 18	1412	368	44	1354
Chuck for turning eccentrics. Lathe	W. T. Brewer	386,104	July 17	1140	303	44	237
Chuck. Jeweler's lathe	H. N. Mosley	388,573	Aug. 28	2107	565	44	998
Chuck. Lathe	E. P. Baille	377,596	Feb. 7	364	93	42	565
Chuck. Lathe	F. C. Hinman	392,608	Nov. 13	643	161	45	724
Chuck. Lathe	H. N. Kennedy	379,473	Mar. 13	885	238	42	1141
Chuck. Lathe	F. Müller	385,474	July 3	208	54, 55	44	42
Chuck. Lathe	F. H. Van Houten	382,123	May 1	364	95	43	580
Chuck. Pipe and nipple gripping	M. C. Bignall	393,093	Nov. 20	1342	350	45	869

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Chuck. Self-oiling punch.	D. Warner	390,925	Oct. 9	1019	269	45	206
Chucks. Means for operating revolving	W. Cooper	391,585	Oct. 23	1965	530	45	404
Churn.	J. Ahrends	378,753	Feb. 28	2090	551	42	926
Churn.	N. Barnesley	376,625	Jan. 17	1291	340	42	262
Churn.	E. F. Beard	379,848	Mar. 20	1470	388	42	1360
Churn.	W. Bechtold	381,668	Apr. 24	2053	537	43	435
Churn.	J. E. Benjamin	386,180	July 17	1244	331	44	259
Churn.	C. B. Campbell	380,988	Apr. 10	1044	276	43	211
Churn.	C. F. Chamberlain	379,447	Mar. 13	844	227	42	1133
Churn.	W. H. Crawford	383,866	June 5	21	8	43	1125
Churn.	J. C. Cole	385,696	July 10	544	142	44	114
Churn.	R. F. Collins	378,770	Feb. 28	2114	558	42	931
Churn.	W. F. Cornelius	386,575	July 24	1838	485	41	383
Churn.	J. M. and O. A. Crandell	389,874	Sept. 25	1645	436	44	1407
Churn.	W. H. Curtice	388,537	Aug. 28	2055	553	44	988
Churn.	A. Daul	380,553	Apr. 3	373	106	43	76
Churn.	O. E. Davidson	392,012	Oct. 30	2581	702	45	537
Churn.	C. M. and E. E. Dickey	383,633	May 29	2617	692	43	1049
Churn.	H. Doty	382,639	May 8	1155	297	43	740
Churn.	C. Duecker	391,520	Oct. 23	1878	504	45	385
Churn.	J. M. Flack	386,393	July 17	1550	411	44	316
Churn.	S. Friend	391,787	Oct. 30	2244	610	45	470
Churn.	C. E. Gale	384,518	June 12	1020	265	43	1322
Churn.	E. S. Gibbs and E. Harper	378,501	Feb. 28	1741	459	42	860
Churn.	W. B. Grimes	385,617	July 3	431	111	44	84
Churn.	J. M. Heltsley	393,069	Nov. 20	1309	341	45	863
Churn.	J. M. Hunt	391,149	Oct. 16	1362	364	45	277
Churn.	J. Ingells	385,714	July 10	573	148	44	119
Churn.	L. H. James	382,163	May 1	418	110	43	590
Churn.	S. J. Loveless	386,838	July 31	2247	590	44	468
Churn.	W. H. and C. K. Moore	388,064	Aug. 21	1320	357	44	842
Churn.	O. G. Newton	386,650	July 24	1939	512	44	404
Churn.	S. D. Palmer	378,144	Feb. 21	1208	314	42	749
Churn.	J. Pratt and J. A. Parker	392,165	Oct. 30	2826	766	45	584
Churn.	J. Richards	382,387	May 8	770	195	43	665
Churn.	R. C. Robinson	388,373	Aug. 21	1838	488	44	938
Churn.	E. A. Studasill and N. R. Long	387,185	July 31	2758	722	44	562
Churn.	N. Smith	389,331	Sept. 11	810	206	44	1234
Churn.	T. J. Smith	382,739	May 15	1301	342	43	778
Churn.	L. Snyder	391,924	Oct. 30	2451	662	45	512
Churn.	W. H. H. Spradlin	385,828	July 10	739	193	44	151
Churn.	R. and T. Stockdale	388,740	Aug. 28	2345	632	44	1044
Churn.	A. Tschuur	387,190	July 31	2765	723	44	563
Churn.	T. S. Urie	386,616	July 24	1890	499	44	395
Churn.	J. H. Wilmouth and B. McNairy	375,857	Jan. 3	171	48	42	38
Churn attachment.	H. H. Lott and C. Ziegler	392,645	Oct. 30	2632	715	45	547
Churn-closure.	J. McDernaid	390,689	Oct. 9	683	182	45	144
Churn-cover	A. B. Cosby	377,710	Feb. 7	541	138	42	596
Churn-cover	J. H. Taylor	380,832	Apr. 10	791	216	43	165
Churn. Cream-testing	B. Kanable	392,865	Nov. 13	1019	261	45	799
Churn. Cream-testing	J. P. Wood	383,082	May 15	1798	466	43	876
Churn-dasher	J. Davis	385,698	July 10	547	142	44	114
Churn-dasher	J. E. Finley	380,753	Apr. 10	612	185	43	143
Churn-dasher	J. E. Gibbs	380,282	Mar. 27	2097	561	42	1394
Churn-dasher	T. H. Haulin	385,351	July 3	17	6	44	6
Churn-dasher	T. S. and A. M. E. Stewart	380,226	Mar. 27	2025	541	42	1379
Churn-motor	G. W. Stiles	393,314	Nov. 20	1657	437	45	932
Churn-motor	I. W. Stuart and R. J. Gubbins	378,059	Feb. 14	1068	280	42	715
Churn-operating mechanism	W. G. Patterson	376,752	Jan. 24	1484	391	42	307
Churns. Closure for	E. P. Bryden	386,106	July 17	1142	304	44	237
Churns, washing-machines, &c. Device for operating	J. Restein	383,010	May 15	1686	438	43	854
Chute	H. H. Warner	380,707	Apr. 10	606	166	43	130
Chute. Coal.	J. H. Du Bois	388,542	Aug. 28	2062	555	44	990
Chute. Coal.	E. F. Lewis	381,147	Apr. 17	1294	346	43	268
Chute. Stock	I. T. Yoakum	379,146	Mar. 6	410	116	42	1043
Chute. Stock-loading	J. C. Ferguson	377,519	Feb. 7	262	66	42	545
Chute. Wagon	F. Moeller	386,153	July 17	1209	44	44	252
Cider-mill	C. W. Boyle	382,408	May 8	797	203	43	671
Cider-mill	M. B. Kaylor	386,407	July 17	1587	417	44	327
Cider-purifier	J. W. Williams	386,515	July 24	1753	463	44	368
Cigar-box	F. A. Ford	377,245	Jan. 31	2205	581	42	453
Cigar-box	E. Vallens	376,689	Jan. 17	1391	366	42	280
Cigar-box	H. Walker	394,945	Dec. 18	1888	488	45	1454
Cigar-box catch	H. W. Heffener	388,668	Sept. 4	96	25	44	1091
Cigar-box-trimming machine	H. Leiman	389,708	Sept. 18	1390	364	44	1349
Cigar-boxes. Temporary partition for	N. Du Brul	382,221	May 1	500	130	43	606
Cigar-bunches. Making	J. E. Smith	393,726	Nov. 27	2278	598	45	1063
Cigar-bunching machine	J. H. Abraham and E. K. Martin	384,667	June 19	1237	326	43	1372
Cigar-bunching machine	J. H. Abraham and E. K. Martin	394,901	Dec. 18	1816	470	45	1441
Cigar-bunching machine	J. J. Bach	390,946	Oct. 9	1039	275	45	210
Cigar-bunching machine	D. J. Boehm and C. F. Reed	384,556	June 12	1069	279	43	1331
Cigar-bunching machine	R. A. Bright	386,234	July 17	1337	280	44	276
Cigar-bunching machine	C. Browning	393,342	May 22	2175	281	43	957



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Cigar-bunching machine .....	C. Browning and R. H. Logan .....	392,100	Oct. 30	2728	{ 741 742	45	566
Cigar-bunching machine .....	A. Gordon .....	377,748	Feb. 14	601	{ 155 156	42	623
Cigar-bunching machine .....	M. Greensfelder .....	384,757	June 19	1368	{ 358 359	43	1398
Cigar-bunching machine .....	E. A. Kitzmiller .....	391,976	Oct. 30	2528	{ 6.4 655	45	527
Cigar-bunching machine .....	R. H. Logan and G. H. Culley .....	382,265	May 1	567	{ 143 144	43	618
Cigar-bunching machine .....	J. M. Montgomery .....	387,098	July 31	2614	{ 687 310	44	530
Cigar-bunching machine .....	A. C. Schutz .....	379,732	Mar. 20	1278	{ 341 341	42	1224
Cigar-bunching machine .....	A. C. Schutz .....	390,258	Oct. 2	86	{ 24 25	45	20
Cigar-bunching machine .....	J. E. Smith .....	392,076	Oct. 30	2675	{ 728 729	45	555
Cigar-bunching machine .....	F. Soler .....	393,083	Nov. 20	1325	{ 346 260	45	866
Cigar-bunching machine .....	J. R. Williams .....	380,969	Apr. 10	1006	{ 261 262	43	204
Cigar-bunching machine .....	J. R. Williams .....	382,449	May 8	861	{ 219 220 221	43	622
Cigar-bunching machine .....	M. A. Winget .....	388,802	Aug. 28	2438	{ 658 540	44	1061
Cigar-cutter .....	F. C. Miller .....	390,131	Sept. 25	2027	{ 540 1463	44	1485
Cigar-cutter .....	W. S. Richardson and E. Ridgway .....	389,762	Sept. 18	1463	{ 386 530	44	1365
Cigar-cutter .....	C. P. Young and J. W. Shertz .....	385,221	June 26	2067	{ 530 540	43	1545
Cigar-cutter .....	C. P. Young and J. H. Thomas .....	386,733	July 24	2051	{ 540 492	44	424
Cigar-cutter and call-bell. Combined .....	R. W. Watson and L. J. Hirt .....	393,279	Nov. 20	1613	{ 492 598	45	923
Cigar-fillers. Blank for .....	J. E. Smith .....	393,727	Nov. 27	2280	{ 598 160	45	1064
Cigar-fillers. Mold for measuring and partially shaping .....	F. A. Ford .....	376,147	Jan. 10	601	{ 160 286	42	126
Cigar-fillers. Mold for measuring and partly shaping .....	S. Henry .....	382,608	May 8	1114	{ 286 332	43	732
Cigar-holder .....	D. B. James .....	394,575	Dec. 18	1267	{ 332 297	45	1335
Cigar-holder .....	J. H. Noble .....	378,104	Feb. 21	1137	{ 297 24	42	737
Cigar-lighter .....	C. S. Ellis and J. J. Sturla .....	392,192	Nov. 6	24	{ 6 685	45	599
Cigar-lighter. Electric .....	R. Belfield .....	383,611	May 29	2591	{ 685 551	43	1443
Cigar-machine .....	C. L. Driefer .....	390,160	Sept. 25	2066	{ 551 552	44	1494
Cigar-machine .....	F. E. Pellant .....	381,812	Apr. 24	2254	{ 589 466	43	474
Cigar-making machine .....	C. L. Driefer .....	389,956	Sept. 25	1760	{ 466 467	44	1431
Cigar-making machine .....	A. H. Shock .....	388,314	Aug. 21	1736	{ 464 896	44	922
Cigar-mold .....	C. F. T. Melzer .....	387,796	Aug. 14	896	{ 232 611	44	751
Cigar-mold .....	H. C. Plambeck .....	386,894	July 31	2327	{ 611 1334	44	423
Cigar-mold press .....	D. Slaughter .....	381,177	Apr. 17	1334	{ 356 1848	43	276
Cigar or cigarette case .....	A. J., H. C., and W. C. Needham .....	393,445	Nov. 27	1848	{ 487 1367	45	978
Cigar-package .....	M. Jonas .....	393,113	Nov. 20	1367	{ 356 860	45	874
Cigar-perforating machine .....	A. P. Neff .....	382,548	May 8	1018	{ 260 1117	43	713
Cigar-piercer .....	J. D. Carter .....	376,511	Jan. 17	1117	{ 292 1797	42	229
Cigar-press .....	W. Portner .....	376,963	Jan. 24	1797	{ 472 505	42	366
Cigar-printing machine .....	J. W. and G. F. McIndoe .....	394,987	Dec. 25	1962	{ 505 506	45	1477
Cigar-retailer .....	P. C. Österberg .....	387,103	July 31	2620	{ 689 405	44	540
Cigar-rolling machine .....	O. W. Boman .....	388,174	Aug. 21	1521	{ 406 601	44	878
Cigar-rolling machine .....	C. Hammerstein .....	395,227	Dec. 25	2348	{ 601 552	45	1548
Cigar rolling or wrapping machine .....	C. W. Bowman .....	393,609	Nov. 27	2113	{ 552 553	45	1031
Cigar-seller .....	C. O. Cole .....	390,841	Oct. 9	899	{ 238 26	45	183
Cigar-tip cutter .....	V. Howell .....	380,324	Apr. 3	26	{ 7 303	43	7
Cigar-tip cutter and match-box. Combined .....	O. P. Ellerich .....	377,550	Feb. 7	303	{ 77 426	42	553
Cigar-tuck cutter .....	J. E. Ellis .....	376,030	Jan. 3	426	{ 113 1425	42	85
Cigar-vending apparatus .....	A. G. Hart .....	381,231	Apr. 17	1425	{ 383 554	43	292
Cigar-wrappers. Machine for cutting .....	O. Hammerstein .....	390,167	Sept. 25	2078	{ 554 465	44	1496
Cigar wrapping and finishing machine .....	C. L. Driefer .....	389,955	Sept. 25	1757	{ 465 466	44	1430
Cigar-wrapping machines. Roll for .....	R. A. Bright .....	386,235	July 17	1342	{ 354 1573	44	276
Cigars, &c. Case for .....	J. B. Meier .....	393,255	Nov. 20	1573	{ 412 245	45	916
Cigars. Impressing letters and marks on .....	G. F. and J. W. McIndoe .....	379,020	Mar. 6	245	{ 67 397	42	1010
Cigarette .....	H. F. M. Lemaire .....	384,858	June 19	1528	{ 397 1791	43	1428
Cigarette .....	H. F. Riedel .....	389,976	Sept. 25	1791	{ 475 2174	44	1137
Cigarette-case .....	J. Bernhel .....	388,617	Aug. 28	2174	{ 584 1920	41	1012
Cigarette-machine .....	J. Burns and A. Buckman .....	394,554	Dec. 18	1920	{ 319 567	45	1326
Cigarette-machine .....	E. A. Kjöllnerfeldt and W. Kolnotsch .....	393,656	Nov. 27	2171	{ 568 569 570	45	1043
Cigarette-machines. Printing attachment for .....	J. A. Bonsack .....	377,447	Feb. 7	149	{ 34 35	42	523
Cigarettes, &c. Pocket-box for .....	C. S. Alden .....	376,056	Jan. 10	465	{ 125 474	42	101
Cigarettes with tobacco wrappers. Manufacturing .....	H. F. Riedel .....	389,975	Sept. 25	1790	{ 474 597	44	1437
Circle. Double reflecting .....	C. H. Townsend .....	377,280	Jan. 31	2256	{ 597 474	42	432
Circuit-closer for call systems .....	C. E. Dey .....	388,344	Aug. 21	1778	{ 474 431	44	929
Circuit-closer. Pneumatic intermittent .....	W. C. Barney .....	388,242	Aug. 21	1612	{ 431 432	44	897
Circuit-closing mechanism .....	C. E. Oagley .....	391,855	Oct. 30	2353	{ 639 400	45	492
Circuit maker and breaker. Automatic .....	W. W. Estabrook .....	389,799	Sept. 18	1516	{ 401 812	44	1576
Cistern .....	J. Miller and C. Hochstuhl .....	385,872	July 10	812	{ 215 1483	44	165
Cistern-clamp fastener .....	W. A. Riggs, Jr. .....	381,282	Apr. 17	1483	{ 389 343	43	304
Cistern-cleaner .....	J. H. Breese .....	382,864	May 15	1462	{ 343 213	43	811
Cistern-cleaner .....	F. E. McNall .....	385,869	July 10	805	{ 213 164	41	164

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Cistern. Flushing.....	W. Dunnett.....	381,924	Apr. 17	1394	372	43	287
Clam extract.....	A. H. Bailey.....	395,199	Dec. 25	2290		45	1538
Clam extracts. Making.....	A. H. Bailey.....	394,808	Dec. 18	1655		45	1411
Clamp:							
<i>See</i> Baling-clamp. Paper-hanging clamp.							
Belt-clamp. Rail-clamp.							
Can-clamp. Rope-clamp.							
Cervix-clamp. Rubber-dam clamp.							
Double clamp. Saw-clamp.							
Extension-clamp. Screw-clamp.							
Flask-clamp. Sewing-machine clamp.							
Floor-clamp. Skate-clamp.							
Hose-clamp. Soldering-clamp.							
Jar-clamp. Wire-rope clamp.							
Clamp.....	P. F. Corbett.....	376,637	Jan. 17	1312	344	42	265
Clamp.....	D. Garrison and G. C. Reukauff.....	386,631	July 24	1908	504	44	398
Clamp.....	H. E. Hathaway.....	382,808	May 15	1392	365	43	796
Clamp.....	W. D. Hawley.....	376,304	Jan. 10	813	215	42	165
Clamp.....	W. C. Stickler.....	377,693	Feb. 7	516	132	42	592
Clamp.....	W. P. Tarbell.....	386,279	July 17	1402	399	44	287
Clamp.....	P. A. Whitney.....	385,983	July 10	959	255	44	196
Clamp for cracked hoofs.....	T. Hughes.....	376,441	Jan. 17	1015	266	42	210
Clamp for hoops or bands.....	J. W. Callahan.....	385,501	July 3	253	65	44	51
Clamp for supporting tackle-block straps while riv- etting the same.....	G. A. Ford.....	391,409	Oct. 23	1725	459 } 460 }	45	354
Clapboard-bracket.....	J. A. Traut.....	377,178	Jan. 31	2101	554	42	434
Clapboard-holder.....	C. J. Luce and E. K. Beckwith.....	386,329	July 17	1465	388	44	299
Clapboard-machine.....	J. McIntyre.....	375,887	Jan. 3	212	58	42	45
Clapper or rattler device.....	O. Pagán.....	385,002	June 26	1742	450 } 451 }	43	1479
Clarinet.....	C. Mahillon.....	391,479	Oct. 23	1822	487	45	371
Clasp:							
<i>See</i> Album-clasp. Parcel-clasp.							
Belt-clasp. Pocket-book clasp.							
Blanket-clasp. Scissors-clasp.							
Broom-clasp. Shoe-clasp.							
Corset-clasp. Shoe-lace clasp.							
Fence-clasp. Spring-clasp.							
Garment-clasp. Strap-clasp.							
Hoof-clasp. Ticket-clasp.							
Clasp.....	F. Armstrong.....	391,772	Oct. 30	2215	600	45	466
Clasp.....	W. Bloomberg.....	383,793	May 15	1376	361	43	792
Clasp.....	H. W. Buckland.....	376,578	Jan. 17	1205	318	42	246
Clasp.....	L. J. Bullard.....	388,020	Aug. 21	1250	340	44	830
Clasp.....	J. H. Conaty.....	382,074	May 1	999	79	43	568
Clasp.....	D. F. Dalton.....	378,238	Feb. 21	1352	356	42	776
Clasp.....	J. Jenkinson.....	377,429	Feb. 7	127	27	42	518
Clasp.....	E. Johnson.....	393,983	Dec. 4	368	99	45	1142
Clasp.....	E. C. Jones.....	379,229	Mar. 13	535	149	42	1073
Clasp.....	A. Lewis.....	380,125	Mar. 27	1892	504	42	1352
Clasp.....	S. M. Lines.....	382,480	May 8	916	252	43	693
Clasp.....	J. Merriam.....	385,192	June 26	2027	519	43	1537
Clasp.....	J. V. Pilcher.....	380,217	Mar. 27	2013	538	42	1376
Clasp or buckle.....	S. B. Ferris.....	386,191	July 17	1257	336	44	262
Clasps. Machine for making metallic.....	F. B. Girard and A. Rigault.....	377,379	Feb. 7	17	5, 6	42	498
Claw-bar.....	W. S. Pates.....	377,957	Feb. 14	932	242	42	690
Claw-bar.....	A. R. Wygle.....	381,223	June 5	565	155	43	1230
Clay crusher and drier.....	R. Freygang.....	387,158	July 31	2714	711 } 712 }	44	555
Clay-disintegrator.....	G. Potts.....	384,278	June 12	656	176	43	1256
Clay-pulverizer.....	J. and H. M. Creager.....	380,245	Mar. 27	2053	549	42	1385
Clay to make ballast, &c. Feeding apparatus for use in burning.....	W. Davy.....	389,551	Sept. 18	1139	299 } 300 }	44	1303
Clay. Treating.....	S. Friend.....	385,750	July 10	628		44	130
Cleaner:							
<i>See</i> Boiler-cleaner. Gun-barrel cleaner.							
Boiler-flue cleaner. Lamp-chimney cleaner.							
Boiler-tube cleaner. Pen-cleaner.							
Bottle-cleaner. Railway-track cleaner.							
Carpet-cleaner. Saw-cleaner.							
Cistern-cleaner. Seed-cotton cleaner.							
Comb-cleaner. Sink-cleaner.							
Cotton-cleaner. Slate-cleaner.							
Drain-cleaner. Stove-pipe or flue cleaner.							
Flue-cleaner. Street-cleaner.							
Grain-cleaner. Tube-cleaner.							
Gun-cleaner. Window-cleaner.							
Cleaner and heater. Combined.....	J. D. Sullivan.....	389,720	Sept. 18	1410	368	44	1354
Cleaning apparatus. Magnetic.....	A. Hempel.....	390,229	Oct. 2	53	15	45	14
Cleat.....	J. W. Foran.....	391,526	Oct. 23	1883	506	45	387
Cleat. Portable.....	C. P. Hawley.....	376,595	Jan. 17	1230	324	42	251
Clepsydra.....	J. Cardona.....	387,614	Aug. 7	640	165	44	695
Clevis. Adjustable.....	J. Peters.....	381,578	Apr. 21	1923	507	43	409
Clevis and pin.....	W. H. Baker.....	389,493	Sept. 11	1047	279	44	1278
Clevis. Plow.....	J. D. Binford.....	389,999	Sept. 25	1823	483	44	1443
Clevis. Plow.....	L. A. Weyburn and G. S. Briggs.....	376,792	Jan. 24	1561	409	42	321
Clevis. Self-adjusting.....	D. B. Henry.....	394,923	Dec. 18	1863	482	45	1449
Clip:							
<i>See</i> Axle-clip. Paper-clip.							
Book-clip. Stocking-suspender clip.							
Felly-clip. Trace-attachment clip.							
Music-clip. Whiffletree-clip.							
Clips. Die for forming spring-head.....	E. J. Hess.....	389,570	Sept. 18	1164	305 } 306 }	44	1307

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Clipper. Hair.....	J. Bestgen.....	377,138	Jan. 31	2051	537	42	423
Clipper. Hair.....	T. L. Phipps and W. Burman. (Re-issue.)	10,931	May 15	1824	477	43	880
Clipper. Hair.....	J. K. Priest.....	393,450	Nov. 27	1857	429	45	979
Clipping machine. Hair.....	L. S. Lee.....	382,288	May 1	605	153	43	624
Clock.....	C. Bickford.....	394,816	Dec. 18	1665	435	45	1413
Clock.....	A. and H. E. Junghans.....	381,626	Apr. 24	1997	524	43	424
Clock.....	E. M. and M. Moulton.....	389,852	Sept. 18	1606	424	44	1393
Clock.....	A. Phelps.....	391,271	Oct. 16	1537	408	45	311
Clock. Advertising.....	G. Hoisholt.....	378,589	Feb. 28	1865	492	42	884
Clock. Advertising.....	A. V. Strait.....	385,430	July 3	145	39	44	30
Clock. Alarm.....	A. M. Lane.....	390,786	Oct. 9	820	218	45	169
Clock. Alarm.....	A. M. Lane.....	391,602	Oct. 30	2278	617	45	477
Clock and lamp. Combined.....	J. M. Crawford.....	377,240	Jan. 31	2197	580	42	452
Clock. Calendar.....	P. F. Nilson.....	387,005	July 31	2488	653	44	516
Clock case. Alarm.....	D. B. Tiffany.....	389,120	Sept. 4	482	124	44	1162
Clock-cases and other articles from plastic material. Manufacture of.....	R. P. Coughlin.....	379,450	Mar. 13	847	228	42	1133
Clock-dial.....	A. Bannatyne.....	385,160	June 26	1980	507	43	1527
Clock. Electric alarm.....	E. J. Colby.....	383,439	May 29	2331	619	43	992
Clock. Electric pendulum.....	A. L. Parcellle.....	384,271	June 12	645	174	43	1254
Clock. Electric self-winding.....	V. Himmer.....	391,969	Oct. 30	2517	681	45	524
Clock-key.....	A. M. Lane.....	389,931	Sept. 25	1728	458	44	1424
Clock-movement.....	A. E. Hotchkiss. (Reissue).....	10,920	Apr. 10	1220	327	43	246
Clock movement. Secondary electric.....	C. Bohmeyer.....	386,103	July 17	1139	303	44	237
Clock-pendulum.....	A. L. Parcellle.....	383,539	May 29	2499	659	43	1023
Clock pendulum-regulator.....	J. H. Gerry.....	393,638	Nov. 27	2154	563	45	1039
Clock. Rewinding.....	C. E. Emery.....	391,886	Oct. 30	2394	649	45	501
Clock. Secondary electric.....	W. B. Harvey.....	377,895	Feb. 14	839	215	42	670
Clock-springs. Clamp-barrel for.....	C. E. Emery.....	391,885	Oct. 30	2393	649	45	500
Clock striking mechanism.....	C. Aronson.....	395,110	Dec. 25	2140	553	45	1513
Clock striking mechanism.....	C. E. Burnham.....	384,191	June 5	517	141	43	1222
Clock striking mechanism.....	W. E. Counter.....	376,074	Jan. 10	489	132	42	105
Clock striking mechanism.....	E. Groux.....	377,935	Feb. 14	900	231	42	683
Clock striking mechanism.....	L. Halvorsen.....	377,558	Feb. 7	313	80	42	555
Clock-synchronizer.....	A. G. Wiseman.....	391,446	Oct. 23	1777	475	45	364
Clock-synchronizer. Electric.....	A. G. Wiseman.....	387,276	Aug. 7	109	29	44	594
Clock-synchronizing apparatus.....	C. E. Hoefling.....	390,230	Oct. 2	53	15	45	14
Clock-synchronizing mechanism.....	E. Kronenberg.....	393,159	Nov. 20	1428	373	45	886
Clock-synchronizing system. Electric.....	C. J. Hexamer.....	387,974	Aug. 14	1177	319	44	806
Clock system. Electric.....	C. D. Warner and A. D. Bennett.....	387,704	Aug. 14	770	196	44	726
Clocks and watches. Making arbors for.....	W. N. Weeden.....	387,548	Aug. 7	532	138	44	675
Clocks and watches. Making pinions for.....	W. N. Weeden.....	387,472	Aug. 7	402	105	44	651
Clocks and watches. Means for making pinions for.....	W. N. Weeden.....	387,470	Aug. 7	399	104	44	651
Clocks by the variations of temperature. Device for winding.....	I. L. Roberts.....	386,557	July 24	1816	480	44	379
Clocks. Circuit-closer for electric.....	C. D. Warner.....	387,703	Aug. 14	769	196	44	726
Clocks. Circuit-closing device for electric.....	C. H. Pond.....	383,655	May 29	2650	701	43	1056
Clocks. Electric apparatus for winding.....	M. Viau.....	383,786	May 29	2860	752	43	1096
Clocks. Electric motor for self-winding.....	F. W. Brainerd.....	388,622	Aug. 28	2179	586	44	1012
Clocks. Electric regulating and hand-setting mechanism for.....	W. S. Scales.....	392,230	Nov. 6	78	19	45	609
Clocks. Electric striking attachment for.....	J. H. Gerry.....	393,637	Nov. 27	2152	563	45	1039
Clocks. Electric winding attachment for.....	A. J. Reams.....	384,472	June 12	932	242	43	1307
Clocks, watches, &c. Arbor for.....	W. N. Weeden.....	387,469	Aug. 7	338	104	44	651
Clocks, watches, &c. Pinion for.....	W. N. Weeden.....	387,471	Aug. 7	400	105	44	651
Clocks. Winding and setting attachment for.....	J. Zelly.....	381,603	Apr. 24	1966	517	43	418
Clod-crusher and ground-leveler.....	M. Delano and O. L. Cummins.....	379,565	Mar. 20	1027	275	42	1175
Clod-crusher and land-roller. Combined.....	C. L. Jensen.....	382,612	May 8	1117	227	43	732
Clod-crusher and roller. Combined.....	O. C. Look.....	391,375	Oct. 16	1679	444	45	337
Closet: See Dry closet. Water-closet. Earth-closet.							
Closet flushing and regulating device. Siphon.....	P. Harvey.....	376,090	Jan. 10	512	137	42	109
Cloth-cutting apparatus.....	A. Warth.....	390,105	Sept. 25	1986	528	44	1477
Cloth-cutting machine.....	G. J. W. Galster.....	385,050	June 26	1824	468	43	1495
Cloth-cutting machine.....	G. A. Ries.....	381,644	Apr. 24	2016	529	43	428
Cloth-cutting machine.....	A. Warth.....	380,962	Apr. 10	996	264	43	202
Cloth-cutting machine.....	A. Warth.....	380,963	Apr. 10	998	265	43	203
Cloth-cutting machine.....	A. Warth.....	391,285	Oct. 16	1555	412	45	314
Cloth-cutting machine.....	C. A. Yost.....	393,495	Nov. 27	1936	506	45	994
Cloth. Finishing.....	D. Gessner.....	387,294	Aug. 7	146	39	44	600
Cloth. Finishing.....	D. Gessner.....	387,295	Aug. 7	149	39, 40	44	600
Cloth-finishing machines. Feeding mechanism for.....	J. J. Scholfield.....	380,139	Mar. 27	1909	509	42	1355
Cloth-fuller.....	P. F. C. and A. A. Barette.....	395,202	Dec. 25	2294	589	45	1539
Cloth. Machine for beetling.....	D. Stewart.....	387,749	Aug. 14	836	216	44	739
Cloth. Machine for burring and specking.....	J. W. Holt and A. McQuillan.....	376,449	Jan. 17	1012	276	42	210
Cloth. Machine for rolling and unrolling.....	S. Moritz.....	392,055	Oct. 30	2046	730	45	550
Cloth. Machine for unwinding, drawing off, and cutting.....	N. Harris.....	386,068	July 10	1072	286	44	219
Cloth-napping machine.....	H. N. Grosselin, Fils.....	377,151	Jan. 31	2068	543	42	427
Cloth-pressing machine.....	D. Gessner.....	387,287	Aug. 7	123	32	44	596
Cloth-pressing machine.....	D. Gessner.....	387,288	Aug. 7	128	34	44	597
Cloth-pressing machine.....	D. Gessner.....	387,289	Aug. 7	129	34	44	597

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Cloth-pressing machine .....	D. Gessner .....	387,290	Aug. 7	129	{ 34 35 36 }	{ 44	597
Cloth-pressing machine .....	D. Gessner .....	387,291	Aug. 7	136	36, 37	44	598
Cloth-pressing machine .....	D. Gessner .....	387,293	Aug. 7	145	39	44	599
Cloth-pressing machine .....	D. Gessner .....	387,296	Aug. 7	151	40	44	600
Cloth-pressing machine .....	D. Gessner .....	387,297	Aug. 7	152	40, 41	44	600
Cloth-pressing machine .....	D. Gessner .....	388,127	Aug. 21	1449	388	44	865
Cloth-pressing machine .....	D. Gessner .....	393,604	Nov. 20	1223	318	45	845
Cloth-steamng and drying machine .....	F. Brelle .....	392,903	Nov. 13	1068	277	45	809
Cloth-stretching roll .....	G. W. Miller .....	392,051	Oct. 30	2641	719	45	549
Clothes-drier .....	G. R. Carr .....	392,259	Nov. 6	121	31	45	618
Clothes-drier .....	G. Conover .....	387,340	Aug. 7	209	54	44	611
Clothes-drier .....	G. Conover .....	388,635	Aug. 28	2198	591	44	1016
Clothes-drier .....	G. Cox .....	388,478	Aug. 28	1977	531	44	974
Clothes-drier .....	D. A. Dickson .....	387,345	Aug. 7	217	57	44	613
Clothes-drier .....	J. H. Evans .....	390,120	Sept. 25	2009	536	44	1482
Clothes-drier .....	W. L. Gale .....	384,616	June 19	1101	397	43	1358
Clothes-drier .....	M. Gindorff .....	387,225	Aug. 7	39	9	44	579
Clothes-drier .....	H. Heine .....	382,422	May 8	215	208	43	674
Clothes-drier .....	J. B. Johnson .....	388,281	Aug. 21	1683	450	44	912
Clothes-drier .....	A. Lambert .....	393,247	Nov. 20	1560	409	45	913
Clothes-drier .....	J. L. Lincoln .....	380,332	Apr. 3	27	14	43	10
Clothes-drier .....	H. C. Price .....	382,269	May 1	573	145	43	619
Clothes-drier .....	E. J. Ritterhouse .....	391,191	Oct. 16	1423	250	45	290
Clothes-drier .....	O. M. Shannon .....	380,949	Apr. 10	973	353	43	198
Clothes-drier .....	J. Stundlen .....	389,336	Sept. 11	817	208	44	1236
Clothes-drier .....	E. S. Sutton .....	384,179	June 5	561	137	43	1218
Clothes-drier .....	V. Ten Broeck .....	392,374	Nov. 6	296	74	45	651
Clothes-drier .....	J. S. Valentine .....	391,347	Oct. 16	1534	492	45	329
Clothes-frame .....	S. F. Burgess .....	376,580	Jan. 17	1207	319	42	247
Clothes-hook .....	J. R. Anderson .....	395,108	Dec. 25	2137	552	45	1512
Clothes-horse .....	M. F. Dolan .....	379,378	Mar. 13	747	{ 202 203 }	{ 42	1113
Clothes-line .....	J. S. Wailes .....	385,686	July 3	526	137	44	103
Clothes-line holder .....	A. E. Norman .....	379,717	Mar. 20	1257	336	42	1220
Clothes-line-supporting frame .....	P. Schrader .....	392,463	Nov. 6	428	107	45	675
Clothes-pin. Wire .....	E. M. Hall .....	386,013	Mar. 27	1731	465	42	1321
Clothes-pounder .....	W. Baynes .....	390,744	Oct. 9	766	203	45	159
Clothes-pounder .....	M. A. Nelson .....	378,711	Feb. 28	2038	538	42	917
Clothes-rack .....	D. K. Barnhart .....	387,758	Aug. 14	847	218	44	741
Clothes-rack .....	J. Danner .....	381,194	June 5	523	112	43	1222
Clothes-rack and ironing-board. Combined .....	A. C. Millard .....	376,039	Jan. 3	438	117	42	88
Clothes-sprinkler .....	F. G. Johnson .....	380,039	Mar. 27	1767	473	42	1326
Clothes-stand .....	S. A. Parker .....	381,414	Apr. 17	1675	449	43	344
Clothes-washer. Atmospheric .....	H. T. Lemon .....	384,453	June 12	913	238	43	1303
Clothes-wringer .....	J. J. Brinkerhoff .....	378,951	Mar. 6	126	37	42	991
Clothes-wringer .....	W. M. Brinkerhoff .....	377,545	Feb. 7	295	76	42	552
Clothes-wringer .....	A. Groves .....	389,805	Sept. 18	1524	403	44	1378
Clover-huller .....	H. Barfeind .....	393,613	Nov. 27	2120	{ 554 555 }	{ 45	1032
Clover-huller .....	A. T. Sheets .....	381,487	Apr. 17	1788	476	43	364
Clutch .....	J. Bruyère .....	385,093	June 26	1883	481	43	1508
Clutch .....	T. M. Foote .....	378,088	Feb. 21	1115	{ 291 292 }	{ 42	732
Clutch .....	C. L. Hart .....	394,976	Dec. 25	1945	{ 501 502 }	{ 45	1474
Clutch .....	E. B. Lake .....	385,123	June 26	1931	492	43	1517
Clutch .....	C. Wehner .....	388,233	Aug. 21	1602	428	41	895
Clutch .....	J. D. Westgate .....	386,948	July 31	2404	632	44	499
Clutch and brake for baling-presses. Friction .....	C. E. and H. L. Whitman .....	392,898	Nov. 13	1060	{ 274 275 }	{ 45	807
Clutch-coupling .....	G. F. Hutches .....	383,297	May 22	2120	559	43	948
Clutch for hoisting-chains .....	J. Byrne .....	388,022	Aug. 21	1253	340	44	830
Clutch for wheels and axles .....	J. Hartness .....	378,957	Mar. 6	134	39	42	992
Clutch for working drills. Automatic friction .....	G. D. Anderson .....	389,997	Sept. 25	1822	482	44	1443
Clutch. Friction .....	H. Barnes .....	386,287	July 17	1412	373	44	290
Clutch. Friction .....	R. B. Boschert .....	392,848	Nov. 13	996	256	45	794
Clutch. Friction .....	H. C. Crowell .....	380,384	Apr. 3	120	35	43	25
Clutch. Friction .....	H. C. Crowell .....	383,104	May 22	1839	482	43	893
Clutch. Friction .....	O. Flohr .....	375,739	Jan. 3	26	9	42	9
Clutch. Friction .....	J. Gifford .....	392,423	Nov. 6	364	90	45	663
Clutch. Friction .....	W. R. Havens. (Reissue) .....	10,926	May 1	609	154	43	625
Clutch. Friction .....	W. H. Johnson .....	394,367	Dec. 11	946	{ 248 249 }	{ 45	1262
Clutch. Friction .....	W. C. Jones and W. S. Rogers .....	378,448	Feb. 28	1666	437	42	843
Clutch. Friction .....	J. A. Keller .....	380,326	Apr. 3	27	8	43	7
Clutch. Friction .....	A. Nelson .....	384,268	June 12	641	{ 172 173 }	{ 43	1253
Clutch. Friction .....	W. Oesterlein .....	378,803	Feb. 28	2175	579	42	943
Clutch. Friction .....	S. H. Pitkin .....	388,580	Aug. 28	2118	568	44	1000
Clutch. Friction .....	J. C. Potts .....	387,810	Aug. 14	917	238	44	755
Clutch. Friction .....	J. W. V. Rawlins .....	377,777	Feb. 14	673	169	42	638
Clutch. Friction .....	S. C. Shepard .....	380,140	Mar. 27	1911	510	42	1356
Clutch. Friction .....	W. E. Tallcot .....	389,339	Sept. 11	822	210	44	1237
Clutch mechanism .....	J. D. Westgate .....	386,947	July 31	2403	632	44	498
Clutch mechanism .....	J. and J. R. Bowers .....	392,714	Nov. 13	790	300	45	753
Clutch mechanism. Locking device for .....	W. B. Turner .....	387,272	Aug. 7	103	27, 28	44	592
Clutch. Spiral friction .....	A. H. Merriman .....	390,886	Oct. 9	956	252	45	194
Coal and grain distributing apparatus .....	L. W. Lombard .....	390,029	Sept. 25	1860	493	44	1451
Coal, &c. Apparatus for winning .....	G. H. Ramsay .....	386,655	July 24	1948	514	44	405
Coal. Chain conveyor for handling .....	T. Archer, Jr. .....	385,655	July 3	483	125	44	94
Coal. Chain conveyor for handling .....	A. J. B. Berger .....	391,223	Oct. 16	1465	390	45	298
Coal. Chain conveyor for handling .....	J. M. Dodge .....	382,638	May 8	1153	297	43	740

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Coal-drill.....	W. C. Johnson.....	391,157	Oct. 16	1376	366	45	280
Coal-drill bit.....	D. Corgan.....	381,114	Apr. 17	1252	336	43	260
Coal drilling and cutting machine.....	E. Moser.....	389,402	Sept. 11	914	239	44	1254
Coal-drilling apparatus.....	M. A. Michales.....	389,524	Sept. 11	1088	288 289	44	1286
Coal-fust. Utilizing.....	C. Kimplen.....	392,868	Nov. 13	1023	45	800	
Coal-hod.....	E. Barrath.....	382,939	May 15	1567	409	43	832
Coal-hod die.....	E. Barrath.....	378,755	Feb. 28	2095	552	42	927
Coal-hods. Die-press for forming.....	E. Barrath.....	378,754	Feb. 28	2091	551 552	42	926
Coal-hods. Manufacturing.....	E. Barrath.....	377,705	Feb. 7	533	136 137	42	595
Coal, &c. Mechanism for separating.....	S. Thomas.....	379,253	Mar. 13	564	157	42	1078
Coal-screening mechanism.....	E. B. Cox and S. Salmon.....	380,190	Mar. 27	1975	528	42	1368
Coal-scuttle.....	D. F. Tobin.....	380,231	Mar. 27	2033	543	42	1360
Coal-separator.....	C. W. Ziegler.....	380,156	Mar. 27	1930	514 515	42	1360
Coal-washer.....	S. Stutz.....	391,926	Oct. 30	2454	663	45	513
Coal-washer.....	S. Stutz.....	392,974	Nov. 13	1172	304	45	828
Coaster, carrier, and ferrier. Cable.....	J. Van Zandt.....	378,154	Feb. 21	1221	318 319	42	751
Coaster. Wheeled.....	O. A. Wheeler.....	381,661	Apr. 24	447	196	43	91
Coat.....	M. Cohen.....	388,123	Aug. 21	1442	386	44	864
Coat.....	W. H. Osmer.....	384,214	June 5	552	152	43	1228
Coat.....	M. Schloss.....	379,032	Mar. 6	253	72	42	1013
Coat-adjuster.....	R. and O. Lacourse.....	384,769	June 19	1384	363	43	1401
Coat and hat hook.....	H. B. Baker.....	394,637	Dec. 18	1370	358	45	1353
Coat and hat hook.....	W. H. Lawson.....	382,097	May 1	332	87	43	574
Coat and hat hook.....	F. Taylor.....	381,001	June 5	235	69	43	1166
Coat and pantaloons supporter. Combined.....	S. L. Rice.....	381,888	Apr. 24	2044	535	43	434
Coat-holder. Automatic.....	T. H. Simmons and R. M. Eastman.....	380,602	Apr. 3	2389	621	43	499
Coat-hook.....	W. H. Jacoby.....	378,201	Feb. 21	1284	339	42	764
Coat-hook.....	C. C. Pierce.....	377,773	Feb. 14	666	167	42	637
Coat or hat lock.....	J. E. Young and J. E. McCrea.....	390,330	Oct. 2	181	49	45	39
Coat-protector.....	J. H. Brooke.....	387,575	Aug. 7	583	153	44	684
Coat, vest, &c.....	J. H. Prince.....	391,556	Oct. 23	1926	518	45	396
Coats. Making.....	W. Cohen.....	385,066	June 26	1889	482	43	1509
Coating iron, wood, canvas, &c. Compound for.....	J. F. Martin.....	377,081	Jan. 31	1971	42	407	
Cock.....	N. A. Prout.....	382,900	May 15	1514	396	43	822
Cock box. Stop.....	J. Barry, Jr.....	380,308	Apr. 3	4	1	43	3
Cock for water-service. Telescopic stop.....	E. Douglas.....	386,115	July 17	1152	306	44	240
Cock. Gage.....	J. R. Hodges and W. M. Davie.....	385,052	June 26	1826	468	43	1495
Cock. Gage.....	J. McGwin.....	377,321	Jan. 31	2315	672	42	473
Cock. Gas.....	T. Magnire.....	385,719	July 10	579	150	44	120
Cock or faucet.....	E. A. Newman.....	389,097	Sept. 4	424	112	44	1153
Cock. Plug.....	J. Powell.....	379,244	Mar. 13	554	154	42	1077
Cock. Sea.....	F. C. Starko.....	376,270	Jan. 10	771	205	42	158
Cock. Stop.....	S. Hawkridge.....	383,356	May 22	2198	587	43	962
Cock. Stop and waste.....	J. Helzle.....	389,652	Sept. 18	1310	342	44	1333
Cock. Water.....	J. M. Anderson.....	376,129	Jan. 10	576	154	42	121
Cock. Water.....	H. D. Medrick.....	376,253	Jan. 10	750	199	42	154
Cocks, &c. Automatic device for shutting water.....	J. W. Brook.....	376,287	Jan. 10	793	210	42	162
Cocks, valves, and other steam-fittings. Non-conducting hand-wheel for.....	F. Lunkenheimer.....	383,474	May 29	2393	636	43	1004
Cockeye.....	J. H. Charters.....	395,033	Dec. 25	2023	522	45	1489
Cockle-separator.....	F. W. Howell.....	393,829	Dec. 4	137	38	45	1099
Cocoanut compound.....	L. Hennemeler, Jr.....	391,530	Oct. 23	1890	45	388	
Cocoanut-meat. Machine for cutting.....	J. O. Bartholomew.....	384,414	June 12	861	224 225	43	1293
Coffee. Apparatus for leaching.....	F. C. Wilson.....	394,046	Dec. 4	454	122	45	1158
Coffee. Coating.....	W. Hindhaugh, Jr.....	394,181	Dec. 11	653	176	45	1205
Coffee. Composition for coating.....	F. W. Moore.....	393,917	Dec. 4	272	45	1123	
Coffee-making machine.....	E. K. Sargeant.....	382,111	May 1	349	92	43	577
Coffee-mill.....	J. P. Humble.....	381,074	Apr. 10	1176	313	43	237
Coffee-mill.....	J. M. Hunter.....	379,167	Mar. 6	434	122	42	1048
Coffee-mill.....	E. H. and C. Morgan.....	390,184	Sept. 25	2102	560	44	1500
Coffee-mill.....	E. H. and C. Morgan.....	390,185	Sept. 25	2103	561	44	1500
Coffee-mill.....	E. H. and C. Morgan.....	395,290	Dec. 25	2433	626	45	1565
Coffee-mill.....	J. M. Waddel.....	382,742	May 15	1304	342	43	778
Coffee or tea pot.....	I. Bontell.....	389,790	Sept. 18	1503	395	44	1374
Coffee or tea pot.....	J. J. Royle.....	380,521	Apr. 3	326	94	43	67
Coffee-pot.....	H. B. Cornish.....	377,514	Feb. 7	256	63	42	543
Coffee-pot.....	L. Ehrlich.....	378,296	Feb. 21	1440	375	42	791
Coffee-pot.....	A. Harry.....	386,817	July 31	2209	582	44	463
Coffee-pot.....	T. B. Idle.....	391,617	Oct. 23	2006	542	45	412
Coffee-pot.....	A. J. Lane.....	376,319	Jan. 10	839	221	42	170
Coffee-pot.....	W. Racer.....	385,880	July 10	825	218	44	168
Coffee-pots. Extractor for.....	J. C. Slaughter.....	383,831	May 29	2935	776	43	1111
Coffee-roaster.....	N. A. Durham.....	389,454	Sept. 11	998	267	44	1270
Coffee-roaster.....	O. Walden.....	377,443	Feb. 7	145	32	42	522
Coffee-roasting apparatus.....	I. C. Gordon.....	379,891	Mar. 20	1546	407	42	1275
Coffer-dam.....	A. Kirk.....	385,358	July 3	28	8, 9	44	8
Coffer-dam for vessels.....	G. Clarke.....	395,265	Dec. 25	2399	614	45	1558
Coffin.....	E. Bangs.....	378,076	Feb. 21	1100	288	42	730
Coffin.....	J. H. Chambers.....	382,136	May 1	382	100	43	583
Coffin.....	J. P. and J. S. Mahon.....	384,701	June 19	1300	339	43	1384
Coffin.....	H. Rice.....	379,814	Mar. 20	1110	375 376	42	1250
Coffin-bracket.....	W. Hollis.....	389,654	Sept. 18	1313	343	44	1334
Coffin-depositor.....	A. M. Lewellen.....	377,834	Feb. 14	758	193	42	654
Coffin-fastener.....	M. Bremer.....	388,624	Aug. 28	2182	586	44	1013
Coffin-fastener.....	T. B. Buddington and J. R. Bedient.....	380,242	Mar. 27	2048	547	42	1384
Coffin-fastener.....	C. A. Conklin.....	386,691	July 24	1993	527	44	414



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Coffin-fastener	J. R. Corbett	377,290	Jan. 31	2276	601	42	466
Coffin-fastener	C. H. Duell and E. Laass	377,355	Jan. 31	2374	686	42	482
Coffin-fastener	W. Hamilton	395,226	Dec. 25	2346	601	45	1547
Coffin-fastener	J. P. Lein	386,641	July 24	1924	568	44	401
Coffin-fastener	T. A. Lottridge and J. V. Einstield	383,311	May 22	2139	564	43	951
Coffin-fastener	W. J. Noble	377,325	Jan. 31	2321	673	42	471
Coffin-fastener	W. J. Noble	379,715	Mar. 20	1254	331	42	1220
Coffin-fastener	W. J. Noble	383,235	May 22	2025	531	43	931
Coffin-fastener	E. Simning	377,648	Feb. 7	451	114	42	580
Coffin-fastener	W. A. Sparks	380,701	Apr. 10	600	165	43	129
Coffin-fastener	W. H. Torbeck	381,181	June 5	504	138	43	1218
Coffin-handle	G. C. Frazier	376,407	Jan. 10	955	250	42	191
Coffin lid	J. D. Ripson	387,921	Aug. 14	1097	290	44	790
Coffins. Head-rest for	J. L. Kranser	377,164	Jan. 31	2085	548	42	430
Coffins. Head-rest for	J. McGrath	378,207	Feb. 21	1293	342	42	766
Coffins. Manufacture of artificial-stone.	L. Maundt	382,824	May 15	1410	370	43	800
Coffins or caskets. Machine for forming corners of.	T. D. Hammond	392,118	Oct. 30	2757	749	45	571
Cog-wheel keys. Fastener for	B. Schardt	392,972	Nov. 13	1167	363	45	827
Coil. Reactive	E. W. Rice, Jr.	381,420	Apr. 17	1682	451	43	345
Coiled spring	F. F. Fowler and M. V. B. Waldorf	380,651	Apr. 3	513	143	43	104
Coin assorter and deliverer	T. Carney	386,453	July 24	1658	437	44	350
Coin-counter, match-safe, and cane-handle. Combined	J. M. Basinger	394,327	Dec. 11	885	233	45	1250
Coin. Device for delivering	G. Webster	386,368	July 17	1514	401	44	310
Coin-holder	C. J. Luce	377,568	Feb. 7	325	83	42	557
Coin-operated lock	M. Easton	376,182	Jan. 10	649	173	42	135
Coin-operated lock for receptacles	L. M. Ryfeburgh	390,622	Oct. 2	586	155	45	118
Coin-operated machine	C. F. Finch	387,130	July 31	2680	702	44	549
Coin receptacle and register	E. Headley and W. G. Horton	384,523	June 12	1025	267 268	43	1323
Coin-spinner	F. M. Barber	383,512	May 29	2449	649	43	1014
Coins, &c. Apparatus for automatically closing receptacles for	P. Everitt	382,696	May 15	1245	325	43	767
Coke. Apparatus for cooling	D. R. Murphy	394,127	Dec. 4	568	152	45	1180
Coke-oven. Portable-bottom	D. Evans, and A. W. Adams	386,427	July 17	1615	424	44	333
Coke-ovens. Device for discharging	W. T. Giles and W. Booth	379,390	Mar. 13	762	206	42	1116
Cold surface covering	C. B. Manville	393,441	Nov. 27	1844	486	45	977
Collapsible chair	H. S. Whitehead	379,670	Mar. 20	1187	314	42	1205
Collar and cuff drier and dampener	J. G. Dixon	382,800	May 15	1383	363	43	794
Collar and hame. Combined	G. S. Harvey	391,708	Oct. 23	2132	576	45	438
Collar. Apparel	G. H. Barnard	388,011	Aug. 21	1239	336	44	828
Collar-fastener. Horse	G. Marshall	382,540	May 8	1009	257	43	711
Collar-fastening	J. R. Farrell	390,848	Oct. 9	910	240	45	185
Collar-fastening. Dog	J. M. Riley	394,506	Dec. 11	1134	294	45	1296
Collar-fastening. Horse	A. H. Davis and G. Keith	381,227	June 5	573	156	43	1232
Collar-fastening. Horse	R. T. Lombard	376,894	Jan. 24	1705	446	42	348
Collar-fastening. Horse	A. F. Ransom	377,050	Jan. 31	1917	504	42	396
Collar for cattle. Bell	J. R. and E. R. Hill	384,037	June 5	290	81	43	1176
Collar. Horse	C. F. Allen	391,872	Oct. 30	2376	645	45	497
Collar. Horse	C. Block	388,014	Aug. 21	1243	337	44	828
Collar. Horse	A. C. Jacobs and G. W. Chapman	379,275	Mar. 13	594	164	42	1084
Collar. Horse	O. I. Langworthy	392,208	Nov. 6	43	12	45	603
Collar. Horse	H. W. Loads	376,669	Jan. 17	1359	356	42	274
Collar. Horse	H. B. Maldeis	386,409	July 17	1592	418	44	328
Collar. Horse	C. Malleneaff	393,251	Nov. 20	1565	410	45	914
Collar. Horse	A. McKenzie	395,068	Dec. 25	2072	536	45	1500
Collar. Horse	H. Van Wagener	381,191	Apr. 17	1350	361	43	279
Collar machine. Horse	E. Crawley	389,690	Sept. 18	1359	356 357 358	44	1343
Collar or cuff	E. Kipper	388,287	Aug. 21	1694	452	44	914
Collar-pad	R. Schwahn	377,088	Jan. 31	1987	520	42	410
Collar-pad. Horse	J. S. Cussou	379,506	Mar. 13	940	253	42	1150
Collar-pad. Horse	F. W. Krause	378,055	Feb. 14	1064	279	42	715
Collar-pad. Horse	F. W. Krause	389,478	Sept. 11	1028	274	44	1275
Collar-pad. Horse	L. W. Noyes	383,143	May 22	1895	494	43	904
Collar-stuffing machine	W. Foglesong	391,134	Oct. 16	1343	358	45	273
Collars, cuffs, &c. Manufacturing	J. R. France	392,794	Nov. 13	919	235	45	778
Collars. Fastening for horse	E. J. Lowrey	392,518	Nov. 6	500	125	45	690
Collars. Machine for stuffing horse	S. H. Ewing	393,822	Dec. 4	124	34	45	1096
Collars. Manufacture of horse	H. B. Maldeis	393,166	Nov. 20	1440	376	45	888
Collection-box	F. A. Kittell	383,579	May 29	2545	672	43	1033
Collector	J. Tregoning	394,797	Dec. 18	1641	429	45	1409
Color chart or scale	F. C. Schroeder	377,086	Jan. 31	1984	519	42	410
Color or ink pad	J. B. Loughton	379,793	Mar. 20	1367	364	42	1242
Color. Production of a new red azo	A. Mylius	376,392	Jan. 10	935	42	188	
Colors. Production of azo	A. F. Poirrier and D. A. Rosentfiel	370,927	Apr. 10	943	43	193	
Colors. Production of new azo	H. Wolf	389,127	Sept. 4	490	44	1164	
Coloring-matter	C. Rudolph	395,060	Dec. 25	2093	45	1504	
Coloring-matter. Blue azo	C. Duisberg	388,185	Aug. 21	1540	44	881	
Coloring-matter from nitroso derivatives upon phenylene-diamines. Blue	A. Weinburg	395,300	Dec. 25	2445	45	1567	
Coloring-matter from tetrazo diphenyl and ditolyl. Obtaining oxyazoic	S. Forel	386,192	July 17	1258	44	262	
Coloring-matter from the sulpo-acids of ethyl or diphenylamine combined with tetrazodiphenyl or tetrazoditolyl	T. Diehl	380,028	Mar. 27	1852	42	1344	
Coloring-matter obtained by the action of tetrazo-diamido benzole on phenols. New	R. G. Williams	384,342	June 12	755	43	1272	
Coloring-matter obtained from paraphenylene-diamine, &c. Blue	E. Elsaesser	392,723	Nov. 13	807	45	756	
Coloring-matter. Producing blue-red	E. Hassenkamp	381,471	Apr. 17	1765	43	359	
Coloring-matter. Production of	F. Bender	395,115	Dec. 25	2155	45	1515	
Coloring-matter. Production of blue	E. Ullrich	384,480	June 12	347	43	1309	

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Coloring-matter. Production of new red .....	M. Ceresole .....	377,349	Jan. 31	2364	.....	42	481
Coloring-matter. Production of new red .....	M. Ceresole .....	377,350	Jan. 31	2365	.....	42	481
Coloring-matter. Production of yellow .....	C. Rudolph .....	382,832	May 15	1420	.....	43	802
Coloring-matters. Manufacture of .....	C. Duisberg .....	394,841	Dec. 18	1718	.....	45	1423
Coloring-matters. Production of diazoic .....	A. P. Poirrier and Z. Roussin .....	380,928	Apr. 10	945	.....	43	193
Coloring substances by the reaction of aromatic hydrazin sulphonic acids on retencinon. Production of .....	W. Kelbe .....	386,709	July 24	2020	.....	44	419
Colter .....	D. Reynolds .....	395,250	Dec. 25	2377	608	45	1554
Colter-clamp .....	S. Landauer .....	392,156	Oct. 30	2814	763	45	582
Colter. Rolling .....	D. A. Moon .....	382,239	May 1	528	135	43	610
Colter. Rolling .....	W. E. Sefton .....	382,737	May 15	1209	341	43	777
Colters. Attaching .....	J. F. Packer .....	382,435	May 8	834	214	43	678
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	385,762	July 10	652	170	44	135
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	385,763	July 10	653	170	44	135
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	385,764	July 10	653	170	44	135
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	385,765	July 10	654	171	44	135
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	385,766	July 10	654	171	44	135
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	385,767	July 10	654	171	44	135
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	385,768	July 10	655	171	44	136
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	386,151	July 17	1208	321	44	252
Column. Plate-metal .....	F. Mesker and H. F. Edwards .....	386,152	July 17	1209	322	44	252
Comb .....							
<i>See</i> Curling-comb.                      Electric comb.							
Curry-comb.                      Weaver's comb.							
Comb .....	J. P. Noyes .....	377,769	Feb. 14	661	166	42	636
Comb-cleaner and comb. Combined .....	W. M. Dixon .....	385,796	July 10	691	180	44	143
Comb-cleaning apparatus .....	G. H. McKee .....	379,588	Mar. 20	1070	284	42	1182
Combing-machine .....	J. Pickles and H. W. Whitehead .....	384,783	June 19	1405	{ 367 368 }	{ 43 43 }	{ 1406 1406 }
Combing-machine. Wool .....	H. Wyman .....	385,690	July 3	531	139	44	105
Combing machines. Dabbling mechanism for wool .....	F. Unwin .....	391,567	Oct. 23	1935	522	45	399
Combination-gage .....	W. B. Little .....	390,789	Oct. 9	823	220	45	169
Combination-lock .....	J. Bergmau .....	381,903	May 1	9	3	43	516
Combination-lock .....	B. Fry .....	380,028	Mar. 27	1753	469	42	1324
Combination-lock .....	H. C. Griffin .....	381,068	Apr. 10	1168	311	43	236
Combination-lock .....	C. Henderson .....	387,300	Aug. 7	157	42	44	601
Combination-lock .....	O. Volkerts .....	378,027	Feb. 14	1028	269	42	708
Combination-lock and alarm .....	R. Baumann .....	378,568	Feb. 28	1834	484	42	877
Combination-table .....	K. Riser and P. Bardonner .....	376,415	Jan. 10	967	{ 252 253 }	{ 42 42 }	{ 193 193 }
Combustion and extinguishing sparks. Promoting .....	R. H. Coleman .....	387,623	Aug. 14	653	169	44	704
Commode .....	G. D. Tolman and L. D. Roberts .....	384,006	June 5	243	70	43	1168
Commode .....	W. R. Wythe .....	385,495	July 3	246	63	44	49
Commode, earth-closet, or similar appliance .....	C. L. Doll .....	386,578	July 24	1841	486	44	384
Commode, earth-closet, or similar appliance .....	C. L. Doll .....	388,541	Aug. 28	2061	554	44	900
Commode. Toilet jar .....	L. W. Swofford and C. A. Burns .....	384,218	June 5	556	153	43	1229
Commutator .....	C. L. Buckingham .....	394,095	Dec. 4	526	141	45	1172
Compass-corrector .....	H. B. Hunt .....	391,534	Oct. 23	1895	509	45	389
Compass. Electric alarm .....	H. A. Chase .....	385,043	June 26	1813	465	43	1493
Compass. Mariner's recording .....	H. A. Chase .....	385,042	June 26	1806	465	43	1492
Compasses. Correcting device for ships' .....	L. Sirieix .....	378,528	Feb. 28	1775	469	42	867
Compasses. Draftsman's .....	J. Stevens .....	377,867	Feb. 14	798	204	42	662
Compasses. Electric alarm for ships' .....	A. Gross .....	381,693	Apr. 24	2067	{ 546 547 }	{ 43 43 }	{ 442 442 }
Compensator .....	W. K. Beard and H. A. Ankamp, Jr. .....	377,476	Feb. 7	193	46	42	533
Composing-stick .....	J. R. Risdon .....	393,267	Nov. 20	1590	417	45	919
Composition of matter .....	J. A. Kiesele .....	382,882	May 15	1491	.....	43	817
Composition of matter .....	C. T. Lee .....	389,519	Sept. 11	1085	.....	44	1286
Compound engine .....	W. Berwick and G. Sellers .....	390,434	Oct. 2	330	87	45	70
Compound or expansive engine .....	A. G. Brown .....	391,941	Oct. 30	2478	670	45	517
Compressing or blowing engine .....	W. E. Good .....	381,876	Apr. 24	2370	{ 616 617 }	{ 43 43 }	{ 495 495 }
Compression-coupling .....	J. W. Ramsey .....	387,538	Aug. 7	501	131	44	62
Compressor .....	H. H. Jones .....	376,598	Jan. 17	1233	{ 324 325 }	{ 42 42 }	{ 252 252 }
Concentrator .....	J. J. Droughton .....	383,284	May 22	2103	555	43	944
Concentrator .....	J. A. Jones .....	394,654	Dec. 18	1395	364	45	1358
Concentrator .....	M. McAneny .....	394,197	Dec. 11	677	181	45	1209
Concentrator .....	G. W. Starr and R. M. Kinley .....	391,341	Oct. 16	1625	430	45	327
Concentrator and amalgamator. Combined .....	W. M. Hartman .....	382,701	May 15	1251	327	43	768
Condenser .....	V. H. Becker .....	386,447	July 24	1649	{ 434 435 }	{ 44 44 }	{ 348 348 }
Condenser and water-beater. Surface .....	W. E. Volz .....	384,944	June 19	1641	426	43	1450
Condenser. Ejector .....	L. Schutte .....	393,488	Nov. 27	1928	{ 504 505 }	{ 45 45 }	{ 992 992 }
Condenser. Jet .....	L. Schutte .....	387,261	Aug. 7	91	23	44	589
Condenser. Smoke .....	B. Roberts .....	386,498	July 24	1718	454	44	362
Condenser. Surface .....	F. J. Weiss .....	387,473	Aug. 7	403	106	44	651
Condensing and cooling purposes. Apparatus for .....	E. Theisen .....	377,504	Feb. 7	241	59	42	541
Condensing apparatus .....	J. U. Lloyd .....	390,243	Oct. 2	69	19	45	17
Condensing liquids. Apparatus for .....	J. H. Bassler .....	394,432	Dec. 11	1035	271	45	1277
Condensing liquids. Apparatus for .....	J. H. Bassler .....	394,433	Dec. 11	1036	271	45	1278
Condensing liquids. Apparatus for .....	J. H. Bassler .....	394,434	Dec. 11	1039	272	45	1278
Confinement-mill .....	D. C. Ripley .....	386,722	July 24	2036	536	44	432
Condiments and the like. Pot for .....	R. H. Finlay .....	388,657	Aug. 28	2227	597	44	1021
Conduit .....	M. Meehan .....	384,860	June 19	1530	398	43	1428
Conduit .....	J. Steel .....	381,653	Apr. 24	2033	{ 532 533 }	{ 43 43 }	{ 431 431 }
Conduit. Fluid .....	S. L. Bailey .....	388,616	Aug. 28	2173	584	44	1011
Conduit. Underground .....	M. R. Muckle, Jr. .....	379,408	Mar. 13	789	{ 212 213 }	{ 42 42 }	{ 1121 1121 }
Conduits and machine therefor. Manufacturing .....	M. Meehan .....	376,748	Jan. 24	1479	{ 389 390 }	{ 42 42 }	{ 306 306 }

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Conduits. Machine for making	G. Richardson	392,069	Oct. 30	2663	{ 724 725	{ 45	552
Conduits. Machine for the manufacture of	M. Meehan	388,295	Aug. 21	1704	{ 455 440	{ 44	916
Confection-pan. Steam	W. L. Jancey	391,368	Oct. 16	1665	{ 441 411	{ 45	334
Confections. Machine for molding	J. C. Ruby	393,665	Nov. 27	2194	{ 575 576	{ 45	1047
Confectioner's mold	S. E. Ball	382,678	May 15	1218	{ 316 317	{ 43	761
Confectionery-box	W. J. White	383,606	May 29	2575	{ 682 536	{ 43	1040
Confectionery. Machine for manufacturing and printing articles of	Z. T. Hartman	391,607	Oct. 23	1991	{ 537 538	{ 45	410
Conical wheel	A. Twyman	387,191	July 31	2766	{ 724 361	{ 44	564
Connecting-rod	R. Humble	391,148	Oct. 16	1361	{ 361 371	{ 45	277
Connecting-rod	L. H. Nash	379,806	Mar. 20	1396	{ 371 95	{ 42	1247
Connecting-rod	A. Poulson	387,444	Aug. 7	369	{ 95 118	{ 44	645
Contact. Duplex upward-pressure	C. J. Van Depoele	394,038	Dec. 4	440	{ 118 437	{ 45	1155
Contact for overhead conductors. Constant upward-pressure	C. J. Van Depoele	394,037	Dec. 4	437	{ 118 626	{ 45	1154
Contact-maker. Electric	J. S. Farmer	394,164	Dec. 11	626	{ 167 409	{ 45	1201
Converter	R. W. Hunt	379,894	Mar. 20	1552	{ 409 87	{ 42	1276
Converters and converter-bottoms. Apparatus for lining	B. Versen	375,965	Jan. 3	326	{ 87 76	{ 42	67
Convertible chair	O. C. Harris	375,934	Jan. 3	284	{ 76 139	{ 42	59
Convertible chair	J. Nichols	389,163	Sept. 4	551	{ 139 389	{ 44	1174
Convertible chair	B. C. Odell	394,716	Dec. 18	1492	{ 390 317	{ 45	1378
Convertible chair and cot	P. C. Lewis	386,142	July 17	1191	{ 317 318	{ 44	249
Conveyer	A. H. Brainard	3-3,556	May 29	2521	{ 665 412	{ 43	1037
Conveyer	W. Griesser	3-8,194	Aug. 21	1550	{ 412 280	{ 44	884
Conveyer	W. O. Gunckel	375,931	Jan. 3	280	{ 76 1238	{ 42	58
Conveyer	H. C. Krause and B. Harris	379,704	Mar. 20	1238	{ 329 591	{ 42	1216
Conveyer	D. M. Maxon	391,756	Oct. 23	2191	{ 591 61	{ 45	450
Conveyer	G. W. McCaslin	387,241	Aug. 7	61	{ 14, 15 241	{ 44	5 3
Conveyer	J. F. Simmons	387,820	Aug. 14	932	{ 241 186	{ 44	750
Conveyer	A. Wissler	377,821	Feb. 14	737	{ 187 414	{ 42	650
Conveyer apparatus	G. C. Blickensderfer	381,322	Apr. 17	1536	{ 415 509	{ 43	316
Conveyers. Machine for bending spiral	W. W. Green	393,505	Nov. 27	1948	{ 509 42	{ 45	997
Conveyers. Reversible driving-gear for	G. L. Jarrett and J. P. Bower	393,762	Dec. 4	42	{ 13 1501	{ 45	1080
Conveyers. Shifting gate for	D. W. Marmon	382,890	May 15	1501	{ 393 266	{ 43	819
Conveying apparatus	H. U. Palmer	382,052	May 1	266	{ 69, 70 685	{ 43	562
Conveying apparatus	H. U. Palmer	389,242	Sept. 11	685	{ 174 5215	{ 44	1210
Cooker and frier. Combined steam	H. C. Hornish	381,784	Apr. 24	5215	{ 580 689	{ 43	467
Cooker. Steam	J. W. Davis	385,794	July 10	689	{ 180 663	{ 44	143
Cooker. Steam	J. C. Smith and L. B. Barker	382,256	May 1	663	{ 153 454	{ 43	624
Cooker. Steam feed	J. W. Martin and C. H. Reinholdt	387,525	Aug. 7	454	{ 127 2870	{ 44	667
Cooking and can-filling apparatus. Combined	J. J. Bishop	383,792	May 29	2870	{ 755 122	{ 43	1098
Cooking apparatus. Steam	H. C. Ballard	378,947	Mar. 6	122	{ 35 543	{ 42	990
Cooking utensil	G. H. Eymer	377,712	Feb. 7	543	{ 138 1065	{ 42	597
Cooking utensils. Steam	J. O. Egerton	382,595	May 8	1065	{ 282 2065	{ 43	729
Cooking vessel	C. J. Parker	388,500	Aug. 28	2065	{ 539 783	{ 44	979
Cooking-vessels. Escape attachment for vapors and odors from	A. and M. A. Kelly	389,306	Sept. 11	783	{ 198 651	{ 44	1228
Cooler							
See Beer-cooler. Stock-cooler.							
Milk-cooler. Water-cooler.							
Cooler for soda-water apparatus, &c.	A. K. Finlay	383,518	May 29	2457	{ 651 626	{ 43	1016
Cooling rooms, &c. Ammonia system for	J. Ring	388,722	Aug. 28	2326	{ 626 382	{ 44	1039
Coop. Brood	J. A. Jackson	394,696	Dec. 18	1464	{ 382 509	{ 45	1372
Coop. Chicken	G. W. Booth and G. W. Dawson	390,557	Oct. 2	509	{ 133 1245	{ 45	102
Coop. Chicken	J. H. Brewer	388,016	Aug. 21	1245	{ 338 718	{ 44	829
Coop. Chicken	G. W. Brown	376,230	Jan. 10	718	{ 191 454	{ 42	147
Coop. Folding	W. E. Tate	377,650	Feb. 7	454	{ 116 1297	{ 42	581
Coop. Folding chicken	A. B. Bradford	393,058	Nov. 20	1297	{ 377 2936	{ 45	861
Coop or crate. Folding	T. J. and O. Q. Stille	383,533	May 29	2936	{ 776 1523	{ 43	1111
Copal. Manufacture of artificial	E. Schaal	382,907	May 15	1523	{ 824 391	{ 43	824
Copies. Apparatus for setting writing	J. Curzon	382,143	May 1	391	{ 102 896	{ 43	585
Copies of writings, drawings, and the like. Apparatus for reproducing	G. H. Block	392,777	Nov. 13	896	{ 228 610	{ 45	773
Copies of writings, drawings, and the like. Apparatus for use in producing	E. De Zuccato	389,452	Sept. 11	994	{ 266 167	{ 44	1269
Coping. Metallic socket-connection for stone	W. Williams	380,710	Apr. 10	610	{ 167 246	{ 43	131
Copper. Electrolyzing	E. S. Hayden	377,487	Feb. 7	246	{ 50 467	{ 42	535
Copper. Purification and alloying of	F. J. Seymour	382,198	May 1	467	{ 599 725	{ 43	599
Copper, salts, ores, mattes, &c., in acids. Separating precious metals and impurities from solutions of	T. Kiddie	377,809	Feb. 14	725	{ 648 773	{ 42	648
Copy-holder	E. A. Bennett	387,706	Aug. 14	773	{ 198 275	{ 44	727
Copy-holder	R. W. Bloemcke	394,449	Dec. 11	1056	{ 275 155	{ 45	1281
Copy-holder. Attachable	A. B. Reid	379,246	Mar. 13	556	{ 155 811	{ 42	1077
Copy-holder for compositors	H. F. Maas	384,374	June 12	811	{ 210 344	{ 43	1282
Copying letters and documents	N. C. Stiles	377,583	Feb. 7	344	{ 89 1742	{ 42	561
Copying pads moist. Receptacle for keeping press	C. L. Wise	381,454	Apr. 17	1742	{ 466 13	{ 43	355
Copying-press	T. B. Poyd	388,817	Sept. 4	13	{ 4, 5 2168	{ 41	1075
Copying-press	J. E. Donovan	395,122	Dec. 25	2168	{ 559 24	{ 45	1517
Copying-press	J. P. Johnson	385,356	July 3	24	{ 8 456	{ 44	7
Copying press. Letter	W. J. Barnes	392,486	Nov. 6	456	{ 114 1728	{ 45	681
Cord or rope. Machine for making	C. E. Brainard	378,491	Feb. 28	1728	{ 456 141	{ 42	857
Cords or ropes. Device for fastening	A. L. Pitney	375,832	Jan. 3	141	{ 41 543	{ 42	33
Core-box	M. Fitzgerald	394,108	Dec. 4	543	{ 145 737	{ 45	1174
Core-drill	J. F. Gourley, T. G. Winey, and J. F. Hertzler	387,620	Aug. 14	737	{ 189 720	{ 44	720

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Core-machine	A. Mauser and G. G. Richmond	376,155	Jan. 10	613	165	42	128
Cores. Device for molding	R. A. Regester	386,606	July 24	1874	495	44	391
Cores. Forming	J. J. Carr	393,208	Nov. 20	1506	394	45	908
Cores. Making dry-sand	J. H. Blessing	379,672	Mar. 20	1189	315	42	1206
Coring and halving machine. Fruit-	E. S. Harpst.	393,154	Nov. 20	1424	372	45	885
Cork-extractor	H. J. Boggis.	383,093	May 22	1827	479	43	891
Cork-extractor	L. M. Devore	388,844	Sept. 4	52	14	44	1082
Cork-extractor	L. M. Devore	390,159	Sept. 25	2065	551	44	1491
Cork-extractor	G. W. Engel	386,005	July 10	988	263	44	201
Cork-extractor	R. B. Gilchrist	384,839	June 19	1500	390	43	1423
Cork-extractor	R. B. Gilchrist	392,116	Oct. 30	2752	748	45	570
Cork-extractor	N. Linsley and A. B. Curtis	388,888	Sept. 4	123	33	44	1096
Cork-extractor	J. W. Milam	396,691	Oct. 9	686	183	45	145
Cork-extractor	C. and E. H. Morgan	390,183	Sept. 25	2101	560	41	1500
Cork-extractor	J. P. Stepp	378,907	Mar. 6	66	20	42	979
Cork-extractor	E. Walker	377,790	Feb. 14	700	176	42	644
Cork-retainer	F. E. Heinig and S. Lehigh	378,307	Feb. 14	1003	262	42	703
Cork-retainer	J. G. Hirsch	381,136	Apr. 17	1278	342	43	266
Cork. Substitute for	E. Langen	395,241	Dec. 25	2367		45	1551
Corks. Means for securing	J. W. Kincaid	379,230	Mar. 13	536	149	42	1078
Corking-machine	G. Norton	391,760	Oct. 23	2197	594	45	451
Corkscrew	W. N. Barrett	385,834	July 10	750	196	44	153
Corkscrew	W. N. Barrett	388,945	Sept. 4	210	55	41	1112
Corkscrew	L. W. Fairchild	388,125	Aug. 21	1443	387	44	864
Corkscrew	P. McCarthy and P. Thenis	382,005	May 1	183	47	43	547
Corn and fodder compressor	J. F. Mains	379,967	Mar. 27	1657	442	42	1306
Corn-cutter	T. C. Williams	389,783	Sept. 18	1430	392	44	1371
Corn-cutting device	S. C. Cross	391,738	Oct. 23	2170	586	45	446
Corn-cutting machine	G. H. Fetzer	389,066	Sept. 4	378	99	44	1144
Corn-drill	M. D. Rude	389,907	Sept. 25	1694	447 448	44	1418
Corn-dropper. Automatic	J. H. Stiggleman	378,808	Feb. 28	2182	581	42	944
Corn-fender	F. Pontius	392,824	Nov. 13	961	247	45	786
Corn from the cob. Machine for cutting green	G. L. Merrill	385,871	July 10	809	214	44	165
Corn holder. Hot-	P. J. Godfrey	378,503	Feb. 28	1743	460	42	860
Corn-husker	H. S. Blair	387,391	Aug. 7	289	74	44	627
Corn-husker	S. C. Harper	394,177	Dec. 11	644	173	45	1204
Corn-husker	T. H. Mohring	387,795	Aug. 14	895	231	44	751
Corn-husker	T. H. Mohring	387,985	Aug. 14	1193	323	44	809
Corn-husker	D. T. Phillips	394,504	Dec. 11	1130	293	45	1295
Corn-husker	L. H. Sholder	379,825	Mar. 20	1429	379	42	1254
Corn-husker	J. Spence	382,568	May 8	1050	268	41	720
Corn husking and crushing machine	E. A. Porter	391,646	Oct. 23	2044	553	45	421
Corn-husking implement	P. Kaufman	382,706	May 15	1256	328	43	769
Corn-husking machine	H. H. Arnstead	381,753	Apr. 21	2168	567	43	457
Corn-husking machine	W. M. McDougall	391,738	Oct. 16	1399	373	45	285
Corn or cotton dropper	W. F. Brown	395,242	Dec. 25	2395	613	45	1557
Corn or other grain. Apparatus for cleaning	L. McMurray	391,482	Oct. 23	1825	488 489	45	375
Corn-popper. Rotary	W. C. Moore	389,216	Sept. 11	793	262	44	1230
Corn-removing knife	C. Langbein	376,320	Jan. 10	840	221	42	170
Corn-sheller	H. A. Adams	386,371	July 17	1520	403	44	311
Corn-sheller	H. A. Adams	390,831	Oct. 9	884	235	45	181
Corn-sheller	E. Herrington	380,389	Apr. 3	135	37	43	27
Corn-sheller	A. R. Montgomery	388,062	Aug. 21	1317	356	44	842
Corn-sheller	S. G. Pillsbury	380,767	Apr. 10	701	194	43	148
Corn-shellers. Cylinder for	H. Poucher	379,603	Mar. 20	1095	291	42	1187
Corn-shock binder	M. Spaulding	386,361	July 17	1507	399	44	308
Corn-shock binder and compressor	H. B. Puffenberger	384,279	June 12	653	176	43	1256
Corn-shock tyer	U. B. Watkins	377,182	Jan. 31	2105	555	42	435
Corn-shocker	E. F. Evans	387,155	July 31	2170	710	44	554
Corn-shuck compressor	R. F. Hageman, D. Noggle, and R. S. Eads.	383,355	May 22	2198	581	43	962
Corn shucking and shelling machine	L. R. Whiting	382,285	May 1	602	152	43	623
Corn-silking machine	R. O. Conant and H. R. Stickney	389,442	Sept. 11	979	262	44	1267
Corn-silking machine	J. H. Cuskley	390,948	Oct. 9	1049	277	45	212
Corn splitting and cutting machine	C. J. Porter	382,108	May 1	345	91	43	577
Corner-iron	J. Doty	380,871	Apr. 10	853	230	43	176
Cornet-tremolo	C. Meister	377,493	Feb. 7	219	53	42	537
Cornet tremolo attachment	F. Meuzenbauer	377,860	Feb. 14	787	201	42	659
Cornice-brake	H. Symonds	394,145	Dec. 4	597	160	45	1186
Cornice-machine	F. M. Leavitt	395,154	Dec. 25	2222	571	45	1527
Cornices. Constructing	H. Bertling	383,612	May 29	2592	686	43	1044
Corrugating-machine	S. Fox	384,031	June 5	280	78, 79	43	1175
Corrugating-machine	T. F. Rowland and W. E. Hill	379,985	Mar. 27	1680	448 449	42	1311
Corset	P. A. Barattet	383,687	May 29	2692	712	43	1065
Corset	M. P. Bray	388,623	Aug. 28	2181	586	44	1013
Corset	G. A. Close	384,307	June 12	698	186	43	1263
Corset	G. A. Close	387,578	Aug. 7	588	154	44	685
Corset	M. P. De Jonge	375,990	Jan. 3	363	97	42	74
Corset	M. L. Geffs	390,771	Oct. 9	802	213	45	165
Corset	E. Glass	390,162	Sept. 25	2071	553	44	1494
Corset	C. A. Griswold. (Reissue)	10,935	June 5	575	157	43	1933
Corset	C. A. Griswold. (Reissue)	10,939	June 19	1655	430	43	1452
Corset	C. A. Griswold	392,195	Nov. 6	29	8	45	600
Corset	C. A. Griswold	392,196	Nov. 6	30	8	45	600
Corset	C. A. Griswold	392,197	Nov. 6	31	8	45	600
Corset	C. A. Griswold	392,198	Nov. 6	32	8	45	600
Corset	C. A. Griswold	392,199	Nov. 6	34	9	45	601
Corset	C. A. Griswold	392,200	Nov. 6	35	9	45	601
Corset	C. A. Griswold	392,201	Nov. 6	36	9	45	601
Corset	J. Koon	382,478	May 8	914	231	43	692
Corset	J. Koon	385,559	July 3	344	89	44	69

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Corset.....	E. Pohl.....	393,786	Dec. 4	77	21	45	1087
Corset.....	L. Schiele.....	389,015	Sept. 4	307	80	44	1131
Corset.....	E. Thompson.....	376,924	Jan. 24	1747	459	42	356
Corset.....	I. Weed.....	387,753	Aug. 11	841	217	44	740
Corset.....	J. E. Wood.....	389,948	Sept. 25	1748	463	41	1429
Corset.....	W. Young.....	389,130	Sept. 4	493	126	44	1164
Corset and bustle. Combined.....	P. Parmenter.....	378,518	Feb. 28	1756	464	42	863
Corset-busk.....	G. Dünnioghaus.....	381,061	Apr. 10	1153	307	43	232
Corset-clasp.....	M. P. Bray.....	377,232	Jan. 31	2181	576	42	449
Corset-clasp.....	J. Day.....	380,193	Mar. 27	1984	531	42	1369
Corset-clasp.....	M. W. Henins.....	385,710	July 10	567	147	44	118
Corset-clasp.....	P. Ladin.....	378,691	Feb. 28	2013	531	42	912
Corset-cord fastener.....	H. A. Blanchard.....	394,817	Dec. 18	1067	435	45	1414
Corset-fastener.....	B. K. Davenport.....	380,192	Mar. 27	1980	530	42	1369
Corset-fastener.....	L. Sacanville.....	392,639	Nov. 13	684	171	45	732
Corset-fastening.....	J. A. Brennan.....	380,017	Mar. 27	1738	466	42	1322
Corset-fastening. Removable.....	S. A. Schoefer.....	380,056	Mar. 27	1792	479	42	1332
Corset-shaping apparatus.....	J. Stone and M. Gardner.....	383,416	May 22	2291	609	43	978
Corset-stay.....	E. J. Jones.....	376,035	Jan. 3	433	115	42	87
Corset-steel protector.....	E. Cushing.....	378,576	Feb. 28	1847	488	42	881
Corsets. Making.....	N. Stiegler, Jr., and J. Cargemel.....	378,023	Feb. 14	1023	267	42	707
Cot. Folding.....	J. C. Porter.....	383,985	June 5	216	64	43	1162
Cot. Folding.....	J. W. Ruthmann.....	395,295	Dec. 25	2439	627	45	1566
Cot. Folding.....	C. T. Segar.....	381,433	Apr. 17	1707	457	43	350
Cot-legs or other articles of like construction. Bracing, attaching, and detaching.....	L. Banks.....	389,733	Sept. 18	1429	373	44	1358
Cots. Folding head-piece for.....	F. C. Hannahs.....	388,131	Aug. 21	1454	390	44	866
Cotton-batting machine.....	W. I. Lewis.....	386,143	July 17	1197	319	44	249
Cotton-batting. Making.....	E. Walker and D. Williams.....	382,916	May 15	1534	402	43	826
Cotton-chopper.....	J. B. Ammons.....	376,274	Jan. 10	775	206	42	159
Cotton-chopper.....	W. P. Clark.....	376,294	Jan. 10	801	212	42	163
Cotton-chopper.....	L. R. Corder.....	377,450	Feb. 7	156	36	42	524
Cotton-chopper.....	A. Fleming.....	380,429	Apr. 3	176	48	43	36
Cotton-chopper.....	S. Freeman.....	384,516	June 12	1017	264	43	1322
Cotton-chopper.....	W. H. Harper, J. M. Boyd, and A. C. Shelton.....	378,443	Feb. 28	1658	435	42	842
Cotton-chopper.....	J. B. King.....	377,392	Feb. 7	39	12	42	503
Cotton-chopper.....	C. T. McIntosh.....	388,139	Aug. 21	1461	392	44	868
Cotton-chopper.....	E. J. Schuman.....	389,942	Sept. 25	1742	461	44	1428
Cotton-chopper.....	C. H. Simmons.....	387,262	Aug. 7	92	23	44	590
Cotton-chopper and cultivator.....	L. Heller.....	378,958	Mar. 6	135	39, 40	42	993
Cotton-chopper and cultivator.....	R. T. Huggins.....	378,960	Mar. 6	138	40	42	993
Cotton-chopper and cultivator.....	T. F. Lawson.....	379,962	Mar. 27	1649	439	42	1305
Cotton-chopping machine.....	A. G. Deshazo.....	393,821	Dec. 4	123	34	45	1096
Cotton chopping, planting, and cultivating machine. Combined.....	D. W. Pilond.....	383,146	May 22	1901	496	43	906
Cotton cleaner. Seed.....	J. R. Hopkins.....	391,734	Oct. 23	2175	57	45	447
Cotton-cleaning machines. Elevator for.....	R. H. Wiggins.....	383,264	May 22	2074	544	43	939
Cotton-gin.....	P. L. and W. Brady.....	393,352	Nov. 27	1717	455	45	952
Cotton-gin.....	G. F. Brott.....	379,760	Mar. 20	1315	351	42	1231
Cotton-gin.....	G. F. Brott.....	394,640	Dec. 18	1374	359	45	1354
Cotton-gin.....	D. B. Haselton.....	383,223	May 22	2006	526	43	927
Cotton-gin.....	D. B. Haselton.....	395,230	Dec. 25	2351	602	45	1548
Cotton-gin.....	A. G. Jennings.....	378,167	Feb. 21	1237	325	42	754
Cotton-gin.....	C. T. Mason, Jr.....	381,561	Apr. 24	1903	501	43	405
Cotton-gin.....	C. T. Mason, Jr.....	381,565	Apr. 24	1901	502	43	405
Cotton-gin.....	P. V. Westfall.....	385,982	July 10	958	254	44	196
Cotton-gin rib.....	O. Washburne.....	390,321	Oct. 2	107	46	45	36
Cotton-gins. Feeder for.....	G. L. Rollins.....	391,195	Oct. 16	1429	382	45	291
Cotton. Machine for opening.....	H. A. Davis.....	384,826	June 19	1478	386	43	1419
Cotton, &c. Machine for opening and cleaning.....	D. H. Rice.....	376,346	Jan. 10	878	230	42	177
Cotton. Machine for opening, cleaning, and ginning? seed.....	J. R. Montague.....	383,751	May 29	2802	736	43	1086
Cotton-openers. Dust-trunk for.....	H. C. Perham.....	388,070	Aug. 21	1332	360	44	845
Cotton-openers. Evening mechanism for.....	J. C. Potter.....	377,329	Jan. 31	2330	676	42	475
Cotton-openers, &c. Evening mechanism for.....	J. C. Potter.....	386,756	July 21	2081	548	44	430
Cotton-openers. Yielding grate for.....	L. Hargreaves.....	379,065	Mar. 6	295	85, 86	42	1022
Cotton-picker.....	J. W. Wallis.....	378,635	Feb. 28	1924	510	42	896
Cotton-picker.....	J. W. Wallis.....	394,316	Dec. 11	868	229	45	1247
Cotton-picker's sack.....	T. Cliett.....	391,022	Oct. 16	1190	316	45	245
Cotton-press.....	P. L. and W. Brady.....	378,570	Feb. 28	1839	485	42	879
Cotton-press.....	J. E. Lockett.....	3 0,334	Apr. 3	40	15	43	10
Cotton-press.....	G. J. Loyall and J. M. Meyers.....	393,513	Nov. 27	1966	512	45	1001
Cotton-press.....	L. Miller.....	385,193	June 26	2028	519	43	1537
Cotton-press.....	R. S. Munger.....	391,125	Dec. 4	564	152	45	1179
Cotton-press.....	A. D. Thomas. (Reissue).....	10,902	Feb. 14	1089	286	42	720
Cotton-press attachment.....	W. F. Southard.....	379,828	Mar. 20	1433	380	42	1254
Cotton scraper and chopper.....	W. E. Morris.....	389,850	Sept. 18	1600	423	44	1392
Cotton scraper and sweep.....	W. R. Craig.....	388,398	Aug. 28	1867	499	44	951
Cotton scraper, chopper, and cultivator.....	J. C. McCandless.....	388,985	Sept. 4	261	69	44	1123
Cotton-stalk cutter.....	M. D. Oneal.....	379,596	Mar. 20	1079	287	42	1184
Cotton-sweep.....	T. W. Knight.....	382,533	May 8	995	252	43	708
Cotton-waste picker and lapper. Combined.....	W. H. Goldsmith.....	385,455	July 3	183	48	44	36
Cough-mixture.....	G. Wood.....	382,850	May 15	1143	.....	43	807
Counter-illuminating room.....	E. Francis.....	384,903	June 19	1586	413	43	1438
Counter-shaft.....	G. W. Bugbee and F. Danner.....	384,560	June 12	1079	282	43	1333

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Disg.	Vol.	Page.
Counter-skiving machine .....	E. F. Belding .....	390,551	Oct. 2	502	{ 131 132 }	45	101
Counter-stiffener machine .....	L. B. Russell .....	377,468	Feb. 7	183	43	42	530
Counter-stiffener machine .....	C. L. Tenney .....	380,464	Apr. 3	232	63	43	47
Counter-stiffeners. Mechanism for forming .....	P. Cox .....	385,745	July 10	619	162	44	128
Counting and recording the number of packages. Apparatus for .....	M. Gottfried .....	386,879	July 31	2304	606	44	479
Couplers. Manufacture of .....	J. H. Simpson .....	386,725	July 24	2040	{ 537 538 }	44	432
Coupling:							
See Band-coupling. Pipe or hose coupling.							
Belt-coupling. Pipe or tube coupling.							
Boiler pipe-coupling. Pipe-well coupling.							
Cable-coupling. Pole-coupling.							
Car-coupling. Rod-coupling.							
Cart-coupling. Shaft-coupling.							
Compression-coupling. Stove-pipe coupling.							
Drill-coupling. Thill-coupling.							
Friction-coupling. Trunk-strap coupling.							
Harness-coupling. Tube-coupling.							
Hoop-coupling. Tug-coupling.							
Hose-coupling. Vacuum-apparatus coupling.							
Hose and faucet coupling. Vehicle-coupling.							
Hose or pipe coupling. Vehicle-reach coupling.							
Pawl-and-ratchet coupling. Wagon-coupling.							
Pipe-coupling. Wagon-reach coupling.							
Water-closet coupling. Whiffletree-coupling.							
Yoke coupling. Yoke coupling.							
Coupling and brake. Combined .....	A. Hodgson .....	378,315	Feb. 21	1463	{ 382 383 }	42	796
Coupling-links, &c. Machine for bending and forging .....	M. Kennedy .....	379,474	Mar. 13	886	{ 238 239 }	42	1141
Cover for vessels .....	J. P. Rieffel .....	380,137	Mar. 27	1906	509	42	1355
Coverer and land-roller .....	P. C. Garrison .....	391,238	Oct. 16	1487	395	45	302
Covering .....	W. M. Suhr .....	383,599	May 29	2567	679	43	1038
Cowl .....	E. Betz .....	391,503	Oct. 23	1853	496	45	380
Cracker-box .....	L. J. Anger .....	392,942	Nov. 13	1121	291	45	818
Cracker-box .....	S. E. Parrish .....	393,852	Dec. 4	176	48	45	1105
Cracker-box cover .....	A. H. Pine and S. A. Norton .....	392,459	Nov. 6	424	105	45	674
Crackers. Show-box for .....	L. J. Anger .....	390,548	Oct. 2	499	130	45	100
Cradle .....	A. Duffy and C. J. Reling .....	373,389	Feb. 21	1564	409	42	816
Cradle and rocking-chair. Combined .....	W. Furl and R. Fraenzel .....	388,191	Aug. 21	1546	411	44	882
Cradle. Child's .....	T. J. Berens .....	391,292	Oct. 16	1566	415	45	316
Cradles. Fan attachment for .....	J. Rau .....	382,386	May 8	769	195	43	665
Cranberries. Device for picking .....	A. J. Dishbrow .....	378,775	Feb. 28	2121	560	42	932
Cranberry cleaning and separating machine .....	H. Chadwick .....	377,667	Feb. 7	477	123	42	585
Cranberry-gatherer .....	D. Crowell .....	390,843	Oct. 9	902	239	45	184
Cranberry-gathering machine .....	J. O. Shaw .....	389,114	Sept. 4	472	{ 121 122 }	44	1160
Crane .....	D. T. Lane .....	381,256	Apr. 17	1448	390	43	297
Crane. Portable .....	J. A. Huth .....	382,307	May 8	640	163	43	641
Crank and lever mechanism .....	R. H. Williams .....	380,338	Mar. 27	2041	545	42	1382
Crank and lever motion .....	W. A. Pitt .....	382,189	May 1	454	118	43	597
Crank. Anti-dead-center .....	T. C. Thomas .....	386,942	July 31	2398	630	44	497
Crank-arm. Extensible .....	G. Kibbe .....	385,717	July 10	576	149	44	120
Crank-bending machine .....	G. H. Howe .....	382,426	May 8	819	210	43	675
Crank-pin. Lubricating .....	G. R. Parker .....	382,896	May 15	1509	395	43	821
Crank-pins. Device for turning .....	T. Urquhart .....	388,745	Aug. 28	2352	634	44	1045
Crate .....	T. W. Lankford .....	376,321	Jan. 10	841	222	42	170
Crate. Berry or fruit .....	S. R. Kramer .....	378,098	Feb. 21	1129	295	42	735
Crate. Egg .....	W. R. Greiner .....	387,227	Aug. 7	43	9	44	580
Crate. Egg .....	W. R. Greiner .....	387,228	Aug. 7	44	10	44	580
Crate. Folding shipping .....	S. G. Travis .....	385,972	July 10	940	{ 249 250 }	44	192
Crayons. Automatic holder for lead .....	G. Sandell .....	394,401	Dec. 11	994	{ 260 261 }	45	1271
Creamer .....	E. H. Wilke .....	392,391	Nov. 6	321	79, 80	45	655
Creamer. Centrifugal .....	H. F. Beimling .....	382,506	May 8	952	241	43	700
Creaming-can .....	S. Y. Love .....	375,883	Jan. 3	208	57	42	44
Creaming-can .....	C. W. Parks .....	388,501	Aug. 28	2006	539	44	979
Creases in sheets of flexible or elastic material. Making .....	W. A. Lorenz .....	380,397	Apr. 3	135	40	43	29
Cremating filth and sewage. Apparatus for .....	J. Vladyka and W. M. Mitchell .....	379,189	Mar. 6	461	{ 130 131 }	42	1054
Creosote, &c. Obtaining .....	F. S. Clark .....	388,529	Aug. 28	2042	549	44	936
Crib .....	F. C. Hannahs .....	388,130	Aug. 21	1452	389	44	866
Crib or child's bed .....	D. J. Powers .....	394,010	Dec. 4	401	108	45	1148
Crimping-machine .....	H. Donovan .....	388,845	Sept. 4	53	14, 15	44	1082
Crimping-tongs .....	L. L. Sageendorp .....	387,658	Aug. 14	701	180	44	714
Cross-heads. Adjustable tapered wrist-pin for .....	T. L. Russell .....	385,326	July 3	294	75	44	59
Crossing. Acute curve .....	A. J. Moxham .....	383,063	May 15	1660	434	43	849
Crueible .....	J. E. Holmes .....	382,687	May 1	318	83	43	572
Crueible-furnace .....	C. C. Carroll .....	376,632	Jan. 17	1302	342	42	264
Crusher:							
See Clay-crusher. Ore-crusher.							
Clod-crusher. Rock-crusher.							
Harrow and clod-crusher .....							
Crusher and grinder. Combined hand .....	W. R. Sanford .....	386,165	July 17	1223	327	44	255
Crusher and pulverizer .....	M. Carr .....	392,537	Nov. 6	527	132	45	695
Crushing and grinding machine .....	A. Ball .....	386,286	July 17	1410	372	44	289
Crushing and grinding mill .....	J. F. Winchell .....	381,515	Apr. 17	1836	485	43	374



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Crushing-mill	A. E. Roe	380,821	Apr. 10	776	212	43	163
Crushing-mill roller	G. E. Noyes	381,172	June 5	491	135	43	1246
Crutch	J. F. Pluche	381,470	June 12	931	242	43	1306
Crutch attachment	W. J. Donald	390,011	Sept. 25	1838	487	41	1116
Cuckoo	G. R. Olney	388,439	Aug. 28	1923	513	11	962
Cue and ball rack and tip-fastener	F. Becker	391,677	Oct. 23	2084	564	45	429
Cues and other articles. Holder for	G. W. Graf	387,510	Aug. 7	463	122	41	663
Cuff. Apparel	W. Kahler	386,637	July 24	1913	506	41	399
Cuff. Apparel	W. Kahler	387,790	Aug. 14	888	220	41	749
Cuff-blank hemfolding and cutting machines. Stamp- ing device for	F. B. Ide	394,274	Dec. 11	800	213	45	1234
Cuff-fastener	T. E. Barrow	388,106	Aug. 21	1392	374	41	855
Cuff-fastener	C. L. Moore	391,264	Oct. 16	1523	401	45	308
Cuff-fastener	T. Prestwich	391,133	Dec. 4	581	156	45	1182
Cuff-fastening	F. W. Allen	380,415	Apr. 3	158	45	43	33
Cuff-holder	S. P. Babcock	378,862	Mar. 6	4	1	42	967
Cuff-holder	S. B. Bacon	386,101	July 10	1133	301	41	229
Cuff-holder	J. T. Bender	392,401	Nov. 6	337	83	45	658
Cuff-holder	J. H. Carder	382,754	May 15	1346	346	43	781
Cuff-holder	E. L. Clancy	385,239	June 26	2089	538	43	1352
Cuff-holder	G. J. Cline	386,382	July 17	1538	407	41	311
Cuff-holder	E. N. Dodge	391,739	Oct. 23	2170	586	45	416
Cuff-holder	R. C. Dutton	386,426	July 17	1614	421	41	333
Cuff-holder	J. D. Hall	377,753	Feb. 14	609	157	42	624
Cuff-holder	C. R. Hart	390,476	Oct. 2	393	100	45	81
Cuff-holder	E. R. Horton	378,094	Feb. 21	1122	293	42	731
Cuff-holder	R. J. Newman	394,206	Dec. 11	689	184	45	1212
Cuff-holder	C. F. Perry	389,973	Sept. 25	1783	473	41	1136
Cuff-holder	E. Pickhardt	386,345	July 17	1484	394	44	303
Cuff-holder	J. H. Reed	381,642	Apr. 24	2014	529	43	427
Cuff-holder	A. W. Sawyer	384,722	June 19	1321	345	43	1388
Cuff-holder	A. W. Sawyer	390,908	Oct. 9	994	260	45	201
Cuff-holder	L. A. Shattuck	392,232	Nov. 6	81	19	45	610
Cuff-holder	B. F. Walker	386,945	July 31	2401	631	44	493
Cuff-holder	W. J. Walters	376,457	Jan. 17	1039	272	42	211
Cuff-holder	R. Ward	395,193	Dec. 25	2283	586	45	1537
Cuff-holder. Adjustable	J. N. Clouse	375,731	Jan. 3	14	4	42	6
Cuff-holder. Adjustable	J. N. Clouse	386,001	July 10	983	262	41	201
Cuff-retainer. Adjustable	R. L. Pratt	376,547	Jan. 17	1164	306	42	233
Cuff-supporter	M. N. Nixon	385,681	July 3	520	135	41	102
Cuffs. Making	J. R. Morrison	394,592	Dec. 18	1293	339	45	1340
Cuffs. Making	A. Whitely	378,032	Feb. 14	1035	271	42	709
Culinary beater	E. Baltzley	378,863	Mar. 6	4	2	42	968
Culinary utensil	C. F. Whitney	385,688	July 3	529	138	41	104
Culinary vessel	A. B. Conde	383,943	June 5	152	45	43	1149
Culinary vessel	J. P. King	378,690	Feb. 28	2012	531	42	912
Culinary vessel	H. A. Mannig	378,700	Feb. 28	2024	531	42	915
Cultivation. Spacing device for garden	D. V. C. Rapp	391,077	Oct. 16	1266	336 337	45	259
Cultivator	S. L. Allen	387,332	Aug. 7	198	52	41	609
Cultivator	S. L. Allen	387,333	Aug. 7	200	52	41	610
Cultivator	T. W. Beal	380,783	Apr. 10	725	198	43	152
Cultivator	J. P. Black	378,651	Feb. 28	1949	518	42	901
Cultivator	D. S. Blue and L. Halter	382,945	May 15	1575	411	43	833
Cultivator	M. Bonse	383,094	May 22	1829	479	43	891
Cultivator	E. Case	394,334	Dec. 11	897	236	45	1253
Cultivator	J. W. Clark	388,832	Sept. 4	34	11	44	1079
Cultivator	E. B. Comly and D. Motherwell	384,021	June 5	263	75	43	1172
Cultivator	E. R. Conklin	384,347	June 12	765	200	43	1274
Cultivator	S. B. Cunningham	390,007	Sept. 25	1831	485	41	1445
Cultivator	E. Dinnity	392,997	Nov. 20	1216	316	45	844
Cultivator	S. Draper	387,778	Aug. 14	874	225	44	746
Cultivator	E. East	381,002	Apr. 10	1063	282	43	215
Cultivator	J. F. Glidden and P. W. Vaughan	378,089	Feb. 21	1115	292	42	733
Cultivator	H. M. Godfrey	386,702	July 24	2010	531	41	417
Cultivator	H. H. Hooker	390,783	Oct. 9	816	217	45	168
Cultivator	E. A. Hoyt	380,285	Mar. 27	2102	562	42	1395
Cultivator	A. J. Kern	393,244	Nov. 20	1556	407	45	913
Cultivator	J. W. Kraus	388,206	Aug. 21	1567	416 417	44	887
Cultivator	J. W. and N. P. Lehr	389,088	Sept. 4	411	108	44	1151
Cultivator	B. P. Lynch	378,141	Feb. 21	1203	313	42	748
Cultivator	J. Macphail and F. M. Needham	376,747	Jan. 24	1476	389	42	306
Cultivator	J. G. Mallory	386,146	July 17	1201	319	44	250
Cultivator	H. L. McCoy	382,180	May 1	442	115	43	594
Cultivator	C. Mendenhall	394,283	Dec. 11	817	216	45	1237
Cultivator	C. E. Morton	390,506	Oct. 2	438	113	45	89
Cultivator	D. Motherwell and E. B. Comly	383,186	May 22	1952	512	43	916
Cultivator	A. J. Olney	386,489	July 24	1707	451	44	360
Cultivator	J. F. Packer	382,184	May 1	447	117	43	596
Cultivator	C. E. Patrie	383,541	May 29	2502	660 661	43	1024
Cultivator	T. Pepper and D. V. Carhart	391,641	Oct. 23	2036	551	45	419
Cultivator	G. W. Randolph	376,008	Jan. 3	394	104	42	79
Cultivator	E. and J. P. Rehart	377,273	Jan. 31	2214	593	42	460
Cultivator	V. Rhodes	381,169	Apr. 17	1325	354	43	274
Cultivator	N. Rozgy	378,463	Feb. 28	1686	442	42	847
Cultivator	C. M. and C. D. R. Sandberg	393,667	Nov. 27	2201	577	45	1049
Cultivator	J. Schermerhorn and T. Jury	378,377	Feb. 21	1549	405	42	814
Cultivator	J. H. Scott	394,619	Dec. 18	1337	350	45	1347
Cultivator	J. Shank	380,948	Apr. 10	972	258	43	198
Cultivator	J. Shack	377,174	Jan. 31	2097	552 553	42	433
Cultivator	W. Sobey	389,860	Sept. 18	1621	428	41	1395

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De'g.	Vol.	Page.
Cultivator.....	C. A. Swearingen.....	387,751	Aug. 14	830	216	44	739
Cultivator.....	W. S. Templin.....	385,646	July 3	472	122	41	92
Cultivator.....	H. N. Timms.....	386,507	July 24	1743	461	44	366
Cultivator.....	C. Whitehall.....	379,430	Mar. 13	822	221	42	1128
Cultivator.....	W. H. Wiggins.....	395,098	Dec. 25	2121	548	45	1509
Cultivator and harrow.....	H. G. Cady.....	387,856	Aug. 14	984	256	44	769
Cultivator and harrow. Combined.....	J. P. Howe.....	390,126	Sept. 25	2016	537	44	1483
Cultivator and plow.....	J. A. Elliott.....	388,853	Sept. 4	73	19	44	1087
Cultivator and scraper combined.....	J. A. Scroggs.....	377,781	Feb. 14	681	172	42	640
Cultivator and seeder. Disk.....	B. C. Dorsey.....	384,748	June 19	1356	354	43	1395
Cultivator attachment.....	W. Nave.....	376,336	Jan. 10	864	227	42	175
Cultivator. Corn.....	H. L. Pharris.....	388,912	Sept. 4	159	42	41	1103
Cultivator. Cotton.....	T. Griffin.....	387,569	Aug. 7	602	156	44	687
Cultivator. Cotton.....	W. H. Irwin and G. W. Hairgrove.....	382,162	May 1	417	109	43	590
Cultivator. Cotton.....	C. S. McCall and J. L. Napier.....	383,743	May 29	2780	732	43	1083
Cultivator. Disk.....	R. K. Swift.....	379,295	Mar. 13	628	172	42	1091
Cultivator-fender.....	J. W. Kennedy.....	381,701	Apr. 24	2100	549	43	445
Cultivator-foot.....	S. R. Estep.....	377,998	Feb. 14	993	259	42	700
Cultivator for listed corn.....	J. W. Brown.....	380,549	Apr. 3	369	105	43	75
Cultivator, grain-drill, and harrow.....	W. B. Roberts.....	383,076	May 15	1789	463	43	874
Cultivator. Hand.....	E. C. Ellwood.....	384,351	June 12	771	201	43	1275
Cultivator. Hillside.....	E. C. Wiley.....	383,607	May 29	2576	682	43	1040
Cultivator. Hoe.....	J. W. Mulvey.....	384,267	June 12	639	172	43	1252
Cultivator-knife.....	G. W. Hoskins and J. Ray.....	393,761	Dec. 4	41	13	45	1080
Cultivator. Listing.....	T. J. McCormick.....	375,944	Jan. 3	295	79, 50	42	61
Cultivator. Orchard and vineyard.....	G. W. Campbell.....	387,765	Aug. 14	857	221	41	743
Cultivator. Orchard and vineyard.....	J. Morgan.....	390,305	Oct. 2	142	40	45	32
Cultivator-shields. Attachment for.....	J. T. Downey and G. P. Funkhouser.....	393,069	Nov. 20	1348	352	45	870
Cultivator-shovel.....	D. Leigh.....	385,275	June 26	2159	551	43	1564
Cultivator-shovel. Reversible.....	J. A. Johnson.....	390,479	Oct. 2	397	101	45	82
Cultivator-spindle.....	J. C. Bird.....	392,533	Nov. 6	521	131	45	695
Cultivator. Steam.....	C. R. Sack.....	386,161	July 17	1218	325	44	254
Cultivator. Sulky.....	J. C. Bird. (Reissue).....	10,959	Sept. 18	1630	431	44	1398
Cultivator. Sulky.....	J. A. Hazlewood.....	386,583	July 24	1849	489	41	385
Cultivator-tooth.....	T. H. Noxon.....	392,060	Oct. 30	2655	722	45	551
Cultivator. Walking.....	E. P. Lynch.....	384,048	June 5	399	88	43	1180
Cultivator. Wheat and corn.....	W. H. Horn.....	385,670	July 3	502	129	41	97
Cultivator. Wheel.....	W. L. Cassaday.....	381,985	May 1	139	33	43	540
Cultivator. Wheel.....	R. Cohen.....	386,108	July 17	1144	304	44	238
Cultivator. Wheel.....	J. F. Hall.....	392,728	Nov. 13	816	207	45	758
Cultivator. Wheel.....	E. P. Lynch.....	389,158	Sept. 4	544	137	44	1172
Cultivator. Wheel.....	W. Sobey.....	389,859	Sept. 18	1619	427	44	1395
Cultivators. Lifting-spring for.....	C. R. Davis.....	377,993	Feb. 14	979	256	42	699
Cultivators. Plow-carriage for steam.....	C. R. Sack.....	386,162	July 17	1219	326	44	254
Cultivators. Spring-tooth attachment for.....	J. R. Young.....	390,276	Oct. 2	106	30	45	21
Cultivators. Sweep for corn and cotton.....	E. Cowan.....	392,590	Nov. 13	611	153	45	718
Cup.....							
See Egg-cup.....	Medicine-cup.....						
Filter-cup.....	Oil-cup.....						
Grease-cup.....	Paint-cup.....						
Lubricant-cup.....							
Cup-holder.....	T. L. Chapman.....	392,105	Oct. 30	2738	744	45	567
Cupola-furnace.....	C. Sahler.....	386,269	July 17	1389	366	44	285
Curb-stop.....	A. S. Staats and J. Illingworth.....	394,733	Dec. 18	1520	398	45	1366
Curbing of artificial stone. Constructing street.....	C. J. Everett.....	382,802	May 15	1386	364	43	794
Curculio-catcher.....	H. Lutts.....	386,546	July 24	1801	475	44	376
Curling-comb.....	C. S. Levy.....	379,650	Mar. 20	1156	306	42	1199
Curling-iron.....	C. H. Bissell.....	379,443	Mar. 13	837	226	42	1132
Curling-iron.....	W. Lamb.....	391,476	Oct. 23	1820	426	45	373
Curling-iron heater.....	F. A. Frick.....	392,151	Oct. 30	2808	762	45	521
Current-meter.....	P. Kollarewsky.....	380,262	Mar. 27	2072	554	42	1389
Current motive and regulating device. Alternating.....	E. Thomson.....	377,217	Jan. 31	2164	571	42	446
Current-motor.....	M. McCarty.....	386,255	July 17	1369	361	44	281
Current regulator. Alternating.....	E. Thomson.....	382,336	May 8	688	174	43	649
Current transformer. Alternating.....	R. Kennedy.....	378,320	Feb. 21	1460	384	42	797
Curry-comb.....	G. W. Blythe.....	386,573	July 24	1836	425	44	383
Curry-comb.....	L. M. Devore.....	389,451	Sept. 11	993	265	44	1269
Curry-comb.....	G. F. Dietz.....	380,250	Mar. 27	2058	550	42	1386
Curry-comb.....	U. B. Hind.....	381,550	Apr. 24	1886	498	43	401
Curry-comb.....	H. W. Lawrence.....	390,484	Oct. 2	402	103	45	83
Curry-comb.....	F. S. Neal.....	381,637	Apr. 24	2010	527	43	426
Curry-comb.....	D. P. Tipton.....	384,798	June 19	1427	374	43	1410
Curry-comb.....	D. P. Tipton.....	384,799	June 19	1429	375	43	1410
Curry-comb.....	D. P. Tipton.....	384,800	June 19	1430	375	43	1411
Curtain attachment. Window.....	D. C. Seares and E. Caldwell.....	389,982	Sept. 25	1799	477	44	1438
Curtain bar. Window.....	I. B. Tripp.....	381,189	Apr. 17	1348	360	43	278
Curtain. Drop.....	J. P. Smith.....	379,614	Mar. 20	1105	294	42	1189
Curtain-fastener.....	W. M. Buchnau.....	388,018	Aug. 21	1218	339	41	829
Curtain-fastening.....	S. Woolley.....	393,286	Nov. 20	1623	426	45	925
Curtain-fixture.....	Z. F. Bryant.....	382,797	May 15	1380	362	43	793
Curtain-fixture.....	C. Buckley.....	382,509	May 8	956	242	43	701
Curtain-fixture.....	J. Crenner.....	376,143	Jan. 10	596	159	42	125
Curtain-fixture.....	G. R. G. Jones.....	391,369	Oct. 16	1686	441	45	335
Curtain-hanger.....	J. W. Dorrington and L. G. Fay.....	388,846	Sept. 4	56	15	44	1083
Curtain-hanger. Window.....	C. A. Williams.....	388,329	Aug. 21	1759	470	44	925
Curtain-pole.....	J. Rings.....	380,932	Apr. 10	951	252	43	194
Curtain-pole. Adjustable or extension.....	A. D. Field.....	378,087	Feb. 21	1112	291	42	732
Curtain-pole bracket.....	W. O. Bement.....	375,981	Jan. 3	319	91	42	71
Curtain-pole bracket.....	H. Renbel and T. Lindberg.....	388,151	Aug. 21	1493	397	44	872
Curtain-pole covering.....	A. D. Field.....	378,085	Feb. 21	1111	290	42	732

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Curtain-pole. Upholstered	A. D. Field	378,086	Feb. 21	1111	291	42	732
Curtain ring	W. L. Braddock	387,392	Aug. 7	290	71	44	627
Curtain ring or hanger	J. W. Leslie	388,055	Aug. 21	1308	353	41	840
Curtain-roller bracket and pole attachment	J. W. Greene	379,309	Mar. 13	650	176	42	1094
Curtain-roller bracket, sash-lock, &c.	S. H. Scott	391,922	Oct. 30	2448	661	45	511
Curtain-roller support	G. L. Tyler	381,041	Apr. 10	1121	301	43	226
Curtain-support	J. F. Robinson and C. W. Gouert	376,911	Jan. 21	1730	455	42	353
Curtains. Screw-elevator for	W. S. Long	386,328	July 17	1464	387	44	299
Curve-scriber	E. A. Gieseler	390,360	Oct. 2	230	61	45	48
Cushion: See Billiard-cushion. Plumber's air-cushion.							
Cuspidor	J. P. Annen and F. H. Fox	385,150	June 26	1979	506	43	1527
Cuspidor	F. B. Clench	387,622	Aug. 14	652	169	41	704
Cuspidor	G. Kochendorfer and J. Roth	380,631	Apr. 3	483	136	43	98
Cuspidor	D. H. Murphy	378,610	Feb. 28	1890	500	42	889
Cuspidor	D. H. Murphy	390,614	Oct. 2	574	152	45	115
Cuspidor	J. L. O'Connor	384,587	June 12	1118	295	43	1340
Cuspidor	J. L. O'Connor	386,217	July 17	1316	318	44	271
Cuspidors and the like. Lifter for	W. H. Smith	388,083	Aug. 21	1351	364	44	848
Cut-off and filter. Rain-water	W. W. Bays	390,943	Oct. 9	1042	276	45	211
Cut-off and pressure-regulator. Combined	A. Frank	392,602	Nov. 13	632	159	45	722
Cut-off. Automatic	J. J. Brown and G. F. Edgington	391,877	Oct. 30	2384	646	45	498
Cut-off. Automatic	W. G. Browne	380,987	Apr. 10	1042	275	43	211
Cut-off for engines	J. J. Tonkin	376,616	Jan. 17	1271	333	42	258
Cut-off for engines. Adjustable	J. Rees	392,460	Nov. 6	424	105	45	674
Cut-off for spouts	F. Driller	381,990	May 1	152	39	43	513
Cut-off for steam-engines	C. P. Henrikson	391,320	Oct. 16	1599	423	45	322
Cut-off for steam-engines	B. V. Nordberg	381,213	June 5	551	151	43	1228
Cut-off for steam-engines. Draft	A. M. Zimmerman	391,430	Dec. 11	1032	271	45	1277
Cut-off for water-pipes. Automatic	G. P. Herndon	392,803	Nov. 13	933	239	45	781
Cut-off for water-service supply-pipes. Automatic thermo-electric	E. A. Newman	389,096	Sept. 4	421	111	41	1153
Cut-off for water-tanks. Automatic	J. Pocknell	375,948	Jan. 3	301	81	42	62
Cut-off gear for steam-engines	B. V. Nordberg	394,501	Dec. 11	1126	292	45	1295
Cut-off or regulator for gaug-boilers. Automatic	W. U. Fairbairn	394,257	Dec. 11	777	206	45	1228
Cut-off regulator	C. W. Lawrie	376,826	Jan. 24	1610	422	42	539
Cut-off to prevent freezing in water-pipes	H. K. Whitner	386,098	July 10	1127	300	44	528
Cut-off valve	R. Bentley and T. Ford	380,474	Apr. 3	247	68	43	51
Cut-off valve	W. W. St. John	386,365	July 17	1511	400	44	309
Cut-off valve	A. Van Gaysling	384,190	Apr. 17	1349	361	43	279
Cut-off valve gear. Telescopic	C. W. Cronk	376,516	Jan. 17	1126	294	42	230
Cut-out	C. D. Wright	385,494	July 3	245	63	41	49
Cutlery. Show-case for	E. A. Nelms	384,062	June 5	329	93	43	1183
Cutter:							
See Band-cutter. Nail-cutter.							
-Beading-cutter. Paper-cutter.							
-Bolt-cutter. Pipe-cutter.							
-Button-hole cutter. Rod-cutter.							
Cake-cutter. Rope-cutter.							
Channel-cutter. Rotary cutter.							
Cigar-cutter. Sheet-metal-scroll cutter.							
Cigar-tip cutter. Shell-cutter.							
Cigar-tuck cutter. Sod-cutter.							
Corn-cutter. Stalk-cutter.							
Cotton-stalk cutter. Stalk and clod cutter.							
Dado-cutter. Tart-cutter.							
Envelope-cutter. Tobacco-cutter.							
Feed-cutter. Tobacco and cigar cutter.							
Fuse-cutter. Tube-cutter.							
Gold-leaf cutter. Vegetable-cutter.							
Hog-tendon cutter. Vegetable or root cutter.							
Ice-cutter. Wall-paper cutter.							
Key-seat cutter. Washer-cutter.							
Meat-cutter. Weed-cutter.							
Metal-cutter. Wire-cutter.							
Mining-machine cutter.							
Cutter and cutter-bar	C. E. Morton and S. F. Brown	390,505	Oct. 2	437	113	45	89
Cutter-bar	W. F. Kendrick	383,057	May 15	1764	456	43	869
Cutter-bar keeper. Adjustable	J. Crist and J. S. Alexander	385,446	July 3	170	46	44	34
Cutter-head	J. T. Gzybowski	394,175	Dec. 11	641	172	45	1203
Cutter-head	W. H. Lamson	381,799	Apr. 24	2237	586	43	470
Cutter-head	G. S. Shimer	385,325	June 26	2238	573	43	1578
Cutter-head	S. J. Shimer	387,925	Aug. 14	1102	292	44	792
Cutter-head and cutter-head gage	S. J. Shimer	380,530	Apr. 3	336	96	43	68
Cutter-head and means for adjusting the cutters of the same	W. R. Allen	381,491	June 12	965	251	43	1212
Cutter-heads. Tool-holder for	S. J. Shimer	387,924	Aug. 14	1101	292	44	791
Cutter-heads. Tread-guard for	J. L. Packard	388,578	Aug. 28	2115	567	44	1000
Cutter-supporting bar and cutter	C. D. Wells	380,304	Mar. 27	2124	568	42	1299
Cutting apparatus	J. C. Voss	379,881	Mar. 20	1531	404	42	1272
Cutting-die	J. E. Richardson	391,558	Oct. 23	1927	519	45	397
Cutting-machine	A. J. L. Loretz	383,892	June 5	65	20	43	1133
Cutting-press	W. G. Entekkin	386,459	July 24	1670	441	44	353
Cutting tapering or irregularly-shaped holes. Tool for	F. Josett	389,389	Sept. 11	900	235	44	1251

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Cylinder .....	T. B. Cardon and G. Lundberg .....	377,234	Jan. 31	2184	{ 576 577 }	{ 42 43 }	449
Cylinders with toothed strips of metal. Device for clothing grooved .....	F. Houser and W. H. Clarkson .....	381,473	Apr. 17	1767	472	43	360
Dado-cutter .....	W. R. Fox .....	381,218	June 12	615	{ 165 166 }	{ 43 43 }	1248
Dado-cutter .....	J. R. Mentzer .....	384,209	June 5	546	150	43	1237
Dam gate, Splash .....	G. H. Coldwell .....	392,499	Nov. 6	474	119	45	685
Dam. Wicket .....	B. F. and J. C. Thomas .....	382,395	May 8	779	198	43	667
Damper. Automatic .....	R. H. Arnold and E. S. Staples .....	385,692	July 10	539	141	44	113
Damper. Automatic .....	W. A. J. Beauchamp .....	377,136	Jan. 31	2049	{ 536 537 }	{ 42 42 }	422
Damper. Fire-place .....	J. D. Vance .....	389,424	Sept. 11	947	248	41	1361
Damper for cooking-stoves, &c. Regulating .....	J. Mahedy .....	387,091	July 31	2666	685	44	537
Damper. Isothermal .....	J. H. Haldeman .....	391,244	Oct. 30	2338	634	45	429
Damper. Pipe .....	R. Baile .....	393,498	Nov. 27	1940	508	45	995
Damper-regulator .....	G. A. Goodenough .....	377,557	Feb. 7	311	79	42	555
Damper-regulator .....	E. W. Haynes .....	383,950	June 5	161	48	43	1151
Damper-regulator .....	R. J. Hoffman .....	392,514	Nov. 6	495	124	45	629
Damper-regulator .....	F. Leclerc .....	388,699	Aug. 28	2295	617	44	1033
Damper-regulator .....	J. St. Mary .....	377,785	Feb. 14	685	173	42	641
Damper-regulator .....	J. H. Weitmyer .....	377,657	Feb. 7	465	119	42	583
Damper-regulator for furnaces .....	G. A. Goodenough .....	386,811	July 31	2180	574	44	458
Damper-regulator. Furnace .....	W. C. Higgins .....	379,395	Mar. 13	769	208	42	1117
Damper. Stove-pipe .....	J. E. Feuner .....	385,923	July 10	883	234	44	181
Damper. Stove-pipe .....	J. C. Ingalls .....	380,204	Mar. 27	1996	534	42	1373
Damper. Stove-pipe .....	S. Kepner .....	393,242	Nov. 20	1552	406	45	912
Damper. Stove-pipe .....	J. M. Williams, Jr. .....	382,126	May 1	368	96	43	581
Dampers. Adjusting device for .....	F. A. Garrett .....	378,671	Feb. 28	1984	526	42	907
Dampers. Locking device for stove-pipe .....	V. Doane, Jr. .....	387,215	Aug. 7	28	6	44	578
Dampers. Ratchet for stove .....	D. W. Roland .....	389,109	Sept. 4	467	120	44	1160
Dampers. Time mechanism for .....	J. Fries .....	393,063	Nov. 20	1302	339	45	861
Darning-last .....	C. Austin .....	389,683	Sept. 18	1352	354	44	1342
Dash-board .....	L. E. McKinnon .....	391,420	Oct. 23	1738	464	45	356
Dash-board .....	B. F. Thomas .....	383,601	May 29	2569	680	43	1039
Dash-pot .....	J. D. Cité .....	393,690	Nov. 27	2233	586	45	1056
Dating-indicator .....	H. J. Meixell .....	389,972	Sept. 25	1782	473	44	1436
Dating device .....	W. H. Dietz .....	384,026	June 5	274	77	43	1173
Decorations. Transfer .....	C. J. B. Jenson .....	389,815	Sept. 18	1536	.....	44	1380
Decoy-duck .....	C. D. Gammon .....	390,587	Oct. 2	546	144	45	110
Decoy-duck .....	W. D. Trimble .....	378,410	Feb. 21	1601	420	42	823
Delivery-box. Automatic .....	E. G. Hoffmann .....	389,025	Sept. 11	648	{ 166 167 126 127 }	{ 44 43 }	1202
Demagnetizer .....	J. Greaves .....	384,152	June 5	459	.....	43	1209
Demijohn. Covered .....	G. W. Banker .....	385,438	July 3	160	44	44	33
Dental abrading-disk .....	C. W. F. Holbrook .....	382,609	May 8	1115	286	43	732
Dental anodyne .....	R. I. Hunter .....	394,693	Dec. 18	1460	.....	45	1371
Dental articulator .....	J. L. P. Leman .....	386,711	July 24	2022	533	44	419
Dental cabinet .....	J. W. Penberthy .....	386,492	July 24	1711	453	44	361
Dental chair .....	J. W. Cooper .....	378,433	Feb. 28	1639	{ 431 432 }	{ 42 42 }	838
Dental chair .....	D. Stuck .....	376,616	Jan. 3	403	106	42	80
Dental chair .....	L. Stuck .....	381,940	Apr. 10	1120	300	43	226
Dental chairs. Mechanism for lowering .....	L. Stuck .....	390,816	Oct. 9	861	228	45	176
Dental drill .....	A. H. Winn .....	381,196	Apr. 17	1361	364	43	281
Dental electric apparatus .....	C. A. Eisenhart .....	388,482	Aug. 28	1982	532	44	975
Dental engine .....	C. Doriot .....	389,796	Sept. 18	1512	399	44	1376
Dental engine .....	J. Hood and S. H. Reynolds .....	381,783	Apr. 21	2213	579	43	466
Dental engine .....	J. Hood and S. H. Reynolds .....	388,200	Aug. 21	1559	{ 414 415 }	{ 44 44 }	886
Dental engine .....	W. A. Knowles .....	385,812	July 10	714	187	41	147
Dental engine .....	W. A. Knowles .....	386,476	July 24	1692	416	41	357
Dental engine .....	W. A. Knowles .....	395,150	Dec. 25	2214	568	45	1526
Dental engine .....	W. B. Mayn .....	378,204	Feb. 21	1288	{ 340 341 }	{ 42 42 }	765
Dental engine .....	H. C. Register .....	375,834	Jan. 3	145	42	42	33
Dental engine hand-piece .....	H. S. Grace .....	380,433	Apr. 3	181	50	43	37
Dental engine hand-piece .....	S. I. Scott .....	395,252	Dec. 25	2380	609	45	1554
Dental engine hand-piece .....	A. A. Wilcox .....	391,349	Oct. 16	1637	433	45	329
Dental flasks. Heater for .....	R. M. Chase .....	384,509	June 12	1005	262	43	1319
Dental foil .....	T. J. Henry .....	382,085	May 1	317	83	43	572
Dental gold-pellet package .....	E. G. Kearsing .....	376,889	Jan. 24	1700	444	42	347
Dental hammer and plugger. Electro-magnetic .....	P. Helmer. (Reissue) .....	10,940	June 26	2257	578	43	1581
Dental hand-piece .....	W. D. Williams .....	382,672	May 8	1206	313	43	750
Dental hand-piece .....	W. D. Williams .....	382,673	May 8	1207	313	43	751
Dental linings, &c. Foil for .....	J. A. Daly .....	390,950	Oct. 9	1051	278	45	213
Dental mandrel .....	C. W. F. Holbrook .....	376,653	Jan. 17	1334	350	42	269
Dental matrix .....	H. P. Booth .....	388,619	Aug. 28	2177	585	44	1012
Dental matrix .....	H. P. Booth .....	388,620	Aug. 28	2178	585	44	1012
Dental matrix .....	J. H. Reed .....	376,546	Jan. 17	1165	306	42	238
Dental mixing-dish .....	J. A. Kimball .....	386,750	July 24	2078	547	41	429
Dental mouth-opening forceps .....	F. H. Brown .....	390,561	Oct. 2	516	135	45	104
Dental operating-chair .....	W. D. Mayfield .....	385,468	July 3	200	52, 53	44	40
Dental operations. Electrical apparatus for .....	C. A. Eisenhart. (Reissue) .....	10,907	Mar. 6	498	139	42	1060
Dental or other chair .....	H. D. Justi .....	382,473	May 8	902	230	43	689
Dental pencil .....	J. A. McClelland .....	375,827	Jan. 3	136	40	42	32
Dental plate .....	J. F. Sargent .....	385,142	June 26	1957	501	43	1523
Dental plate. Foil-lined .....	J. A. Daly .....	390,654	Oct. 9	636	169	45	135
Dental plate. Rubber .....	E. W. Talbot .....	377,177	Jan. 31	2099	553	42	434
Dental plates and bridges. Making .....	C. C. Carroll .....	380,021	Mar. 27	1742	467	42	1322
Dental plates. Model for .....	P. J. Malone .....	382,539	May 8	1008	257	43	711
Dental plugger .....	W. G. A. Bonwill .....	377,984	Feb. 14	969	{ 252 253 }	{ 42 42 }	697

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's.	Vol.	Page.
Dental plugger	W. G. A. Bonwill	378,920	Mar. 6	84	24	42	982
Dental plugger	B. S. Byrnes	376,581	Jan. 17	1207	319	42	247
Dental plugger	B. W. Haines	381,364	Apr. 17	1601	428	43	324
Dental plugger	P. C. Morse	381,844	Apr. 24	2322	603	43	486
Dental plugger	D. D. Peabody	387,655	Aug. 14	698	179	44	713
Dental plugger. Pneumatic	L. E. Custer	394,461	Dec. 11	1079	280	45	1286
Dental plugger. Pneumatic	W. S. Sherman	383,152	May 22	1908	499	43	907
Dental tool	J. P. Carmichael	392,006	Oct. 30	2574	{ 699 700 }	45	535
Dental tool	W. C. Deane	391,302	Oct. 16	1578	418	45	318
Dental tool	G. Evans	390,576	Oct. 2	532	139	45	107
Dental tool	J. P. Morris	384,863	June 19	1534	399	43	1429
Dental tool	J. J. R. Patrick	383,367	May 22	2215	588	43	965
Dental-tool holder	J. A. Kimball	381,143	Apr. 17	1289	345	43	268
Dentifrice	J. Schwartz	380,700	Apr. 10	596	.....	43	128
Dentistry. Operative	C. H. Land	385,718	July 10	578	150	44	120
Dentist's disk-holder	W. B. Miller	381,266	Apr. 17	1462	393	43	300
Depilating and bating	L. E. Custer	387,581	Aug. 7	591	154	44	685
Denture. Artificial	W. H. Miller	391,062	Oct. 16	1244	334	45	256
Dentures. Removable bridge for artificial	C. M. Richmond	390,521	Oct. 2	457	118	45	93
Depilating and bating	J. Townsend	381,730	Apr. 24	2145	.....	43	453
Depolarizing compound	A. F. W. Partz	379,180	Mar. 6	446	.....	42	1051
Deposit box. Safety	H. Gross	386,400	July 17	1561	413	44	318
Depth-gage	W. D. Spencer	379,423	Mar. 13	812	218	42	1126
Derrick	W. Bentley	377,544	Feb. 7	294	74.75	42	551
Derrick	D. H. Cram	382,141	May 1	387	101	43	584
Derrick	O. Crosby	388,839	Sept. 4	45	13	44	10-1
Derrick	J. Lightham	376,037	Jan. 3	436	116	42	87
Derrick. Hay	W. A. Hooper and R. F. Hamblen	3-3,358	May 22	2201	581	43	962
Derrick. Hay	A. L. Kaue	380,206	Mar. 27	1998	534	42	1373
Derrick. Portable	P. Rabbitt	377,576	Feb. 7	333	85	42	559
Desiccating materials. Apparatus for	T. R. Houseman and C. B. M. Sprowles	386,781	July 24	2125	{ 558 559 }	44	437
Desk	C. Larson	379,232	Mar. 13	538	150	42	1073
Desk	I. Melton	380,045	Mar. 27	1774	474	42	1328
Desk	F. E. Waring	395,194	Dec. 25	2284	{ 586 587 }	45	1537
Desk. Advertising or order	H. M. Dexter	392,856	Nov. 13	1009	258	45	797
Desk and blackboard. Combined	S. J. Talbott	393,934	Dec. 4	293	79	45	1128
Desk and card-holder. Portable	E. P. Glascock	394,850	Dec. 18	1732	449	45	1426
Desk and organ. Combined	O. E. and G. C. Wick	385,031	June 26	1786	461	43	1488
Desk and seat. Adjustable school	O. G. Docken	378,875	Mar. 6	28	7.8	42	972
Desk and seat. Automatic school	J. H. Stiggleman	392,892	Nov. 13	1051	271	45	806
Desk and type-writer cabinet. Combined	W. H. Porter. (Reissne)	10,924	Apr. 24	2405	625	43	504
Desk appendage. Writing	E. Lemberger	387,082	July 31	2593	683	44	535
Desk. Folding	J. H. Eden and G. E. Guthrie	393,364	Nov. 27	1737	{ 459 460 }	45	956
Desk or book-holder. Reading	H. B. Greenawalt and J. B. Urban	376,593	Jan. 17	1227	323	42	250
Desk or other furniture. School	E. Haney	389,607	Sept. 18	1526	404	44	1378
Desk. Reading	A. J. Williford	389,038	Sept. 4	338	88	44	1136
Desk. School	H. B. Hitesbaw	390,859	Oct. 9	921	213	45	187
Desk. School	M. W. Kidder	388,417	Aug. 28	1893	505	44	956
Desk. School	E. Murray	385,316	June 26	2225	570	41	1576
Desk-signal	J. C. Parker	391,185	Oct. 16	1414	378	45	2-8
Desks. Cabinet attachment for	J. Thompson	393,938	Dec. 4	298	81	45	1129
Detergent	C. C. Parsons	382,322	May 8	664	.....	43	645
Detergent	C. C. Parsons	382,323	May 8	666	.....	43	615
Detonating ball	S. Armstrong	387,574	Aug. 7	582	152	44	624
Dextrine. Refining	C. H. Matthiessen and J. Krieger	382,368	May 8	738	.....	43	659
Dial. Indicator	D. L. Mitchell	376,103	Jan. 10	530	141	42	113
Dial. Medicine	M. B. Wesson	391,996	Oct. 30	2556	693	45	532
Dial. Time-piece	M. V. B. Ethridge	393,000	Nov. 20	1218	317	45	844
Dial. Time-piece	M. V. B. Ethridge	394,845	Dec. 18	1724	{ 447 448 }	45	1424
Diamido compounds and of azo colors produced therefrom. Production of new	A. Weinberg	380,067	Mar. 27	1805	.....	42	1335
Diamond-setting	G. Heppding	393,232	Nov. 20	1338	403	45	909
Dibble	T. Sells	385,324	June 26	2237	573	43	1518
Die:							
See Bolt-heading die.	Pipe-threading die.						
Coal-hod die.	Relief-die.						
Embossing-die.	Screw-cutter die.						
Forging-die.	Screw-cutting die.						
Heel-making die.	Sole-cutting die.						
Leather-cutting die.	Wire-drawing die.						
Metal-bending die.							
Die and dice-box	R. F. DeGrain	386,577	July 24	1840	486	44	384
Die and die-holder for drawing	W. Alderdice	376,222	Jan. 10	707	188	42	145
Die for making cluster settings	C. Blacard	376,507	Jan. 17	1109	291	42	227
Die for making diamond-settings	C. Blacard	376,508	Jan. 17	1110	291	42	227
Die-grinding mechanism	M. Brock	380,985	Apr. 10	1037	215	43	210
Digester	F. C. Rowland	376,612	Jan. 17	1262	{ 330 331 }	42	256
Digger:							
See Post-hole digger.	Road-digger.						
Potato-digger.							
Dike or breakwater	L. M. Haupt	380,569	Apr. 3	397	{ 113 114 }	43	81
Dinner-pot	J. P. McKee	391,174	Oct. 16	1402	374	45	285
Direct-acting engine	G. A. Barth	381,186	June 5	510	{ 139 140 }	43	1220
Directory-indicator for buildings, &c	T. J. McTighe	382,997	May 15	1650	431	43	847
Dish-holder	C. H. Latham	378,692	Feb. 28	2014	532	42	913

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Dish-washer	W. D. Miller	388,990	Sept. 4	266	70	41	1124
Dish-washer	L. Sloan	393,671	Nov. 27	2308	578	45	1050
Dish-washer	J. S. Stevens and G. Caunter	378,152	Feb. 21	1217	317	42	750
Dish-washing machine	J. G. Cochran and J. Kritch	391,782	Oct. 30	2236	608	45	469
Dishes. Machine for making chip	C. Spofford	389,417	Sept. 11	940	217	44	1259
Disinfectant	A. Dupré and C. N. Hake	383,559	May 29	2524	579	43	1028
Disinfecting apparatus	R. S. West	393,017	Nov. 20	1244	333	45	858
Disintegrator and strainer	W. P. Dodson	386,004	July 10	1065	285	44	218
Disks from wood. Machine for cutting	C. H. Phelps	381,947	May 1	68	17	43	528
Dispatch-tube. Electric	W. Dulles, Jr.	394,161	Dec. 11	621	166	45	1199
Display-frame	S. Dancyger	379,055	Mar. 6	284	83	42	1019
Display-frame	W. W. Ives	394,927	Dec. 18	1867	4-3	45	1450
Display-frame	J. J. Reichenbach	384,331	June 12	745	195	43	1270
Display-frame	L. Strauss	378,407	Feb. 21	1598	419	42	823
Display-frame. Merchant's	G. E. Fuller	385,411	July 3	111	31	41	24
Display-rack	J. S. Davis	394,252	Dec. 11	765	262	45	1226
Display-rack	J. A. Fitzgerald	383,117	May 22	1-64	487	43	898
Display-rack	J. M. Landick	376,318	Jan. 10	538	221	42	170
Display-stand	J. J. Anderson	378,035	Feb. 14	1039	271	42	710
Display-stand	F. M. Wilson	393,873	Dec. 4	211	57	45	1111
Display-stand. Traveling	N. B. Haynes	385,755	July 10	642	166	41	133
Displaying-rack	A. P. Hunter	376,656	Jan. 17	1238	351	42	270
Distance-instrument	J. B. Fayette	387,633	Aug. 14	666	173	41	707
Distillation. Alcoholic	W. L. Horne	385,625	July 3	443	13	41	86
Distillation of liquids and gases. Rectifying-column for the	W. E. Colwell	385,504	July 3	258	65, 66	44	52
Distillation. Vacuum	W. L. Horne	386,747	July 24	2074	540	44	428
Distilling alcohol. Apparatus for	L. Béchaux, Fils	389,539	Sept. 18	1113	294	41	1298
Distilling apparatus	W. L. Horne	388,278	Aug. 21	1678	449	44	911
Distilling apparatus. Water-	P. B. Charbonneau	383,704	May 29	2720	718	43	1072
Distilling fatty acids. Apparatus for	P. Stickney	384,725	June 19	1325	345	43	1389
Distilling petroleum	W. H. Pitt	379,492	Mar. 13	916	246	42	1146
Distilling pine-wood for the production of crude dry turpentine and pine-tar	E. Koch	386,138	July 17	1186	44	248	
Distilling turpentine	J. B. Underwood	393,942	Dec. 4	302	45	1130	
Distilling water and other liquids. Apparatus for	R. D. Gladney	378,881	Mar. 6	36	10	42	973
Distilling water. Apparatus for	A. J. Chase	392,498	Nov. 6	472	119	45	684
Distilling wood. Apparatus for	J. Wilson	379,908	Jan. 3	240	65	42	51
Distributing-case	W. C. Crozier	375,735	Jan. 3	19	5	42	7
Ditcher and grader	J. M. Holland	383,574	May 29	2538	670	43	1031
Ditching and grading machine	D. D. Kubaan	379,765	Mar. 20	1239	330	42	1217
Ditching, dredging, or excavating machine	E. O. Rood	386,438	July 17	1627	427	44	335
Ditching-machine	U. Blickensderfer	384,419	June 12	867	226	43	1294
Ditching-machine	C. C. Edwards	394,682	Dec. 18	1444	376	45	1368
Ditching-machine	I. N. Knight	388,566	Aug. 28	2098	563	44	996
Ditching-machine	H. G. Lane	381,704	Apr. 24	2103	550	43	445
Ditching-machine	J. C. McLachlan	380,128	Mar. 27	1895	505	42	1352
Ditching-machine. Tile	W. Skinner	376,352	Jan. 10	885	232	42	179
Divider. Multiple	J. Krummreich	381,560	Apr. 24	1899	500	43	404
Dividers. Spring	J. F. Guthrie, Jr.	381,971	June 26	1685	437	43	1467
Doek	J. M. Cornell	379,861	Mar. 20	1503	395	42	1267
Doll and phonograph. Combined	W. W. Jacques	383,299	May 22	2123	560	43	948
Domino	S. S. Kimball	377,832	Feb. 14	756	192	42	653
Door	L. S. Enos	378,359	Feb. 21	1526	369	42	809
Door	J. N. Lilygren	386,018	July 10	1004	267	44	205
Door	S. V. Merriman	385,566	July 3	355	92	44	71
Door	W. A. Schussmann	387,698	Aug. 14	763	194	44	725
Door	L. T. Shepherd	376,048	Jan. 3	449	119	42	90
Door. Adjustable screen	W. Hughes	394,651	Dec. 18	1389	363	45	1357
Door. Air-tight	D. O. Settlemente	3-6,221	July 17	1320	349	44	272
Door and window screen and means for securing wire-gauze in screen-frames	E. Hipolito	388,870	Sept. 4	100	26	44	1091
Door-button	F. J. Herrick	382,086	May 1	318	85	43	572
Door catch	C. H. Roselius	380,110	Sept. 4	468	120	41	1160
Door-check	J. A. Bachman	385,400	July 3	95	26	44	20
Door-check	B. F. Boughn	388,621	Aug. 28	2178	585	44	1012
Door-check	J. M. Brohard	391,682	Oct. 23	2089	566	45	430
Door-check	C. Cleveland	376,813	Jan. 24	1592	417	42	327
Door-check	W. D. Dunlap	385,599	July 3	401	102	44	79
Door-check	S. H. Giesy	377,752	Feb. 14	778	199	42	658
Door-check	F. J. Herrick	383,869	May 29	2003	766	43	1101
Door-check	A. Johnson	383,633	May 29	2636	697	43	1053
Door-check	S. H. Miles	390,887	Oct. 9	957	252	45	194
Door-check	B. A. Mitchell, Jr.	394,769	Dec. 18	1481	386	45	1375
Door-check	C. Polley	379,327	Mar. 13	675	182	42	1099
Door-check	A. J. Purviance and C. Hills	392,688	Nov. 13	751	191	45	744
Door-check	D. A. Reardon and C. A. Gardner	38-0,074	Aug. 21	1338	361	44	846
Door-check	R. A. Reisse	384,715	June 19	1313	343	43	1367
Door-check	W. D. Scarborough	387,738	Aug. 14	820	212	44	736
Door-check	E. H. Shaw and J. D. Wixon	389,605	Sept. 18	1229	321	44	1319
Door-check	J. H. Shaw and W. Gillilan	378,728	Feb. 28	2059	543	42	921
Door-check	A. Solms	389,610	Sept. 18	1235	323	44	1320
Door-check	W. H. Stevens	376,117	Jan. 10	551	146	42	117



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Door-check	C. Thomas	382,283	May 4	600	152	43	623
Door-check	F. W. Tobey	377,328	Aug. 7	193	50	41	608
Door-check	E. Tyden	370,367	Apr. 3	91	29	43	21
Door-check	E. Wicks	390,274	Oct. 2	101	30	45	21
Door-check and spring	S. and W. Pickering and J. E. Norton	385,958	July 10	923	211	44	189
Door-check. Pneumatic	T. Goodenough	393,429	Nov. 27	1826	481	45	973
Door-check. Pneumatic	T. Goodenough	393,430	Nov. 27	1828	481	45	973
Door-check. Pneumatic	W. Muser	392,927	Nov. 13	1097	281 285	45	814
Door-checks. Relief-valve for	H. A. and H. A. House, Jr.	384,907	June 19	1591	411	43	1439
Door-closer	G. W. Rodcap	378,897	Feb. 28	2181	581	42	941
Door-fastener	R. C. Elliott	384,567	June 12	1088	285	43	1336
Door-fastener. Sliding	H. A. Gehret	385,550	July 3	325	81	44	65
Door-hanger	G. F. Grandis	385,708	July 10	564	147	41	117
Door-hanger	J. C. and E. A. Haldeman	391,853	Dec. 18	1739	451	45	1427
Door-hanger	R. J. Hosner	376,845	July 31	2311	608	44	480
Door-hanger	W. Kopisch	391,053	Oct. 16	1234	328	45	254
Door-hanger	E. Y. Moore	394,873	Dec. 18	1766	458	45	1432
Door-hanger	A. A. Parker and W. Bennett	379,205	Mar. 13	502	141 142	42	1067
Door-hanger	W. L. Powell	382,770	May 15	1337	352	43	785
Door-hanger	G. W. Warner	394,317	Dec. 11	871	239	45	1247
Door-hanger, rail and rail-bracket. Combined	W. Cronk	384,236	June 12	594	161	43	1245
Door-hanger support	H. T. Moody	391,635	Oct. 23	2030	519	45	418
Door-hangers. Rail support for	T. H. Day	391,443	Dec. 18	1379	360	45	1355
Door-hangers. Rail support for	M. C. Richards	394,611	Dec. 18	1327	318	45	1316
Door-lock	W. W. Fozz	390,504	Oct. 9	702	187	45	148
Door lock and attachment	W. D. Hughes	393,648	Nov. 27	2168	547	45	1043
Door-mat	S. L. Cohen	378,356	Feb. 21	1521	398	42	869
Door-mat	A. M. Cooley	385,041	June 26	1815	466	43	1193
Door-mat	H. Fischer and L. Ewald	377,678	Aug. 14	735	188	41	749
Door-mat	A. Johnson and P. Larsen	384,132	May 22	1892	491	43	902
Door-mat	H. E. Laughlin	385,561	July 3	347	90	44	70
Door-mat	W. Smith	387,928	Aug. 14	1113	296 297	44	791
Door-mat. Metallic	S. Toller	387,189	July 31	2765	723	41	563
Door-opener. Electric	A. Lüngen	393,711	Nov. 27	2259	532 593	45	1060
Door-opener. Electric	J. Schneider	381,725	Apr. 21	2139	569	43	452
Door-opener. Electro-magnetic	E. A. Wildt	393,282	Nov. 20	1619	425	45	924
Door-opener. Pneumatic	W. R. Ostrander	392,451	Nov. 6	409	102	45	671
Door or other mat	A. Cary	388,826	Sept. 4	27	9	44	1077
Door or window stop	N. Van Allen	389,680	Sept. 18	1349	354	44	1341
Door-panels. Machine for forming and polishing	D. M. Roberts	381,788	June 19	1412	370 371	43	1407
Door-plate	W. A. Stafford	389,260	Sept. 11	706	189	44	1214
Door-plate and indicator	W. N. Gartside	380,652	Apr. 3	514	114	43	104
Door-plate and letter-box door. Combined	R. Stafsvick	388,296	Aug. 28	2146	576	44	1006
Door-securer	S. R. Campbell	377,927	Feb. 14	886	228	42	679
Door-securer	A. J. Chase	385,906	July 10	867	229	44	178
Door-securer	F. T. Cladek	379,002	Mar. 6	209	56	42	1006
Door-securer	G. G. Getty	383,724	May 29	2756	736	43	1078
Door-securer	A. J. Longenecker	390,130	Sept. 25	2023	539	44	1184
Door. Self-closing	M. Tillotson	386,012	July 10	1039	277	44	212
Door. Sliding-jail	D. McDonald	380,443	Apr. 3	499	54	43	41
Door-spring	F. L. Becker	391,731	Oct. 23	2159	593 594	45	444
Door-spring	J. P. Harrison	376,435	Jan. 17	1007	261	42	209
Door structure. Storm	T. Van Kannel	387,571	Aug. 7	573	150	44	682
Door track and hanger. Sliding	H. Soulen	380,999	Mar. 27	2117	566 567	42	1397
Doors. Apparatus for opening	G. H. Matzel	392,620	Nov. 13	660	165	45	727
Doors. Device for hanging	W. A. Schussmann	376,697	Aug. 14	702	194	41	725
Doors. Device for simultaneous movement of double	B. I. H. de Vry and J. Schreiber	376,947	Jan. 24	1777	467	42	362
Doors. Device for simultaneously moving double	B. I. H. de Vry and J. Schreiber	376,946	Jan. 24	1777	467	42	362
Doors. Mechanism for operating sliding	I. C. Pelee	380,690	Apr. 10	585	161	43	127
Double clamp	W. Carroll and C. A. Hill	390,751	Oct. 9	772	205	45	160
Double gage	L. O. Barrett	384,113	June 12	861	221	43	1292
Doubletree	E. A. Thiem	380,230	Mar. 27	2032	542	42	1340
Doubletree-equalizer	J. A. Haes	392,862	Nov. 13	1015	260	45	799
Doubletree. Spring	J. S. Harkins	387,298	Aug. 7	155	41	41	601
Doubling and splitting machine. Chained yarn	S. M. Johnson	378,398	Feb. 21	1576	413 414	42	819
Doubling and twisting machines. Stop-motion mechanism for	H. T. Broadbent	377,881	Feb. 14	820	209	42	665
Doubling-winding machine	A. Ryo	389,172	Sept. 4	567	143 144	44	1176
Dough-cutting machine	A. Day	381,961	June 26	1673	435	43	1464
Dough-mixing machine	S. M. Clark	317,064	Jan. 31	1949	512	42	403
Dovetail slots in wood. Forming	D. B. Wesson	391,422	Dec. 11	1019	268	45	1275
Dovetails in wood. Forming	D. B. Wesson	391,423	Dec. 11	1023	269	45	1276
Dovetailing-machine	N. S. Clement	388,760	Aug. 28	2376	610 641 642	44	1019
Dowel-pins. Machine for making	J. McDonald	393,253	Nov. 20	1568	411	45	915
Dowel-machino	H. D. Williams	380,085	May 15	1809	473	43	877
Draft and dust excluder	T. J. Porter	392,065	Oct. 30	2659	723	45	552
Draft apparatus. Vehicle	C. Dieher	388,847	Sept. 4	57	15	44	1081
Draft apparatus. Vehicle	A. E. Thomas and S. Ritty	381,100	June 5	375	106	43	1193
Draft attachment for harness	J. Bloedel	391,051	Dec. 4	463	125	45	1160
Draft attachment for plows	H. E. Rindbury	379,676	Mar. 20	1194	316	42	1207
Draft attachment for vehicles	J. D. Miller	390,849	Oct. 9	961	254	45	105
Draft attachment for vehicles	J. H. Tiffany	391,183	Apr. 17	1341	358	43	277

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Draft attachment for wagons	J. G. Unseeld	383,784	May 29	2857	752	43	1096
Draft, check, or other money order or instrument	W. T. Doremus	376,949	Jan. 24	1780	468	42	363
Draft-detaching device	A. R. Hunsaker	380,628	Apr. 3	479	135	43	98
Draft device for wagons	R. I. Skiles	391,091	Oct. 16	1383	344	45	264
Draft-equalizer	A. H. Bales	377,978	Feb. 14	963	251	42	696
Draft-equalizer	C. E. Burnett	384,190	June 5	516	141	43	1221
Draft-equalizer	S. Case	390,450	Oct. 2	352	93	45	74
Draft-equalizer	W. Cazier	386,962	July 31	2428	638	44	504
Draft-equalizer	E. E. Davis	377,018	Jan. 31	1861	495	42	370
Draft-equalizer	M. Fell	379,383	Mar. 13	753	204	42	1114
Draft-equalizer	M. Frambach	388,353	Aug. 21	1788	478	44	931
Draft-equalizer	W. H. Fritts	377,024	Jan. 31	1889	497	42	391
Draft-equalizer	A. F. Gillet	389,699	Sept. 18	1377	361	44	1347
Draft-equalizer	A. Lindgren	376,533	Jan. 17	1144	300	42	231
Draft-equalizer	H. McCoy	377,812	Feb. 14	728	184	42	648
Draft-equalizer	W. A. Perkins	376,395	Jan. 10	938	246	42	188
Draft-equalizer	J. Putnam	380,635	Apr. 3	488	137	43	99
Draft-equalizer	D. H. Ricard	382,396	May 8	671	169	43	646
Draft-equalizer	J. S. Shuck	393,272	Nov. 20	1599	419	45	921
Draft-equalizer	E. F. Stevens and J. Packard	376,559	Jan. 17	1177	310	42	240
Draft-equalizer	J. D. Willet	390,736	Oct. 9	749	196	45	156
Draft-equalizer	I. N. Woodle	392,530	Nov. 6	518	130	45	693
Draft-equalizer and spark-arrester	A. J. Crane	380,677	Apr. 10	566	156	42	123
Draft-equalizer. Vehicle	W. A. Fry	379,215	Mar. 13	516	145	42	1069
Draft-erener	J. W. Gamble	380,755	Apr. 10	674	186	43	144
Draft-frame for vehicles. Detachable	L. G. Mowry	381,481	Apr. 17	1781	475	43	363
Draft-hook for vehicles	J. B. Wood	375,859	Jan. 3	173	49	42	39
Draft-regulating device for plows and cultivators	A. Lyon	327,689	Aug. 14	750	192	44	722
Draft-regulator	P. W. Cornwell	390,284	Oct. 2	118	34	45	27
Draft-regulator	M. A. Despeissis	392,014	Oct. 30	2583	703	45	537
Draft-regulator	C. E. Gray	382,699	May 15	1249	326	43	767
Draft-regulator	E. T. Van Hecke	389,913	Sept. 25	1706	452	44	1420
Draft-regulator for smoke-passages	J. M. Gibbs	376,473	Jan. 17	1060	277	42	218
Draft-shackle. Vehicle	J. E. Botsford and T. L. Church	378,539	Feb. 28	1789	472	42	869
Drain-cleaner. Convertible	E. J. Robinson	385,283	June 26	2174	555	43	1566
Drainage lands, &c.	W. Heaton	390,780	Oct. 9	812	216	45	167
Drapery-hook	R. Tilton and M. Cowen	384,004	June 5	241	70	43	1168
Draw-bar pattern. Collapsible	W. E. Wakefield	392,243	Nov. 6	95	24	45	612
Draw-bars. Check-plate for	W. H. Hovey	390,231	Oct. 2	55	15	45	15
Draw-bars. Die for forging	J. H. Simpson	386,724	July 24	2038	536	44	422
Draw-bars. Die for making	J. T. Wilson	381,894	Apr. 24	2401	624	43	502
Draw-bars. Die for the manufacture of	J. H. Simpson	386,726	July 24	2042	538	44	422
Draw-bars. Making	J. T. Wilson	381,895	Apr. 24	2402	624	43	502
Draw-bars. Making	J. T. Wilson	389,182	Sept. 4	583	148	44	1180
Draw-shave	J. Swan	386,903	July 31	2341	615	44	456
Draw-shave	W. B. Swan	386,855	July 31	2270	598	44	473
Drawer. Cabinet	F. Trovillion	395,192	Dec. 25	2283	586	45	1536
Drawer. Cash	P. G. Williams and A. W. Roovers	384,010	June 5	248	72	43	1119
Drawer for furniture, &c.	J. Peterson	377,269	Jan. 31	2238	591	42	458
Drawer. Record	G. W. Newberry	394,500	Dec. 11	1125	292	45	1235
Drawers	L. L. Bertonneau	379,558	Mar. 30	1018	272	42	1174
Drawing and tracing apparatus	W. P. Thompson	388,158	Aug. 21	1501		44	874
Drawing-board	F. A. Hopkins	389,472	Sept. 11	1017	272	44	1213
Drawing-board	D. D. Hnyett	386,072	July 10	1076	289	44	220
Drawing-board. Geometrical	J. M. Pringle	390,397	Oct. 2	253	74	45	60
Drawing implement	W. F. Brackett	379,206	Mar. 13	504	142	42	1067
Drawing-knife	J. R. Bailey	376,277	Jan. 10	780	207	42	160
Drawing-knives. Adjustable chamfer-gage for	H. H. Perkins	388,148	Aug. 21	1459	396	44	872
Drawing on marble	R. Durrin	386,062	July 10	1065		44	2 8
Drawings. Duplicating architectural and similar	J. M. Ewen	390,577	Oct. 2	533	140	45	107
Dredge. Prospecting	J. Hatch	392,190	Oct. 30	2760	749	45	512
Dredger-dipper	M. C. Lawton	381,257	Apr. 17	1450	390	43	217
Dredger-dipper	M. C. Lawton	381,258	Apr. 17	1451	391	43	298
Dredger-dipper	M. C. Lawton	393,439	Nov. 27	1841	485	45	976
Dredging apparatus	A. B. Bowers	388,337	Aug. 21	1770	472	44	927
Dredging apparatus. Hydraulic	A. B. Bowers	388,252	Aug. 21	1635	437	44	961
Dredging-machine	A. B. Bowers	388,253	Aug. 21	1637	437	44	962
Dredging-machine	M. F. Brainard	377,060	Jan. 31	1939	510	42	401
Dredging-machine	M. F. Brainard	386,866	July 31	2288	601	44	476
Dredging-machine	J. G. Falcon	392,858	Nov. 13	1010	259	45	797
Dredging-machine	M. Gallagher	386,309	July 17	1441	381	44	295
Dredging-machine	S. N. Knight and I. P. Lambing	385,759	July 10	645	167	44	134
Dress-form	C. H. Griffin	390,665	Oct. 9	648	173	45	137
Dress-form	A. S. Hall	390,668	Oct. 9	650	174	45	137
Dress-form	W. H. Knapp	383,470	May 29	2326	635	43	1003
Dress-form	W. H. Knapp	384,531	June 12	1034	270	43	1325
Dress-form	W. H. Knapp	387,563	Aug. 7	560	146	44	680
Dress-form	J. W. Littlefield	384,372	June 12	807	210	43	1232
Dress-form	E. M. McPherson	383,535	May 29	2492	657	43	1022
Dress-form	P. Quinn	385,725	July 10	587	152	44	122
Dress-form	A. Tuck and H. A. Smith	393,799	Dec. 4	90	25	45	1090
Dress-form	C. A. Ufford and W. L. Hendrick	377,338	Jan. 31	2344	679	42	477
Dress-protector	L. Heumann	393,979	Dec. 4	361	97	45	1140
Dress-shield former	F. W. Smith, Jr., and S. S. Williams	385,645	July 3	471	122	44	92
Dress-shield former	A. C. Squires	391,432	Oct. 23	1756	470	45	360
Dress-shields. Former for seamless	F. W. Smith, Jr.	392,642	Nov. 13	687	172	45	732

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Drier:							
See Bagasse-drier.	Fruit-drier.						
Boot-drier.	Grain-drier.						
Brick-drier.	Lumber-drier.						
Clothes-drier.	Salt-drier.						
Collar and cuff drier.	Tobacco-drier.						
Drier.....	A. Buel.....	388,178	Aug. 21	1528	407	44	879
Drier.....	H. L. Dye.....	379,942	Mar. 27	1621	431	42	1299
Drier.....	W. McPherson.....	387,243	Aug. 7	65	16	44	584
Drier.....	W. McPherson.....	387,652	Aug. 14	693	178	44	712
Drier.....	G. W. Sharer.....	385,208	June 26	3051	{ 524 525 }	{ 43 43 }	1542
Drill:							
See Bow-drill.	Multiple drill.						
Breast-drill.	Portable drill.						
Coal-drill.	Potato-drill.						
Core-drill.	Ratchet-drill.						
Corn-drill.	Rock drill.						
Dental drill.	Sced-drill.						
Expansion-drill.	Stone or marble drill.						
Friction-drill.	Twist-drill.						
Grain-drill.	Well drill.						
Mining-drill.							
Drill.....	J. C. Godwin.....	325,111	June 26	1909	487	43	1513
Drill.....	T. Goserud.....	394,169	Dec. 11	631	169	45	1201
Drill.....	J. A. Grassman.....	377,249	Jan. 31	2311	523	42	454
Drill and cultivator.....	W. H. Newton and W. H. Bailey.....	392,283	Nov. 6	156	40, 41	45	623
Drill and dredge.....	E. Derbec.....	389,449	Sept. 11	991	265	44	1268
Drill-blade. Self-expanding.....	T. and O. Herberg.....	381,625	June 19	1178	310	43	1360
Drill-brace.....	J. L. Shorrock.....	376,757	Jan. 24	1491	393	42	309
Drill-coupling.....	P. A. Gordon.....	391,313	Oct. 16	1590	432	45	321
Drill-grinding attachment. Twist.....	F. Mossberg.....	388,784	Aug. 28	2413	{ 651 652 }	{ 44 44 }	1056
Drill-grinding attachment. Twist.....	F. Mossberg.....	389,095	Sept. 4	419	{ 110 111 }	{ 44 44 }	1153
Drill-guide. Tubular.....	J. T. Connelly.....	386,739	July 24	2060	543	44	426
Drill-jar-reamer.....	A. Walker.....	389,347	Sept. 11	832	212	44	1239
Drill or reamer holder.....	W. L. Grout and E. L. Bowers.....	376,476	Jan. 17	1064	278	42	219
Drill-socket.....	P. Grabler.....	383,289	May 22	2110	557	43	945
Drill-stock.....	A. Allgoever.....	383,031	May 15	1715	446	43	860
Drills. Apparatus for making.....	J. H. Kane.....	380,577	Apr. 3	410	117	43	84
Drills. Feeding appliance for radial.....	A. C. Stebbins.....	392,169	Oct. 30	2531	767	45	585
Drills. Fertilizer-feed for.....	T. R. Crane.....	377,546	Feb. 7	296	76	42	552
Drills. Machine for cutting twist.....	J. Gasiorowski.....	390,223	Oct. 2	44	12	45	12
Drills. Mechanism for opening.....	W. Thiem.....	389,613	Sept. 18	1239	324	44	1321
Drills. Universal table for.....	J. J. Hardy.....	380,322	Apr. 3	23	6	43	7
Drilling and countersinking apparatus.....	H. A. Brown.....	380,311	Apr. 3	7	2	43	4
Drilling and tapping machine. Stay-bolt-hole.....	T. Reese, Jr.....	386,032	July 10	1023	272	44	209
Drilling, channeling, and gadding machine. Com- bined.....	W. L. Saunders.....	394,212	Dec. 11	697	{ 186 187 }	{ 45 45 }	1213
Drill ing device.....	A. K. Cross.....	388,637	Aug. 28	2200	591	44	1016
Drilling. Feeding device for.....	W. Lodge and H. Droses.....	385,063	June 26	1845	472	43	1499
Drilling-jar.....	C. B. McKinney.....	380,634	Apr. 3	487	137	43	99
Drilling-machine.....	W. E. Canedy.....	380,018	Mar. 27	1739	466	42	1322
Drilling-machine.....	S. Höninger.....	380,486	Apr. 3	263	73	43	54
Drilling-machine.....	T. Townsend.....	389,722	Sept. 18	1413	369	44	1355
Drilling-machine.....	T. H. Ward.....	376,354	Jan. 10	887	{ 232 233 }	{ 42 42 }	179
Drilling-machine.....	W. Wattie.....	378,747	Feb. 28	2082	549	42	925
Drilling-machine.....	A. Whitney.....	376,838	Jan. 24	1634	{ 427 428 }	{ 42 42 }	334
Drilling machine. Center.....	F. H. Richards.....	390,520	Oct. 2	455	118	45	92
Drilling machine. Center.....	A. Whitney.....	390,108	Sept. 25	1989	529	44	1478
Drilling-machines. Drift-pin for.....	W. Evans.....	391,038	Oct. 16	1212	321	45	249
Drilling-machines. Feed device for.....	B. F. Barnes.....	379,194	Mar. 6	470	133	42	1056
Drilling or boring machines. Friction-feed for.....	G. S. Walker.....	393,674	Nov. 27	2211	579	45	1051
Drilling or chipping device.....	W. S. Sherman.....	387,115	July 31	2641	695	44	544
Drilling-rig.....	G. Corbett.....	385,241	June 26	2101	538	43	1532
Drilling-rigs. Bull-wheel for.....	M. Grossmayer.....	391,791	Oct. 30	2249	612	45	471
Drilling-tool.....	A. Benzie.....	385,088	June 26	1878	400	43	1506
Drilling-tool.....	H. S. Gail.....	381,124	Apr. 17	1266	339	43	263
Drilling-tools. Securing the fastenings of.....	J. H. Whaling.....	387,475	Aug. 7	406	106	44	632
Drinking-glass.....	C. E. Buckland.....	392,145	Oct. 30	2799	760	45	580
Drip can.....	H. L. Kinports.....	381,253	Apr. 17	1445	339	43	296
Driving device.....	P. M. Sharples.....	388,456	Aug. 28	1946	521	44	967
Driving mechanism. Frictional.....	J. M. Merrow.....	392,818	Nov. 13	955	245	45	785
Driving mechanism. Variable.....	E. F. Antenrieth.....	395,258	Dec. 23	2390	612	45	1556
Drop-light attachment.....	W. D. Mason.....	384,052	June 5	315	89	43	1181
Dropper:							
See Corn-dropper.	Corn or cotton dropper.						
Dropper.....	H. J. Case.....	384,123	June 5	414	115	43	1200
Drugs. Machine for compressing.....	J. Tinlin and J. J. Piatkowski.....	390,823	Oct. 9	871	{ 230 231 }	{ 45 45 }	178
Drum.....	H. G. Lehnert.....	382,045	May 1	256	66	42	560
Drum.....	E. Zoeller.....	388,806	Aug. 28	2445	679	44	1062
Drum.....	H. J. McKeown.....	385,191	June 26	2026	518	43	1536
Drum-head strainer.....	G. Van Zandt.....	387,023	July 31	2511	660	44	520
Drum-head strainers. Hook for.....	G. Van Zandt.....	382,124	May 1	365	95	43	580
Drum. Heating.....	W. M. Burns.....	385,499	July 3	251	64	44	51
Drum. Heating.....	C. J. and J. P. Evans.....	390,119	Sept. 25	2008	536	44	1481
Drum. Heating.....	I. H. Fry.....	387,715	Aug. 14	793	203	44	730
Drum. Heating.....	E. C. Gran.....	386,978	July 31	2451	644	44	509
Drum. Heating.....	A. F. Keene.....	395,280	Dec. 25	2418	620	45	1562
Drum. Heating.....	W. Markle.....	382,616	May 8	1122	289	43	734

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Drum. Heating.....	J. J. Sullivan.....	387,750	Aug. 14	837	216	44	739
Drum. Heating.....	V. D. Urso.....	383,381	May 22	2329	{ 591 592 }	43	967
Drum. Military.....	B. Fleck.....	388,771	Aug. 28	2398	647	44	1052
Drum or pipe. Heating.....	J. Romang.....	393,313	Nov. 20	1656	437	45	932
Drum or radiator. Heating.....	A. Walcott.....	394,899	Dec. 18	1812	4.9	45	1440
Drum. Snare.....	H. C. Plowe.....	389,594	Sept. 18	1213	317	44	1316
Drum-tug.....	W. F. Foley and C. F. Wilbur.....	390,469	Oct. 2	386	99	45	80
Drum. Winding or driving.....	S. Diescher and J. J. McGill.....	387,775	Aug. 14	868	224	44	745
Drums. Apparatus for mechanically playing on.....	A. Foerster.....	393,551	Nov. 27	2024	5.0	45	1014
Drums. Snare-tightener for.....	J. H. Buckbee, Jr.....	388,527	Aug. 28	2040	549	44	985
Dry closet.....	E. C. Condit.....	388,951	Sept. 4	216	57.58	44	1114
Dry closet.....	D. S. Hayes.....	391,966	Oct. 30	2514	620	45	524
Dry closet.....	L. B. Robb.....	376,550	Jan. 17	1167	307	42	238
Dry closet.....	L. B. Robb.....	384,932	June 19	1625	422	43	1446
Dry closet.....	I. D. Smead.....	387,263	Aug. 7	93	23	44	590
Dry goods, &c. Apparatus for storing, measuring, and exhibiting.....	W. Doerflinger.....	374,747	June 19	1354	{ 353 354 }	43	1395
Dry separator and amalgamator.....	M. L. Allstot.....	392,978	Nov. 20	1187	309	45	839
Drying apparatus.....	E. J. Pond.....	376,546	Jan. 17	1163	{ 305 306 544 }	42	237
Drying apparatus.....	E. Theisen.....	393,594	Nov. 27	2080	{ 545 546 }	45	1026
Drying-house.....	N. S. Willet.....	390,737	Oct. 9	750	197	45	156
Dumb-waiter.....	C. L. Lincoln.....	383,958	June 5	172	50	43	1153
Dumping-platform.....	A. Baker.....	387,334	Aug. 7	201	53	44	610
Dust and shavings collector.....	A. C. and W. F. Boehning.....	375,983	Jan. 3	352	94.95	42	72
Dust arrester and collector.....	R. L. Downton.....	383,801	May 29	2892	763	43	1102
Dust-collecting machine.....	J. B. Allfree.....	385,879	July 10	853	{ 225 226 }	44	175
Dust-collector.....	J. S. Ash.....	385,037	June 26	1830	463	43	1490
Dust-collector.....	J. S. Ash.....	387,617	Aug. 14	646	167	44	703
Dust-collector.....	G. Behrns.....	381,753	Apr. 24	2174	{ 568 569 }	43	458
Dust-collector.....	C. M. Hardenbergh.....	385,263	June 26	2138	545	43	1560
Dust-collector.....	C. R. Knick-rhocker.....	382,614	May 8	1119	288	43	733
Dust-collector.....	O. M. Morse.....	377,719	Feb. 7	551	141	42	598
Dust-collector.....	B. F. Ortmann.....	387,437	Aug. 7	333	91	44	642
Dust-collector.....	H. N. Pomeroy.....	381,639	Apr. 24	2012	528	43	427
Dust-collector.....	H. Seck.....	383,037	July 10	1031	{ 273 274 }	44	211
Dust-collector.....	H. Simon.....	394,408	Dec. 11	1002	263	45	1272
Dust-collector.....	C. N. Smith.....	390,100	Sept. 25	1981	536	44	1476
Dust-collector.....	J. S. Smith.....	370,524	Oct. 2	40	119	45	93
Dust collector and separator.....	W. E. Allington and W. H. Curtis.....	394,240	Dec. 11	748	198	45	1223
Dust-conveyer.....	N. A. Broska.....	385,590	July 3	385	99	44	76
Dust-pan.....	G. A. W. Cage, Jr.....	389,921	Sept. 25	1719	454	44	1423
Dust-pan.....	E. S. Colt.....	380,551	Apr. 3	371	106	43	76
Dust-pan.....	E. C. Cunningham.....	389,366	Sept. 11	862	222	44	1245
Dust-pan.....	R. G. Hehden and W. Thorpe.....	390,781	Oct. 9	814	216	45	167
Dust-separator.....	W. E. Allington and W. H. Curtis.....	389,766	Sept. 18	1497	394	44	1372
Duster. Feather.....	G. M. Richmond.....	385,070	June 26	1857	474	43	1502
Dye-stuff by the action of tetrazo-difolyl salts on beta-naphthylamine monosulpho-acid. Production of blue-red azo.....	E. Hassenkamp.....	381,132	Apr. 17	1275	.....	43	265
Dye-stuff. Manufacture of purple-black azo.....	O. N. Witt.....	381,045	Apr. 10	1130	.....	43	228
Dye-stuff. Purple azo.....	O. N. Witt.....	381,046	Apr. 10	1131	.....	43	228
Dye-stuffs. Manufacture of.....	M. Herzberg.....	384,315	June 12	710	.....	43	1246
Dye-stuffs. Manufacture of.....	M. Herzberg.....	384,316	June 12	711	.....	43	1266
Dye-stuffs. Manufacture of.....	A. Weinberg and H. Siebert.....	375,848	Jan. 3	162	.....	42	36
Dye-stuffs. Production of orange azo.....	P. Friedlaender and B. Priels.....	375,930	Jan. 3	279	.....	42	58
Dye-vat.....	J. P. Delahunty, Sr. (Reissue).....	10,973	Dec. 11	1208	314	45	1309
Dyeing.....	V. G. Bloede.....	394,447	Dec. 11	1054	.....	45	1281
Dyeing.....	T. Holaday.....	386,247	July 17	1358	.....	44	279
Dyeing.....	J. C. Pennington.....	385,426	July 3	138	.....	44	29
Dyeing and bleaching apparatus.....	H. Richmond.....	387,540	Aug. 7	507	{ 133 134 }	44	671
Dyeing aniline-black.....	B. F. Cresson.....	390,842	Oct. 9	902	.....	45	183
Dyeing aniline-black.....	J. Grunhut.....	391,315	Oct. 16	1593	.....	45	321
Dyeing animal textile fabrics with naphthazarine.....	R. Bohm.....	379,150	Mar. 6	414	.....	42	1044
Dyeing apparatus.....	A. Harmel.....	382,977	May 15	1619	{ 423 424 }	43	841
Dyeing apparatus.....	G. Jagenburg.....	383,985	July 31	2460	646	44	510
Dyeing apparatus.....	F. W. Lee and J. G. Bradshaw.....	386,635	July 31	2243	589	44	467
Dyeing apparatus.....	R. Perzina.....	384,389	June 12	827	215	43	1286
Dyeing apparatus.....	U. Weldon.....	380,338	Apr. 10	799	218	43	166
Dyeing apparatus.....	U. Weldon.....	382,918	May 15	1538	463	43	827
Dyeing colors by the simultaneous oxidation of diamines and monamines.....	P. Monnet.....	387,097	July 31	2613	.....	44	539
Dyeing. Hollow perforated tube for.....	H. F. Lippitt.....	394,778	Dec. 18	1608	422	45	1403
Dyeing-machine.....	H. and J. Hussong.....	394,694	Dec. 18	1461	381	45	1371
Dyeing. Mordant for.....	C. T. Bazin.....	392,659	Nov. 13	713	.....	45	737
Dyeing or scouring machine.....	C. L. Klander.....	377,893	Feb. 7	40	12	42	503
Dyeing or scouring machine.....	J. H. Lorimer.....	393,769	Dec. 4	51	14.15	45	1082
Dyeing purposes. Preparing a solution of indigo for.....	F. E. Schmittkert.....	386,933	July 31	286	.....	44	495
Dyeing wool. Apparatus for.....	A. Harmel.....	391,043	Oct. 16	1220	{ 323 324 }	45	251
Dyeing yarn. Apparatus for.....	U. Weldon.....	395,195	Dec. 25	2286	5.7	45	1537
Dynamo.....	H. B. Slater.....	380,502	Apr. 10	598	164	41	129
Dynamo. Alternate-current.....	E. Thomson.....	390,318	Oct. 2	162	45	45	36
Dynamo and motor.....	C. E. L. Brown.....	386,685	July 24	1986	{ 524 525 }	44	413
Dynos. Apparatus for connecting alternate-current.....	P. Lange.....	383,648	May 29	2641	699	43	1054

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr <sup>g</sup> .	Vol.	Page.
Dynamos. Automatic governor for.....	E. B. Coburn.....	392,855	Nov. 13	1007	258	45	797
Dynamos. Bobbin for the field-magnets of.....	A. Schmid.....	383,657	May 29	2653	703	43	1057
Dynamos. Brush for.....	E. W. Rice, Jr.....	394,999	Dec. 25	1980	511	45	1481
Dynamos. Synchronizing device for alternate-current	H. M. Byllesby.....	383,618	May 29	2599	687	43	1045
Dynamometer.....	C. F. Murdock.....	380,294	Mar. 27	2112	565	42	1396
Dynamometrical governor.....	J. A. Hurdle and A. W. Steiger.....	389,928	Sept. 25	1726	457	44	1421
Ear-battery for the deaf.....	M. E. Moore.....	380,215	Mar. 27	2010	538	42	1376
Ear-muff.....	A. L. Britton.....	389,735	Sept. 18	1431	373	44	1358
Ear-muff.....	I. B. Kleinert and R. C. Manville.....	381,559	Apr. 24	1898	500	43	404
Ear-muff.....	J. W. Lippincott.....	379,965	Mar. 27	1655	441	42	1305
Ear-protector.....	H. J. Weldon.....	390,928	Oct. 9	1021	270	45	207
Ear-trumpet.....	J. E. Lee.....	392,040	Oct. 30	2626	714	45	546
Ear-wire.....	B. A. Ballou.....	389,830	Sept. 18	1557	412	44	1384
Earth-closet.....	H. J. Behrens.....	393,008	Nov. 27	2110	552	45	1031
Earth, sand, &c. Apparatus for moving.....	A. McDougall.....	393,996	Dec. 4	381	103	45	1144
Easel.....	W. A. Hunkley.....	376,852	Jan. 24	1653	432	42	337
Easel.....	E. R. Morris.....	384,171	June 5	490	134	43	1216
Easel.....	W. H. Van Wart.....	385,536	July 3	307	78	44	62
Easel.....	F. L. Rowand.....	395,263	Dec. 25	2397	614	45	1558
Easel and hanger. Combined.....	E. B. White.....	395,301	Dec. 25	2446	629	45	1567
Easel. Extension.....	G. H. Hartwell.....	391,698	Oct. 23	1993	538	45	410
Easel, picture-frame, and pocket. Combined.....	T. E. Reeder.....	392,067	Oct. 30	2661	723	45	552
Eaves-gutter hanger.....	M. Koch.....	388,495	Aug. 28	1999	538	44	978
Eaves-trough.....	W. C. Berger.....	376,574	Jan. 17	1197	316	42	244
Eaves-trough brace.....	L. J. Sawyer.....	387,601	Aug. 7	692	161	44	692
Eaves-trough hanger.....	J. P. Abbott.....	377,366	Feb. 7	1	1	42	495
Eaves-trough hanger.....	G. A. Green.....	390,132	Sept. 25	2011	536	41	1482
Eaves-trough hanger.....	H. T. and H. O. Lawrence.....	384,985	June 26	1706	442	43	1471
Eaves-trough hanger.....	H. Russell.....	377,405	Feb. 7	56	15	42	506
Eaves-trough hanger.....	H. B. Todd.....	378,530	Feb. 28	1778	469	42	867
Eaves-trough hanger.....	J. B. Weida and W. Batdorf.....	391,286	Oct. 16	1557	413	45	314
Eccentric.....	S. Walkden.....	389,268	Sept. 11	718	183	44	1216
Eccentric-rod.....	P. Kirkevaag.....	383,735	May 29	2768	729	43	1040
Eccentric-head.....	A. J. Tyler.....	388,799	Aug. 28	2435	657	44	1060
Edge-shave.....	A. Schillmöller.....	393,487	Nov. 27	1928	504	45	992
Edge-trimmer. Straight.....	S. W. Robinson and S. P. Watt.....	389,529	Sept. 11	1096	290	44	1288
Edger.....	W. F. Parish.....	379,659	Mar. 20	1169	310	42	1202
Edger. Gang.....	W. F. Parish.....	379,658	Mar. 20	1168	309	42	1202
Edging and seaming plates. Machine for.....	A. Brandriff.....	393,204	Nov. 20	1496	391	45	900
Educational apparatus.....	J. Dushane.....	385,046	June 26	1816	466	43	1494
Educational apparatus.....	I. F. Hall.....	388,466	Aug. 28	1987	533	44	976
Educational appliance.....	H. O. R. Siefert.....	380,532	Apr. 3	338	97	43	69
Educational device.....	J. Dushane.....	383,389	May 22	2251	599	43	970
Egg-beater.....	E. Baltzley.....	389,631	Sept. 18	1265	332	44	1325
Egg-beater.....	C. A. Bryant.....	386,105	July 17	1141	303	44	237
Egg-beater.....	J. J. Diell.....	387,214	Aug. 7	26	6	44	577
Egg-beater.....	G. D. Dudley.....	386,424	July 17	1611	423	44	332
Egg-beater.....	J. Gérard.....	380,200	Mar. 27	1990	533	42	1371
Egg-beater.....	E. Hadley.....	380,564	Apr. 3	391	112	43	80
Egg-beater.....	D. Peters.....	383,489	May 29	2420	642	43	1008
Egg-beaters. Means for operating.....	M. F. Bishop.....	384,674	June 19	1247	328	43	1375
Egg-boiler.....	E. Granett.....	382,509	Nov. 6	486	122	45	687
Egg-carrier.....	W. Huey and E. W. Baily.....	381,928	May 1	40	11	43	523
Egg-carrier.....	A. L. Ellis.....	385,450	July 3	175	47	44	35
Egg-carrier.....	J. Moran.....	392,628	Nov. 13	672	167	45	729
Egg-case fastener.....	W. M. Castle.....	385,593	July 3	391	101	41	77
Egg-case fastener.....	T. J. Reece.....	392,224	Nov. 6	70	17	45	608
Egg-cases. Adjustable lid for.....	G. W. Turner.....	391,766	Oct. 23	2205	595	45	453
Egg-cases. Making.....	E. L. Walker.....	380,960	Apr. 10	993	263	43	202
Egg-cell.....	J. Wieland.....	390,735	Oct. 9	748	196	45	156
Egg-crate and tray.....	J. L. Ritter.....	382,622	May 8	1132	292	43	736
Egg-cup.....	J. Casey.....	386,804	July 31	2169	572	44	455
Egg-package.....	A. S. Hoyt.....	393,564	Nov. 27	2038	534	45	1017
Egg-preserver.....	J. Ford and A. H. Delbridge.....	378,303	Feb. 21	1448	377	42	793
Egg-preserver.....	A. F. Temple.....	377,585	Feb. 7	346	89, 90	42	562
Egg-rack.....	R. W. Beatty and G. Hoffner.....	381,523	Apr. 24	1852	490	43	396
Egg-safety shipping-package.....	J. Adams.....	379,526	Mar. 13	966	261	42	1156
Egg-tester.....	C. Reuter.....	380,518	Apr. 3	324	93	43	66
Egg-tester.....	R. Stuckwisch.....	378,853	Feb. 28	2263	602	42	959
Egg-testing packet.....	M. L. Windate.....	389,625	Sept. 18	1253	388	44	1324
Eggs, &c. Composition for preserving.....	F. Zeiler.....	379,262	Mar. 13	575	.....	42	1080
Ejector.....	J. M. Marty.....	380,907	Apr. 10	910	244	43	187
Elastic cord.....	J. W. Green and C. H. Caswell.....	377,027	Jan. 31	1893	498	42	392
Electric accumulator.....	J. M. Pendleton.....	380,765	Apr. 10	698	193	43	148
Electric alarm and water-gage.....	J. H. Johns.....	394,491	Dec. 11	1112	289	47	1292
Electric-alarm system.....	W. F. Rossbach.....	393,078	Nov. 20	1319	344	45	865
Electric-arc-light support.....	B. Schardt and G. Jones.....	388,723	Aug. 28	2327	627	41	1040
Electric battery.....	E. M. Hewitt.....	385,308	June 26	2214	568	43	1574
Electric battery.....	W. P. Kookogey.....	385,760	July 10	646	167	41	134
Electric battery.....	I. L. Roberts.....	386,090	July 10	1110	297	44	926
Electric battery.....	E. A. Wildt.....	383,548	May 29	2512	663	44	1025
Electric-battery cell.....	S. L. Trippie.....	389,676	Sept. 18	1344	352	44	1340
Electric battery. Primary.....	H. Woodward.....	379,551	Mar. 13	1002	268	42	1163
Electric battery. Primary.....	H. Woodward.....	379,552	Mar. 13	1003	269	42	1163
Electric-brake system.....	W. P. Wildfield and A. H. Bowman.....	394,627	Dec. 18	1352	353	45	1350
Electric-cable joint.....	J. E. Cuff.....	391,517	Oct. 23	1874	503	45	385
Electric cable. Submarine and subterranean.....	E. Flotron and F. B. A. R. de la Bastie.....	393,823	Dec. 4	136	34	45	1096
Electric cables. Anti-induction composition for.....	D. Brooks, Jr.....	383,096	May 22	1831	.....	43	891

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Electric cables. Manufacturing.....	W. R. Patterson.....	382,768	May 15	1334	351	43	784
Electric call.....	W. H. Cutting.....	376,863	Jan. 24	1663	435	42	340
Electric circuit.....	J. A. Barrett.....	392,775	Nov. 13	891	228	45	773
Electric circuit.....	J. B. Wood.....	394,946	Dec. 18	1889	488 489	45	1455
Electric-circuit breaker.....	W. R. Cole.....	376,071	Jan. 10	486	131	42	104
Electric-circuit closer.....	W. F. Stocker.....	377,538	Feb. 7	287	73	42	550
Electric-circuit-closing device.....	M. W. Groveston and F. G. Jahn.....	384,570	June 12	1092	287	43	1336
Electric-circuit controller.....	O. F. Greim.....	384,440	June 12	894	233	43	1299
Electric-circuit controller.....	W. J. Paine.....	393,389	Nov. 27	1772	469	45	963
Electric-circuit controller.....	A. F. L. Willatowsky.....	390,329	Oct. 2	180	49	45	39
Electric-circuit indicator.....	O. B. Shallenberger.....	383,665	May 29	2663	706	43	1059
Electric-circuit indicator.....	O. B. Shallenberger.....	394,728	Dec. 18	1515	366	45	1384
Electric-circuit regulator.....	R. Belfield.....	386,956	July 31	2419	635	44	502
Electric-circuit switch.....	C. C. Stirling.....	382,332	May 8	679	172	43	648
Electric-circuit switch.....	C. C. Stirling.....	382,333	May 8	681	172	43	648
Electric-circuit switch or cut-out.....	J. J. Wood.....	383,933	June 5	136	39, 40	43	1147
Electric-circuit-testing apparatus.....	A. D. Wheeler.....	383,605	May 29	2574	621 682	43	1040
Electric circuits. Apparatus for detecting ground-connections in.....	O. B. Shallenberger.....	383,666	May 29	2665	706	43	1060
Electric circuits. Cut-out for.....	H. C. McDill.....	391,853	Oct. 30	2351	638	45	491
Electric circuits, &c. Mechanism for changing.....	H. Edmunds.....	393,146	Nov. 20	1412	369	45	882
Electric circuits. Reversing-switch and rheostat for.....	C. G. Bickley.....	389,356	Sept. 11	843	215 216	44	1242
Electric comb.....	C. Busch.....	384,561	June 12	1081	282	43	1334
Electric conductor.....	E. G. Acheson.....	380,157	Mar. 27	1931	515	42	1360
Electric conductor.....	H. F. Campbell.....	392,103	Oct. 30	2734	743	45	567
Electric conductor.....	L. Daft.....	385,915	July 10	874	231	44	179
Electric conductors and power-cables. Conduit for.....	I. L. Johnson.....	375,876	Jan. 3	198	54, 55	42	42
Electric conductors and uniting the same.....	C. McIntire.....	389,314	Sept. 11	789	201	44	1230
Electric conductors. Apparatus for removing scale from.....	L. Daft.....	394,062	Dec. 4	480	128	45	1163
Electric conductors. Arched suspender for overhead.....	C. J. Van Depoele.....	393,317	Nov. 20	1661	439	45	933
Electric conductors. Conduit for.....	J. Kames.....	393,013	Nov. 20	1236	321	45	848
Electric conductors. Device for protecting.....	E. G. Acheson.....	390,196	Oct. 2	1	1	45	3
Electric conductors. Manufacture of.....	E. G. Acheson and B. F. Anderson.....	380,158	Mar. 27	1932	515	42	1360
Electric conductors. Pole indicator for.....	A. Berghausen.....	376,281	Jan. 10	785	208	42	160
Electric conductors. Support for.....	M. J. Hart.....	377,894	Feb. 14	838	214 215	42	669
Electric conductors. System of suspending.....	C. J. Van Depoele.....	391,039	Dec. 4	443	119	45	1155
Electric conductors. Underground conduit for.....	C. J. Van Depoele.....	393,276	Nov. 20	1605	420	45	922
Electric conduit.....	R. Van Buren and J. J. Powers.....	376,562	Jan. 17	1182	311	42	241
Electric conduit. Underground.....	E. H. Phipps.....	388,442	Aug. 28	1926	514	44	963
Electric contact-changer.....	P. C. Morse.....	381,269	Apr. 17	1466	394	43	301
Electric converter.....	O. B. Shallenberger and H. M. Bylesby.....	387,013	July 31	2501	657	44	518
Electric-current generators. Coupling of alternates.....	O. B. Shallenberger.....	383,662	May 29	2661	705	43	1059
Electric-current indicator.....	P. B. Delany.....	390,115	Sept. 25	2004	534	44	1480
Electric-current indicator.....	E. P. Warner.....	378,029	Feb. 14	1032	270	42	709
Electric-current regulator.....	E. R. Knowles.....	381,254	Apr. 17	1446	389	43	296
Electric-current regulator.....	J. A. Vansant and F. S. Anderson.....	387,464	Aug. 7	392	102	44	650
Electric currents. Automatic commutator for alternating.....	A. H. Eddy.....	391,933	Oct. 23	1975	532 533	45	406
Electric currents. Automatic regulation for.....	R. Belfield.....	386,797	July 31	2160	508	44	454
Electric currents. Converting and distributing.....	N. Tesla.....	382,252	May 1	597	151	43	622
Electric currents. Electrical indicator for alternating.....	O. B. Shallenberger.....	383,668	May 29	2667	707	43	1060
Electric currents. Indicating.....	O. B. Shallenberger.....	383,667	May 29	2666	707	43	1060
Electric currents. Indicating.....	O. B. Shallenberger.....	383,672	May 29	2675	708	43	1062
Electric currents. Measuring alternating.....	O. B. Shallenberger.....	388,004	Aug. 14	1126	333 334	44	817
Electric currents. Meter for alternating.....	O. B. Shallenberger.....	388,003	Aug. 14	1224	332 333	44	816
Electric currents. Production, transmission, and distribution of.....	C. E. Fritts.....	383,520	May 29	2460	651 652	43	1016
Electric currents. Registering-meter for.....	J. D. Bishop.....	389,870	Sept. 25	1638	434	44	1405
Electric cut-out.....	C. G. Perkins.....	385,007	June 26	1851	473	43	1500
Electric cut-out.....	C. G. Perkins and J. Tregoning.....	380,766	Apr. 10	699	193	43	148
Electric cut-out.....	J. A. Powers.....	387,732	Aug. 14	814	210	44	734
Electric depositing-cell.....	L. L. Smith.....	393,526	Nov. 27	1966	519	45	1006
Electric discharge device.....	R. Belfield.....	392,400	Nov. 6	336	83	45	658
Electric distribution by alternating currents.....	C. Zepernowsky, M. Déri, and O. T. Bláthy.....	392,090	Oct. 30	2713	737	45	563
Electric distribution by secondary batteries.....	Z. Latschaw.....	394,541	Dec. 11	1196	311	45	1307
Electric distribution. System of.....	T. Spencer.....	378,737	Feb. 28	2069	545 546	42	922
Electric distribution. System of.....	T. Spencer.....	378,738	Feb. 28	2071	546	42	923
Electric elevator.....	G. C. Blickensderfer and J. K. Hallock.....	381,492	Apr. 17	1796	478	43	366
Electric energy. Conveying.....	S. Z. De Ferranti.....	394,837	Dec. 18	1712	444	45	1422
Electric energy. Conveying.....	S. Z. De Ferranti.....	394,838	Dec. 18	1713	444	45	1422
Electric energy. Means for distributing.....	S. Z. De Ferranti.....	389,795	Sept. 18	1511	399	44	1375
Electric energy. Means for distributing.....	S. Z. De Ferranti.....	389,838	Sept. 18	1566	415	44	1386
Electric energy. System for the distribution of.....	G. and A. Pfannkucho.....	389,974	Sept. 25	1784	474	44	1436
Electric energy. Transformation and distribution of.....	R. Kennedy.....	378,321	Feb. 21	1470	384	42	797
Electric energy. Transformation and distribution of.....	R. Kennedy.....	381,794	Apr. 24	2229	583 584	43	469
Electric energy. Transformation and distribution of.....	W. J. McElroy.....	392,213	Nov. 6	50	14	45	604
Electric generator. Dynamo.....	G. and A. Pfannkucho.....	391,270	Oct. 16	1535	407	45	310
Electric generator. Dynamo.....	E. E. Ries.....	381,421	Apr. 17	1685	452 453	43	345
Electric generator. Multiple-current.....	E. E. Ries.....	390,906	Oct. 9	989	259	45	200



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. ge.	Vol.	Page.
Electric-generator regulator.....	W. S. Hill.....	378,547	Feb. 28	1801	476	42	873
Electric generator. Self-exciting alternate-current..	O. A. Moses.....	378,456	Feb. 28	1677	440	42	845
Electric generator. Synchronizing.....	G. Westinghouse, Jr.....	390,930	Oct. 9	1026	271	45	218
Electric generators. Brush-holder for.....	A. Schmid.....	383,658	May 29	2654	703	43	1057
Electric generators. Commutator-brush for.....	O. P. Loomis.....	381,394	Apr. 17	1646	437	43	337
Electric generators. Commutator for.....	O. Zech.....	389,184	Sept. 4	585	143	44	1181
Electric generators. Regulating alternate-current.....	K. Ziernowsky and M. Déri.....	375,910	Jan. 3	242	66	42	51
Electric heater.....	C. Seiler.....	379,822	Mar. 20	1427	378	42	1253
Electric indicator.....	W. A. Anthony.....	387,131	July 31	2682	703	44	549
Electric indicator.....	O. B. Shallenberger.....	380,942	Apr. 10	963	256	43	196
Electric indicator.....	J. Tregoning.....	382,914	May 15	1532	401	43	826
Electric indicator.....	E. Weston.....	381,736	Apr. 24	2151	563	43	454
Electric light and globe protector.....	W. M. Tompkins.....	380,391	Mar. 27	2121	567	42	1398
Electric-light and motor circuits. Switch for.....	F. W. Braunn and G. I. Kinney.....	379,501	Mar. 13	933	251	42	1149
Electric-light carbon.....	T. L. Clingman.....	381,614	Apr. 24	1981	.....	43	421
Electric-light carbons. Furnace for baking.....	J. Burus.....	388,757	Aug. 28	2374	639	41	1049
Electric-light circuit cut-off switch.....	W. A. Johnson.....	390,481	Oct. 2	399	102	45	82
Electric-light circuits. Ground-detector for.....	A. W. Morrell.....	399,758	Sept. 18	1458	382	44	1364
Electric-light pole.....	E. Thomson.....	393,040	Nov. 20	1275	330	45	856
Electric-light regulator.....	L. Paget.....	393,574	Nov. 27	2051	537	45	1020
Electric light system.....	B. E. Sunny.....	385,090	June 26	1769	457	43	1485
Electric light. Toll apparatus for producing.....	D. H. Davies and J. M. Tourtel.....	395,215	Dec. 25	2333	597	45	1515
Electric lights. Manufacture of incandescent.....	T. Mace.....	378,258	Feb. 21	1381	.....	42	780
Electric lights. Mast-arm for.....	C. W. Russell.....	392,288	Nov. 6	75	18	45	608
Electric lights. Support for incandescent.....	A. Dawes.....	394,680	Dec. 18	1442	376	45	1567
Electric lights. Supporting-arm for.....	D. B. Banks and G. K. Hutchins.....	375,977	Jan. 3	344	92	42	70
Electric lights. System of combined arc and incandescent.....	H. P. Brown.....	387,615	Aug. 7	640	166	44	695
Electric-lighting circuits. Circuit-controlling apparatus for.....	O. B. Shallenberger.....	383,661	May 29	2660	705	43	1058
Electric-lighting system.....	W. W. Griscom.....	389,297	Sept. 11	772	195	44	1226
Electric lighting. System of.....	T. A. Edison.....	391,585	Oct. 23	1977	533	45	407
Electric lighting. System of.....	W. W. Griscom.....	393,756	Dec. 4	34	11	45	1078
Electric lock.....	F. J. Gridley.....	386,066	July 10	1069	286	44	219
Electric lock.....	C. A. Tucker.....	376,121	Jan. 10	560	148	42	118
Electric locomotion. System of.....	H. A. Seymour.....	384,594	June 12	1125	297	43	1341
Electric machine. Alternating-current dynamo.....	C. Heisler.....	380,115	Mar. 27	1876	499	42	1349
Electric machine. Alternating-current dynamo.....	E. Thomson.....	382,335	May 8	684	173	43	649
Electric machine and electric motor. Dynamo.....	R. E. B. Crompton.....	387,343	Aug. 7	214	57	44	613
Electric machine and electric motor. Dynamo.....	W. P. Freeman.....	393,636	Nov. 27	2151	562	45	1039
Electric machine and motor. Dynamo.....	M. Immisch.....	381,789	Apr. 24	2221	581	43	468
Electric machine. Direct-welding dynamo.....	E. Thomson.....	389,779	Sept. 18	1483	391	44	1369
Electric machine. Dynamo.....	C. S. Bradley.....	390,439	Oct. 2	337	89	45	71
Electric machine. Dynamo.....	W. A. Crowds and H. M. Sutton.....	380,620	Apr. 3	471	133	43	96
Electric machine. Dynamo.....	M. Deprez.....	379,689	Mar. 20	1217	322	42	1211
Electric machine. Dynamo.....	J. W. Easton.....	383,113	May 22	1858	485	43	897
Electric machine. Dynamo.....	R. Eickemeyer.....	377,996	Feb. 14	983	256	42	700
Electric machine. Dynamo.....	J. Emmuer, Jr.....	390,955	Oct. 9	1056	279	45	214
Electric machine. Dynamo.....	W. Fritzsche.....	386,775	July 24	2114	554	44	436
Electric machine. Dynamo.....	W. W. Griscom.....	393,469	Nov. 27	1902	498	45	986
Electric machine. Dynamo.....	A. Harding.....	385,458	July 3	188	49	44	37
Electric machine. Dynamo.....	T. H. Hicks.....	389,812	Sept. 18	1532	405	44	1379
Electric machine. Dynamo.....	F. Jehl.....	376,307	Jan. 10	815	216	42	166
Electric machine. Dynamo.....	F. P. Loomis.....	395,157	Dec. 25	2227	572	45	1527
Electric machine. Dynamo.....	R. H. Mather.....	381,398	Apr. 17	1652	411	43	339
Electric machine. Dynamo.....	W. Mather, E. and J. Hopkinson.....	390,180	Sept. 25	2097	549	44	1499
Electric machine. Dynamo.....	R. Oliver.....	384,638	June 19	1194	315	43	1364
Electric machine. Dynamo.....	M. W. Parrish and W. R. Cole.....	391,070	Oct. 16	1257	334	45	258
Electric machine. Dynamo.....	L. N. P. Polaud.....	383,320	May 22	2150	567	43	953
Electric machine. Dynamo.....	L. C. Rice.....	379,284	Mar. 13	613	167	42	1088
Electric machine. Dynamo.....	G. W. Riethmann.....	394,883	Dec. 18	1782	463	45	1435
Electric machine. Dynamo.....	A. L. Riker.....	389,011	Sept. 4	291	78	44	1129
Electric machine. Dynamo.....	N. Tesla.....	390,414	Oct. 2	304	80	45	64
Electric machine. Dynamo.....	N. Tesla.....	390,721	Oct. 9	723	191	45	152
Electric machine. Dynamo.....	E. Thomson.....	392,765	Nov. 13	868	222	45	769
Electric machine. Dynamo.....	O. Urban and M. J. Wightman.....	379,037	Mar. 6	258	73	42	1014
Electric machine. Dynamo.....	M. Waddell.....	388,093	Aug. 21	1367	369	44	851
Electric machine. Dynamo.....	J. Wenström.....	381,451	Apr. 17	1738	464	43	355
Electric machine. Hand magneto.....	J. B. Blair.....	391,224	Oct. 16	1467	391	45	298
Electric machine. Magneto.....	W. Humans.....	383,071	July 10	1075	289	44	220
Electric machine. Magneto.....	W. Humans.....	388,877	Sept. 4	103	29	41	1093
Electric machine. Magneto.....	O. P. Loomis.....	378,892	Mar. 6	50	14	42	976
Electric machine or motor. Dynamo.....	A. L. Riker.....	381,057	June 5	348	98	43	1187
Electric machine or motor. Dynamo.....	N. Tesla.....	390,415	Oct. 2	336	80	45	65
Electric machine or motor. Dynamo.....	E. Thomson.....	376,120	Jan. 10	551	147	42	117
Electric-machine regulator. Dynamo.....	T. A. Edison.....	379,771	Mar. 20	1333	356	42	1235
Electric-machine regulator. Dynamo.....	S. D. Field.....	391,954	Oct. 30	2495	676	45	520
Electric-machine regulator. Dynamo.....	C. Heisler.....	379,956	Mar. 27	1639	437	42	1303
Electric-machine regulator. Dynamo.....	A. G. Waterhouse.....	389,029	Sept. 4	325	86	44	1134
Electric machine. Signaling dynamo.....	E. Gray.....	394,172	Dec. 11	636	170	45	1202

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Electric machine. Steam dynamo.....	R. H. Mather.....	381,568	Apr. 24	1911	{ 503 504	{ 43	406
Electric machines. Apparatus for synchronizing alternate-current dynamo.....	O. B. Shallenberger.....	390,912	Oct. 9	998	261	45	202
Electric machines. Armature for dynamo.....	H. Lemp.....	376,336	Jan. 10	850	223	42	171
Electric machines. Armature for dynamo.....	R. Mackie.....	382,174	May 1	434	113	43	503
Electric machines. Armature for dynamo.....	R. H. Mather.....	377,683	Feb. 7	504	129	42	500
Electric machines. Armature for dynamo.....	A. W. Meston.....	387,432	Aug. 7	3-8	87, 88	44	638
Electric machines. Armature for dynamo.....	E. J. O'Beine.....	377,046	Jan. 31	1912	503	42	395
Electric machines. Automatic tightening device for armatures of dynamo.....	J. W. Easton.....	383,114	May 22	1859	486	43	898
Electric machines. Brush-holder for.....	A. Schmid.....	387,010	July 31	2497	{ 655 656	{ 44	517
Electric machines. Cirenit-controller for dynamo.....	T. A. Edison.....	395,123	Dec. 25	2169	559	45	1517
Electric machines. Commutator for dynamo.....	T. A. Edison.....	379,941	Mar. 27	1624	432	42	1300
Electric machines. Commutator for dynamo.....	F. B. Mitchell.....	385,943	July 10	912	243	44	187
Electric machines. Commutator for dynamo.....	N. Tesla.....	382,845	May 15	1436	378	43	806
Electric machines. Commutator for dynamo.....	J. T. Van Gestel.....	388,513	Aug. 28	2021	{ 543 544	{ 44	982
Electric machines. Commutator for dynamo.....	J. J. Wood.....	384,816	June 19	1459	381	43	1415
Electric machines. Commutator or bar for dynamo.....	C. E. Billings.....	392,490	Nov. 6	462	116	45	6-2
Electric machines. Conductor for dynamo.....	E. F. H. H. Lauckert.....	389,752	Sept. 18	1451	380	44	1362
Electric machines. Core for dynamo.....	W. C. Rechinewski.....	378,375	Feb. 21	1547	405	42	813
Electric machines. Current-collector for.....	W. Stanley, Jr.....	383,832	May 29	2936	776	43	1111
Electric machines. Current-regulator for dynamo.....	W. A. Crowds and H. M. Sutton.....	377,884	Feb. 14	824	210	42	666
Electric machines for electric distribution. Coupling dynamo.....	O. B. Shallenberger.....	390,910	Oct. 9	995	261	45	200
Electric machines. Regulation of dynamo.....	A. G. Waterhouse.....	389,030	Sept. 4	328	86	44	1134
Electric machines. Regulator for dynamo.....	C. L. Buckingham and H. Lemp.....	387,853	Aug. 14	979	{ 255 256	{ 44	768
Electric machinery. Dynamo.....	C. S. Brad'ey.....	394,818	Dec. 18	1668	426	45	1414
Electric machinery. Dynamo.....	C. S. Bradley.....	394,819	Dec. 18	1670	437	45	1414
Electric machinery. Dynamo.....	W. F. Collins.....	393,742	Dec. 4	9	3	45	1074
Electric machinery. Dynamo.....	G. Miot.....	386,340	July 17	1478	392	44	3-2
Electric machinery. Dynamo.....	S. E. Nutting.....	393,849	Dec. 4	169	46	45	1104
Electric machinery. Dynamo.....	A. Reckenzaun.....	385,068	June 26	1852	474	43	1500
Electric machinery. Dynamo.....	F. J. Sprague.....	380,144	Mar. 27	1915	511	42	1357
Electric machinery. Dynamo.....	F. Von Hefner-Altenneck and C. Hofmann.....	395,019	Dec. 25	2007	517	45	1486
Electric meter.....	H. Bentz.....	391,010	Oct. 16	1159	307	45	239
Electric meter.....	P. Lange.....	392,437	Nov. 6	384	95	45	666
Electric meter.....	P. Lange.....	392,439	Nov. 6	3-8	95	45	667
Electric meter.....	H. G. Morris.....	388,707	Aug. 28	2306	620	44	1035
Electric meter.....	S. D. Mott.....	381,480	Apr. 17	1779	474	43	363
Electric meter.....	K. Raab.....	388,583	Aug. 28	2123	569	44	1001
Electric meter.....	A. Reckenzaun.....	394,881	Dec. 18	1778	{ 461 462	{ 45	1434
Electric meter.....	A. Reckenzaun and J. A. Pentz.....	394,880	Dec. 18	1776	461	45	1434
Electric meter.....	W. F. Stocker.....	393,315	Nov. 20	1658	438	45	932
Electric meter.....	E. Thomson.....	381,441	Apr. 17	1718	460	43	352
Electric meter.....	E. Thomson.....	381,443	Apr. 17	1726	462	43	353
Electric meter.....	E. Thomson.....	385,647	July 3	473	123	44	92
Electric meter.....	E. Thomson.....	395,018	Dec. 25	2003	517	45	1485
Electric meter.....	F. C. Wagner.....	393,132	Nov. 20	1392	364	45	879
Electric meter.....	G. Westinghouse, Jr.....	383,678	May 29	2681	709	43	1063
Electric meter.....	G. Westinghouse, Jr., and P. Lange.....	383,680	May 29	2683	710	43	1063
Electric meter and electric-clock system. Combined.....	P. Lange.....	395,438	Nov. 6	386	95	45	667
Electric meters. System of.....	A. Warts.....	392,577	Nov. 6	584	147	45	707
Electric motor.....	J. Batley.....	388,753	Aug. 28	2337	638	44	1047
Electric motor.....	E. M. Bentley.....	377,230	Jan. 31	2179	515	42	449
Electric motor.....	G. F. Card.....	3-2,589	May 8	1086	{ 279 280	{ 43	737
Electric motor.....	H. A. Chase.....	389,197	Sept. 11	606	155	44	1194
Electric motor.....	P. Diehl.....	381,222	Apr. 17	1391	{ 371 372	{ 43	287
Electric motor.....	P. Diehl.....	389,876	Sept. 25	1647	436	44	1408
Electric motor.....	J. Doyle.....	391,590	Oct. 23	1971	532	45	406
Electric motor.....	A. E. Eastwick.....	3-9,207	Sept. 11	619	158	44	1197
Electric motor.....	B. A. Fiske.....	387,714	Aug. 14	791	203	44	730
Electric motor.....	W. E. Hyer.....	391,797	Oct. 30	2270	615	45	476
Electric motor.....	F. J. Keller and J. W. Carnes.....	393,373	Nov. 27	1749	463	45	958
Electric motor.....	C. T. Mason, Sr.....	377,319	Jan. 31	2313	671	42	472
Electric motor.....	D. F. Sweet.....	395,299	Dec. 25	2443	628	45	1567
Electric motor.....	C. J. Van Depoele.....	3-4,035	Dec. 4	432	117	45	1154
Electric motor.....	J. T. Van Gestel.....	3-8,512	Aug. 28	20-0	543	44	982
Electric motor. Alternate-current.....	W. A. Anthony, D. C. Jackson, and H. J. Ryan.....	389,352	Sept. 11	838	214	44	1240
Electric motor. Alternate-current.....	W. Stanley, Jr.....	392,471	Nov. 6	438	110	45	677
Electric motor and dynamo.....	A. L. Riker.....	393,266	Nov. 20	1587	{ 416 417	{ 45	918
Electric motor and dynamo-electric machine.....	O. Lugo.....	394,075	Dec. 4	495	{ 132 133	{ 45	1166
Electric motor and dynamo-machine.....	O. Lugo.....	385,675	July 3	509	{ 131 132	{ 44	99
Electric-motor regulation.....	D. Higham.....	377,255	Jan. 31	2217	5-6	42	455
Electric-motor regulator.....	A. G. Waterhouse.....	387,194	July 31	2770	724	44	564
Electric-motor switch.....	G. H. Condict.....	393,323	Nov. 20	1673	442	45	935
Electric-motor switch.....	R. H. Mather.....	382,714	May 15	1264	331	43	770
Electric-motor switch.....	G. D. Shepardson.....	389,254	Sept. 11	700	178	44	1213
Electric motors. Governor for.....	W. Baxter, Jr.....	384,117	June 5	404	{ 112 113	{ 43	1198
Electric motors. Governor for.....	R. H. Mather.....	383,651	May 29	2645	700	43	1055
Electric motors. Means for regulating and controlling.....	B. A. Fiske.....	381,238	Apr. 17	1401	375	43	288

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. it.	Vol.	Page.
Electric motors or generators. Safety device and signal for	C. J. Van Depoele	394,525	Dec. 11	1168	304	45	1302
Electric motors. Regulation of	S. D. Field	381,768	Apr. 24	2192	573	43	462
Electric motors. Regulation of	L. S. Harris	391,319	Oct. 16	1597	423	45	322
Electric motors. Regulation of	D. Higham	379,466	Mar. 13	876	236	42	1139
Electric motors. Regulation of	D. Higham	379,467	Mar. 13	878	237	42	1139
Electric motors. Regulation of	W. Stanley, Jr.	392,890	Nov. 13	1048	271	45	806
Electric motors. Regulation of	A. G. Waterhouse	387,195	July 31	2772	725	44	565
Electric motors. Safety attachment for	C. F. Brush	391,114	Oct. 16	1316	351	45	268
Electric motors. Safety device for	C. J. Van Depoele	394,417	Dec. 11	1012	266	45	1274
Electric motors. Switching device for	R. H. Mather	382,715	May 15	1266	{ 331 332 }	43	771
Electric motors. Synchronizing	F. J. Patten	392,930	Nov. 13	1102	286	45	815
Electric motors. Synchronizing system for	F. J. Patten	392,967	Nov. 13	1160	301	45	825
Electric or other conduits. Crawler for	H. G. Morris	383,556	May 29	2-07	738	43	1087
Electric potential differentiator	E. Thomson	391,437	Oct. 23	1763	471	45	361
Electric power-controller	G. S. Nen	383,901	June 5	78	23	43	1136
Electric purposes. Mold for forming pieces of carbon for	C. H. Wilder	376,019	Jan. 3	407	{ 107 108 }	42	81
Electric regulator	J. A. Vansant and F. S. Anderson	387,463	Aug. 7	391	101	44	649
Electric resistance or currents. Thermal device for varying	E. Thomson	389,265	Sept. 11	713	182	44	1216
Electric shunting device	W. Baxter, Jr.	384,116	June 5	402	{ 111 112 }	43	1198
Electric signal	H. T. Hill	388,869	Sept. 4	97	26	44	1091
Electric signal or alarm	E. Davis	386,772	July 24	2108	{ 553 554 }	44	434
Electric smelling-bottle	C. T. Brown	383,794	May 29	2875	756	43	1099
Electric storage-battery	C. D. P. Gibson	379,572	Mar. 20	1046	278	42	1178
Electric-storage system	W. H. McDonald	389,935	Sept. 25	1731	459	44	1425
Electric switch	E. F. Bergman	385,539	July 3	311	80	44	63
Electric switch	W. B. Cleveland	391,512	Oct. 23	1864	500	45	3-3
Electric switch	J. F. McElroy	387,526	Aug. 7	485	127	44	667
Electric switch	P. J. Tracy	385,023	June 26	1775	459	43	1486
Electric switch	S. S. Wheeler	385,782	July 10	675	176	44	140
Electric switch. Automatic	I. L. Roberts	392,167	Oct. 30	2828	766	45	554
Electric switch-board	I. H. Farnham	394,964	Dec. 25	1923	497	45	1170
Electric switch-board	R. H. Welden	381,303	Apr. 17	1505	406	43	309
Electric switch or cut-out	W. C. Bryant	391,943	Oct. 30	2480	671	45	518
Electric switches or cut-outs. Arc-extinguisher for	A. H. Eddy	391,594	Oct. 23	1976	533	45	407
Electric therapeutic device	E. R. Whitney	376,018	Jan. 3	405	107	42	81
Electric traction. Apparatus for	E. Julien	384,580	June 12	1105	{ 291 292 293 }	43	1339
Electric translating devices. Regulator for	O. B. Shallenberger	390,911	Oct. 9	997	261	45	202
Electric wires and cables. Covering for	D. Brooks, Jr.	383,098	May 22	1832	432	43	892
Electric wires and street-railways. Elevated frame-work and support for	L. W. Brown	390,001	Sept. 25	1825	{ 483 484 }	44	1443
Electric wires. Conduit for	M. Dallas	391,587	Oct. 23	1967	530	45	405
Electric wires. Coupling for joining	C. Hering	379,221	Mar. 13	523	147	42	1071
Electric wires or cables. Conduit for	R. S. Waring	378,561	Feb. 28	1826	481	42	876
Electric wires or cables. Test-box for underground	R. S. Waring	378,560	Feb. 28	1824	481	42	876
Electric wires. Support for	D. Brooks, Jr.	383,097	May 22	1831	480	43	892
Electric wires. Suspending overhead	A. E. Harris	388,487	Aug. 28	1988	534	44	976
Electric wires. Underground conduit for	E. C. Lindemann	376,893	Jan. 24	1705	445	42	318
Electric wires. Underground conduit for	W. F. Smith	382,778	May 15	1351	{ 355 356 }	43	788
Electrical agricultural system	E. M. Bentley	382,941	May 15	1569	410	43	832
Electrical alarm	W. A. Barnes	395,112	Dec. 25	2149	{ 554 555 }	45	1514
Electrical apparatus	C. C. Sibley	381,856	Apr. 24	2341	607	43	489
Electrical apparatus. Coin-operated	P. Everett	386,919	July 31	2366	{ 621 622 623 }	44	491
Electrical apparatus. Coin-operated	N. W. Russ	382,734	May 15	1292	{ 339 340 }	43	776
Electrical apparatus. Protecting device for	A. S. Hibbard	377,073	Jan. 31	1958	514	42	404
Electrical cables. Test-circuit and apparatus for	I. H. Farnham	379,532	Mar. 13	972	262	42	1157
Electrical call system	J. C. McLaughlin	386,597	July 24	1835	492	44	389
Electrical circuit and apparatus guard	I. H. Farnham	392,724	Nov. 13	808	206	45	757
Electrical circuit-breaker	W. R. Cole	376,012	Jan. 10	488	132	42	105
Electrical coil and conductor	E. Weston	381,304	Apr. 17	1506	406	43	310
Electrical coil and conductor	E. Weston	381,305	Apr. 17	1508	406	43	310
Electrical conductor	W. A. Conner	388,477	Aug. 28	1976	530	44	973
Electrical conductor	T. Eggleston	376,818	Jan. 24	1601	419	42	328
Electrical conductor	E. Weston. (Reissue)	10,944	July 17	1640	421	44	339
Electrical conductor	E. Weston. (Reissue)	10,945	July 17	1641	431	44	340
Electrical conductor and insulating-conduit	R. F. Silliman	389,943	Sept. 25	1744	462	44	1428
Electrical conductors. Machine for dressing covered	W. H. Sawyer	380,053	Mar. 27	1787	{ 477 478 }	42	1331
Electrical conductors. Underground conduit for	M. R. Muckle, Jr.	378,801	Feb. 28	2171	577	42	942
Electrical conduit	J. Whelan	393,346	Nov. 20	1702	450	45	941
Electrical conduit. Underground	R. F. Silliman	378,021	Feb. 14	1021	267	42	707
Electrical conduits. Man-hole chamber for underground	M. R. Muckle, Jr.	378,802	Feb. 28	2173	578	42	943
Electrical connections. Mechanism for	P. W. and J. B. Wood	376,973	Jan. 24	1808	476	42	368
Electrical connections. Plug for making	G. Otto	379,568	Mar. 20	10-3	2-8	42	1184
Electrical connector	F. Stitzel and C. Weinedel	385,215	June 26	2059	528	43	1544
Electrical contact maker and breaker	C. Lambdin	379,074	Mar. 6	310	90	42	1024
Electrical conversion and distribution. Apparatus for	W. Stanley, Jr.	387,117	July 31	2644	696	44	545
Electrical conversion. System of	E. N. Dickerson, Jr.	377,994	Feb. 14	981	256	42	699
Electrical distribution. Alternate-current and storage system of	H. M. Bylesby	383,621	May 29	2603	{ 688 689 }	43	1016

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr't	Vol.	Page.
Electrical distribution. Alternate-current and storage system of	H. M. Byllesby	383,622	May 29	2605	689	43	1047
Electrical distribution. Alternate current system of	H. M. Byllesby and O. B. Shallenberger	381,054	Apr. 10	1143	{ 305 306 }	43	230
Electrical distribution. Apparatus for	G. B. Fraley	392,114	Oct. 30	2750	747	45	570
Electrical distribution by secondary batteries	T. P. Conant	389,638	Sept. 18	1278	337	44	1327
Electrical distribution by storage batteries	G. W. Walker	386,225	July 17	1326	350	44	273
Electrical distribution. Central station for alternate-current systems of	O. B. Shallenberger and H. M. Byllesby	380,946	Apr. 10	968	257	43	197
Electrical distribution. Combined alternate-current and storage system of	H. M. Byllesby	383,620	May 29	2601	688	43	1046
Electrical distribution. Combined alternate-current and storage system of	H. M. Byllesby	383,623	May 29	2606	689	43	1047
Electrical distribution. System and apparatus for	M. M. M. Slattery	391,923	Oct. 30	2449	662	45	511
Electrical distribution. System of	T. P. Conant and Z. Latshaw	378,432	Feb. 28	1638	431	42	837
Electrical distribution. System of	T. A. Edison	379,772	Mar. 20	1335	357	42	1235
Electrical distribution. System of	T. A. Edison	380,101	Mar. 27	1857	{ 493 494 }	43	1345
Electrical distribution. System of	T. A. Edison	380,102	Mar. 27	1859	494	42	1345
Electrical distribution. System of	T. A. Edison	382,415	May 8	805	206	43	673
Electrical distribution. System of	T. A. Edison	385,173	June 26	1993	511	43	1530
Electrical distribution. System of	W. H. Hart and J. T. Goodfellow	380,757	Apr. 10	677	{ 188 189 }	43	145
Electrical distribution. System of	J. W. Howell	377,488	Feb. 7	210	50	42	535
Electrical distribution. System of	O. B. Shallenberger	390,990	Oct. 9	1122	297	45	225
Electrical distribution. System of	M. M. M. Slattery	386,936	July 31	2359	629	44	496
Electrical distribution. System of	N. Tesla	381,070	May 1	107	26	43	534
Electrical distribution. System of	N. Tesla	390,413	Oct. 2	362	79.80	45	64
Electrical energy. Transformation and distribution of	W. J. McElroy and T. J. McTighe	393,073	Nov. 20	1313	342	45	863
Electrical governor	F. E. Prichard	380,817	Apr. 10	770	211	43	161
Electrical hand-cord tip	H. J. Swarts	380,829	Apr. 10	767	215	43	165
Electrical heater	J. P. Barrett and J. F. Mehren	375,915	Jan. 3	251	68	42	53
Electrical indicator	A. L. Riker	381,422	Apr. 17	1689	453	43	346
Electrical indicator	O. B. Shallenberger	380,947	Apr. 10	970	257	43	198
Electrical indicator	O. B. Shallenberger	383,669	May 29	2669	707	43	1061
Electrical indicator	O. B. Shallenberger	383,670	May 29	2671	707	43	1061
Electrical indicator	O. B. Shallenberger	383,671	May 29	2673	708	43	1061
Electrical instruments. Protector for	G. W. and W. Mingle	385,770	July 10	657	172	44	136
Electrical machines. Apparatus for dressing off the commutators of dynamo-	D. J. Tittle, Jr.	379,344	Mar. 13	695	189	42	1103
Electrical non-conductor	C. T. Lee and C. N. Waite	386,925	July 31	2377	625	44	493
Electrical protective system	E. Weston	389,272	Sept. 11	722	184	44	1217
Electrical purposes. Switch for	W. A. Carey	385,041	June 26	1805	464	43	1491
Electrical switch	J. S. Adams	391,351	Oct. 16	1640	434	45	329
Electrical switch	S. Bergmann and J. T. Dempster	376,976	Jan. 24	1814	477	42	369
Electrical switch	O. B. Johnson	392,034	Oct. 30	2611	709	45	543
Electrical switch	J. E. Mayo	385,815	July 10	720	188	44	148
Electrical switch. Automatic	F. Stitzel	382,625	May 8	1135	292	43	736
Electrical synchronous movement	H. C. Bridger	375,727	Jan. 3	8	2	42	4
Electrical testing apparatus	J. W. Packard	390,310	Oct. 2	151	42	45	33
Electrical translation. System of	R. Belfield	380,845	Apr. 10	810	220	43	168
Electrical translation. System of	R. Belfield	380,846	Apr. 10	812	221	43	168
Electrical transmission of power	N. Tesla	382,280	May 1	502	150	43	622
Electrical transmission of power	N. Tesla	382,281	May 1	506	151	43	622
Electrically-operative lock	G. S. Neu	390,705	Oct. 9	831	222	45	171
Electricity and purifying water. Generating	J. E. Siebel	385,145	June 26	1960	502	43	1523
Electricity by secondary batteries. Distribution of	T. P. Conant	394,642	Dec. 18	1377	360	45	1354
Electricity by secondary batteries. Distribution of	H. Edmunds	393,147	Nov. 20	1414	369	45	883
Electricity by secondary batteries. Distribution of	W. W. Griscom	393,470	Nov. 27	1902	498	45	987
Electricity for lighting. Distribution and control of	H. Edmunds	380,463	Oct. 2	370	95.96	45	77
Electricity from machinery. Apparatus for removing frictional	W. Schulte	393,125	Nov. 20	1384	361	45	877
Electro-dynamic machine	G. F. Card	380,620	Mar. 27	1741	466	42	1322
Electro-dynamic machine	E. E. Ries	390,905	Oct. 9	985	259	45	199
Electro-dynamic motor	E. E. Ries	390,904	Oct. 9	982	{ 258 259 }	45	198
Electro-magnetic brake	N. J. Clute	376,709	Jan. 17	1419	373	42	286
Electro-magnetic device	C. F. Brush	376,630	Jan. 17	1399	{ 341 342 }	42	263
Electro-magnetic device	H. A. Chase	389,196	Sept. 11	604	155	44	1193
Electro-magnetic motor	N. Tesla	381,968	May 1	101	24.25	43	534
Electro-magnetic motor	N. Tesla	381,969	May 1	105	25	43	534
Electro-magnetic motor	N. Tesla	382,279	May 1	589	149	43	622
Electro-magnetic motors. Governor for	C. F. Brush	383,857	June 5	11	4	43	1123
Electro-magnetic register	J. F. McLaughlin	383,583	May 29	2550	674	43	1034
Electro-magnetic separator	J. B. Hamilton	384,035	June 5	285	81	43	1176
Electro-magnetic switch	W. W. Griscom	394,485	Dec. 11	1106	288	45	1291
Electro-mechanical device	E. Thomson	381,442	Apr. 17	1721	{ 461 462 }	43	352
Electro-mechanical movement	B. Cadwallader	394,332	Dec. 11	891	235	45	1252
Electro-mechanical movement	R. H. Marber	387,310	Aug. 7	149	45	44	603
Electro-therapeutic battery	E. J. Murphy and J. Floyd	383,899	June 5	75	22	43	1135
Electro-therapeutic cap	N. P. Rutter	389,764	Sept. 18	1465	384	44	1365
Electrode. Battery	H. J. Brewer	390,748	Oct. 9	769	204	45	159
Electrode for electric batteries. Carbon	J. Beattie, Jr.	394,810	Dec. 18	1657	.....	45	1412
Electrode for secondary batteries	R. M. Elliott	389,455	Sept. 11	999	267	44	1270
Electrode for secondary batteries	R. Packer	380,922	Apr. 10	933	249	43	191
Electrode for secondary batteries	G. H. Stont	392,080	Oct. 30	26-2	730	45	556
Electrode for secondary batteries	G. H. Thompson	392,574	Nov. 6	579	146	45	706
Electrode for secondary batteries	H. Woodward	393,955	Dec. 4	324	88	45	1134
Electrode. Therapeutic	J. H. Woodward	390,544	Oct. 2	492	128	45	99
Electrodes for secondary batteries. Making	C. H. Thompson	392,573	Nov. 6	577	{ 145 146 }	45	706

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Electrodes for secondary batteries. Producing.....	H. Woodward.....	393,954	Dec. 4	392	87, 88	45	1134
Electrolysis. Apparatus for.....	E. Hermite and C. F. Cooper.....	381,372	Apr. 17	1613	431	43	331
Electrolyte compound.....	G. B. Pennock.....	377,210	Jan. 31	2150	.....	42	443
Electromotor. Duplex.....	C. J. Van Depoele.....	394,636	Dec. 4	435	117	45	1154
Electrophorus.....	J. D. Culp.....	383,105	May 22	1840	482	43	893
Electroplating. Apparatus for.....	L. McMurray.....	393,170	Nov. 20	1444	377	45	889
Electroplating. Rack for.....	W. W. White.....	384,896	June 19	1439	377	43	1412
Electrotypo-dies. Making.....	J. W. Tufts. (Reissue).....	10,956	Aug. 28	2451	{ 661 662 }	44	1064
Electrotype-plates. Bending.....	J. B. Miller and J. Dale.....	378,707	Feb. 23	2033	537	42	916
Electrotype-shells. Backing.....	J. R. Cummings.....	375,869	Jan. 3	187	.....	42	41
Elevated way.....	N. Newman.....	384,269	June 12	643	173	43	1253
Elevating-bolt.....	F. Prinz.....	381,848	Apr. 24	2330	605	43	487
Elevator:							
See Carriage-elevator. Hydraulic elevator.							
Electric elevator. Hydraulic or other eleva-							
Electrical water-eleva-							
tator. Ice-elevator.							
Grain-elevator. Load-elevator.							
Grain-binder eleva-							
tor. Rack-elevator.							
Hay-elevator. Tide-water elevator.							
Hay or grain eleva-							
tor. Wagon-bed elevator.							
Hod-elevator. Water-elevator.							
Elevator.....	C. W. Baldwin.....	390,053	Sept. 25	1906	503	44	1460
Elevator.....	N. C. Bassett.....	379,556	Mar. 20	1014	{ 271 272 }	42	1173
Elevator.....	W. F. Bullock and W. F. Hanson.....	388,627	Aug. 28	2185	587	44	1013
Elevator.....	E. B. Ellington.....	383,715	May 29	2742	722	43	1075
Elevator.....	A. C. Ellithorpe.....	391,598	Oct. 23	1981	534	45	408
Elevator.....	A. S. Humphrey.....	393,831	Dec. 4	140	39	45	1099
Elevator.....	W. S. Johnson.....	384,169	June 5	486	134	43	1215
Elevator.....	H. G. C. and L. A. Kreutzkamp.....	392,955	Nov. 13	1141	{ 296 297 }	45	822
Elevator.....	G. A. Moore.....	382,487	May 8	924	234	43	694
Elevator.....	A. C. Newton.....	385,722	July 10	583	151	44	121
Elevator.....	W. E. Nickerson.....	390,797	Oct. 9	893	222	45	171
Elevator.....	W. E. Nickerson.....	394,875	Dec. 18	1768	459	45	1432
Elevator.....	C. G. Otis.....	377,635	Feb. 7	426	{ 108 109 }	42	576
Elevator.....	C. R. Otis.....	390,033	Sept. 25	1870	495	44	1452
Elevator.....	F. L. Palmer.....	376,340	Jan. 10	868	228	42	176
Elevator.....	E. J. Stellwagen.....	382,841	May 15	1429	{ 375 376 }	43	804
Elevator.....	C. H. Stilson.....	392,700	Nov. 13	770	195	45	749
Elevator.....	S. E. Stokes.....	384,096	June 5	371	{ 104 105 }	43	1192
Elevator.....	D. P. Van Court.....	390,535	Oct. 2	478	135	45	97
Elevator.....	G. A. Weld.....	388,469	Aug. 28	1966	527	44	971
Elevator-alarm.....	J. Einig.....	384,831	June 19	1485	387	43	1420
Elevator-alarm.....	J. W. Holdsworth.....	381,015	Apr. 10	1077	286	43	218
Elevator-alarm.....	A. Oakley.....	377,403	Feb. 7	54	15	42	506
Elevator-boot.....	F. H. C. Mey.....	391,061	Oct. 16	1243	331	45	255
Elevator-boot.....	M. F. Seeley.....	382,772	May 15	1340	352	43	785
Elevator-brake.....	R. L. Teed.....	380,465	Apr. 3	223	63	43	47
Elevator-bucket.....	W. G. Avery.....	392,532	Nov. 6	523	131	45	604
Elevator-carriage.....	C. Haas.....	377,751	Feb. 14	607	156	42	624
Elevator-controlling device.....	Q. N. Evans and W. Schwanhauser.....	378,045	Feb. 14	1052	{ 275 276 }	42	712
Elevator for grain, water, &c.....	M. Garland.....	392,421	Nov. 6	360	80, 90	45	662
Elevator-gate.....	J. H. Preater.....	386,605	July 24	1873	495	44	391
Elevator-gate. Automatic.....	J. M. Caldwell.....	389,363	Sept. 11	859	221	44	1241
Elevator-gate. Automatic.....	A. Miller.....	388,431	Aug. 28	1912	511	44	960
Elevator-gates. Operating.....	J. Gibbons.....	387,224	Aug. 7	38	8, 9	44	579
Elevator-guard.....	W. D. House.....	391,615	Oct. 23	2002	541	45	412
Elevator-guide.....	L. S. Graves.....	394,768	Dec. 18	1591	417	45	1400
Elevator hand-ropes. Device for operating.....	Q. N. Evans.....	379,381	Mar. 13	750	203	42	1114
Elevator-indicator.....	R. F. Cartwright.....	391,355	Oct. 16	1646	435	45	331
Elevator-indicator.....	H. Eichbaum.....	382,354	May 8	719	182	43	655
Elevator-lock.....	E. J. Herman.....	382,910	May 15	1024	424	43	842
Elevator mechanism. Valve-controlling device for.....	A. C. Ellithorpe.....	391,597	Oct. 23	1960	534	45	407
Elevator-operating device.....	I. H. Venn.....	390,825	Oct. 9	874	232	45	179
Elevator safety apparatus.....	C. E. Onzley.....	389,853	Sept. 18	1607	424	44	1393
Elevator safety appliance.....	A. Stigler.....	377,537	Feb. 7	286	72	42	550
Elevator safety attachment.....	A. Neaburger.....	378,899	Mar. 6	57	17	42	977
Elevator safety device.....	C. W. Baldwin.....	390,052	Sept. 25	1903	{ 502 503 }	44	1460
Elevator safety device.....	J. S. Beggs.....	382,208	May 1	482	124	43	602
Elevator safety device.....	J. W. Dustin.....	393,425	Nov. 27	1822	481	45	972
Elevator safety device.....	A. C. Ellithorpe.....	376,374	Jan. 10	912	{ 239 240 }	42	183
Elevator safety device.....	C. Klinik, F. Pinkowski, and A. Gross.....	384,319	June 12	714	190	43	1266
Elevator safety device.....	C. R. Otis.....	390,032	Sept. 25	1868	494	44	1452
Elevator safety device.....	F. Trabue.....	386,565	July 24	1828	433	44	381
Elevator safety-lock.....	R. D. Thackston.....	386,367	July 17	1514	401	44	309
Elevator-shafts. Fire-shutter for.....	A. G. Page.....	386,490	July 24	1708	{ 451 452 }	44	360
Elevator-signal.....	J. E. Riley.....	388,918	Sept. 4	168	45	44	1104
Elevator-wells. Automatic door for.....	J. P. Runkel.....	384,083	June 5	356	101	43	1189
Elevator-wells. Door-guard for.....	O. L. Davis.....	387,496	Aug. 7	440	{ 114 115 }	44	659

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Elevator-wells, hatchways, or other roof-openings. Safety-cover for	E. H. Ashcroft.....	386,620	July 24	1893	{ 500 501 }	{ 44 44 }	395
Elevators. Automatic stop for	W. F. Hanson and W. F. Bullock.....	375,745	Jan 3		37	11	42
Elevators. Automatic stop for	G. P. Hedge.....	386,743	July 24	2068	545	44	427
Elevators. Controller for	W. S. Johnson.....	393,834	Dec. 4	145	39, 40	45	1100
Elevators. Driving mechanism for	J. P. Bower.....	377,139	Jan. 31	2052	537	42	423
Elevators. Operating mechanism for hydraulic	N. C. Bassett.....	377,346	Jan. 31	2358	682	42	480
Elevators. Safety apparatus for	J. A. Moore.....	388,297	Aug. 21	1706	455	44	917
Elevators. Slack-cable stop-motion for	L. S. Graves.....	386,464	July 24	1678	442	44	354
Elevators. Speed-governor for	C. H. Read, Jr., and A. M. Coyle.....	392,753	Nov. 13	848	216	45	765
Elevators. Speed-regulator for	W. E. Nickerson.....	394,600	Dec. 18	1304	341	45	1342
Ellipsograph	H. Bormann.....	383,696	May 29	2704	715	43	1067
Ellipsograph	H. Bormann.....	383,697	May 29	2707	715	43	1068
Ellipsograph	C. Wilson and J. S. Foster.....	386,619	July 24	1902	500	44	395
Elliptic spring	J. R. Fletcher.....	381,688	Apr. 24	2081	544	43	441
Elliptic spring	W. G. Holmes.....	381,925	May 1		38	10	43
Elliptic spring	G. W. Morris and W. H. Lawrence.....	393,569	Nov. 27	2043	535	45	1018
Elliptic spring	W. A. Sweet.....	383,329	May 22	2159	570	43	954
Embalming apparatus	F. Wagner.....	383,505	May 29	2442	648	43	1013
Embalming-instrument	H. N. Siegenthaler.....	387,454	Aug. 7		378	98	44
Embossing-die	W. Duncan.....	380,099	Mar. 27	1853	493	42	1314
Embossing-machine	J. M. Baker.....	389,949	Sept. 25	1749	463	44	1429
Embossing-machine	M. T. Durkin.....	382,801	May 15	1385	363	43	794
Embossing wood or other material. Machine for	B. Ludwig.....	380,904	Apr. 10	907	{ 243 244 }	{ 43 43 }	186
Embroidering frame and stand	H. C. Ludwig.....	383,533	May 29	2490	657	43	1021
Embroidering-machine	E. Cornely.....	392,010	Oct. 30	2579	{ 701 702 }	{ 45 45 }	536
Embroidering-machine	J. O. Phillips.....	382,619	May 8	1126	{ 290 291 }	{ 43 43 }	735
Embroidering-machine	R. T. Smith.....	377,408	Feb. 7	60	{ 16 17 18 }	{ 42 42 42 }	507
Embroidering-machine	R. T. Smith.....	377,409	Feb. 7	81	18, 19	42	509
Embroidering-machine	R. T. Smith.....	377,411	Feb. 7	97	20, 21	42	513
Embroidering-machine	R. T. Smith.....	377,412	Feb. 7	102	21	42	514
Embroidering-machine attachment	E. Aldom and H. E. Schmitz.....	380,075	Mar. 27	1822	485	42	1338
Embroidering-machines. Automatic stitch-adjusting mechanism for	R. T. Smith.....	377,410	Feb. 7	89	20	42	511
Embroidering-machines. Bead-feeding attachment for	G. E. Strauss and J. B. West.....	392,893	Nov. 13	1054	272	45	806
Embroidering-machines. Holding-frame for	F. Gegauf.....	388,035	Aug. 21	1272	{ 345 346 }	{ 44 44 }	833
Embroidery-frame	C. Herrmenau.....	389,811	Sept. 18	1531	405	44	1379
Embroidery-stand	A. M. Parcellle.....	378,901	Mar. 6	59	18	42	978
Emery grinding-machine	C. E. Roberts.....	376,451	Jan. 17	1032	270	42	213
Emery-wheel	W. Cavert.....	376,854	Jan. 24	1656	433	42	338
Emery-wheel dresser	C. H. Douglas.....	389,064	Sept. 4	376	98	44	1144
Emulsifier	G. W. Towar, Jr.....	378,381	Feb. 21	1556	406	42	815
End-gate	F. H. Allen.....	376,842	Jan. 24	1640	429	42	335
End-gate	P. Bartzten.....	378,352	Feb. 21	1519	397	42	808
End-gate	E. L. Burklund.....	385,841	July 10	760	{ 199 200 }	{ 44 44 }	155
End-gate	J. Clayton.....	376,405	Jan. 10	950	249	42	190
End-gate	J. Cunningham.....	381,057	Apr. 10	1149	306	43	231
End-gate	J. Haish.....	380,483	Apr. 3	256	71	43	53
End-gate	N. Henizer.....	381,070	Apr. 10	1172	311	43	236
End-gate	J. M. King.....	377,680	Feb. 7	495	128	42	589
End-gate	E. B. Mode.....	394,785	Dec. 18	1622	435	45	1405
End-gate	H. O'Hare.....	392,966	Nov. 13	1159	301	45	825
End-gate	F. Sanderson and E. H. Winchell.....	391,275	Oct. 16	1543	409	45	812
End-gate	F. Selle.....	388,002	Aug. 14	1223	332	44	816
End-gate	E. C. Ward.....	389,619	Sept. 18	1247	336	44	1322
End-gate fastening	G. W. Gardner and C. K. Sisco.....	395,129	Dec. 25	2177	561	45	1519
End-gate. Wagon	S. N. Lennon.....	393,016	Nov. 20	1240	322	45	849
End-gate. Wagon	E. and J. P. Reichart.....	390,253	Oct. 2	81	23	45	19
End-gate. Wagon	U. S. Tyn.....	389,679	Sept. 18	1348	353	44	1341
Endless carrier	A. L. Middleton.....	387,727	Aug. 14	809	209	44	733
Engine:							
See Beating-engine.	Oscillating engine.						
Blowing-engine.	Petroleum-engine.						
Carding-engine.	Portable engine.						
Chemical engine.	Power-engine.						
Compound engine.	Pressure-engine.						
Compound or ex-	Pumping-engine.						
haustive engine.	Road-engine.						
Compressing or blow-	Rotary engine.						
ing engine.	Rotary-cylinder engine.						
Dental engine.	Rotary steam-engine.						
Direct-acting engine.	Rotary vapor-engine.						
Expansion-engine.	Steam-engine.						
Gas-engine.	Steam or gas motor en-						
Gas and caloric en-	gine.						
gine.	Steam or other engine.						
Gas-motor engine.	Steam or pneumatic en-						
Gas or caloric engine.	gine.						
High-speed engine.	Traction engine.						
Hot-air engine.	Triple-expansion engine.						
Motor-engine.	Wind-engine.						
Naphtha-engine.							
Engine.	W. F. Duke.....	395,039	Dec. 25	2032	525	45	1491
Engine.	C. C. Worthington.....	385,397	July 3	87	24	44	19
Engine brake. Road	R. R. Schneider.....	395,003	Dec. 25	1986	512	45	1482



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Engine crank-shafts. Instrument for testing the fairness of steam.	J. Paterson.....	377,115	Jan. 31	2026	530	42	417
Engine cross-head .....	D. P. Whitesoll.....	388,937	Sept. 4	196	52	41	1110
Engine cross-head. Steam.....	L. D. Davis.....	394,345	Dec. 11	914	240	45	1256
Engine dash-pot. Steam.....	F. Phillips.....	378,105	Feb. 21	1138	297	42	737
Engine-governing device.....	D. Higham.....	395,233	Dec. 25	2357	603	45	1549
Engine-shafts directly to the driven machines. Device for gearing	E. H. Hewins.....	388,415	Aug. 28	1890	505	41	955
Engines. Apparatus for controlling the speed of steam.	R. Wilby.....	382,577	May 8	1067	272 } 273 }	43	723
Engines. Apparatus for heating the ignition-tubes of gas-motor	N. A. Otto.....	382,301	Aug. 21	1719	459	44	918
Engines. Apparatus for recording the variations of speed in motive-power	N. Macbeth.....	377,111	Jan. 31	2020	529	42	416
Engines. Cross-head for steam.....	F. Robb.....	389,978	Sept. 25	1793	475	44	1437
Engines. Electrical stop-motion for steam.....	R. Exley.....	378,668	Feb. 28	1079	525	42	906
Engines. Igniting apparatus for gas-motor.....	N. A. Otto.....	388,303	Aug. 21	1732	460	41	919
Engines. Igniting apparatus for gas or oil motor.....	N. A. Otto.....	390,092	Sept. 25	1969	524	44	1473
Engines or pumps. Reversing attachment for rotary.	C. H. Cary.....	392,260	Nov. 6	122	31	45	618
Engines. Regulator for steam pumping.....	M. Greenwood.....	382,800	Sept. 4	79	21, 22	44	1088
Engines. Reversing device for.....	D. P. Kane.....	376,658	Jan. 17	1342	352	42	271
Engines. Reversing-lever for.....	F. McCarthy.....	376,882	Jan. 24	1094	442	42	345
Engines. Speed and pressure regulator for blowing.	W. E. Hall.....	385,941	July 10	909	242	44	186
Engines. Steering apparatus for traction.....	C. A. Copeland.....	394,460	Dec. 11	1072	279	45	1284
Engines. Variable expansive and reversing motion for oscillating cylinder	J. W. Hartley.....	388,558	Aug. 28	2081	560	44	993
Engines. Wrist-pin for.....	F. C. Chase and D. A. B. Bailey.....	393,211	Nov. 20	1509	395	45	903
Engraving and chasing machine.....	J. A. Coburn.....	381,214	Apr. 17	1379	369	43	224
Engraving-machine.....	W. R. Moore.....	387,595	Aug. 7	613	159 } 160 }	44	690
Engraving-machine. Pantographic.....	G. R. Hugon.....	384,764	June 19	1378	361	43	1400
Engraving or etching upon. Block for.....	W. C. Norman.....	384,586	June 12	1116		43	1340
Envelope.....	G. A. Bobrick.....	380,616	Apr. 3	467	132	43	95
Envelope.....	H. Oliver.....	389,318	Sept. 11	795	202	44	1231
Envelope.....	E. L. Potter and G. B. Upham.....	378,849	Feb. 28	2256	600	42	958
Envelope and stamp moistener.....	J. R. Porter.....	388,914	Sept. 4	164	44	44	1103
Envelope-cutter.....	J. S. Holmes.....	388,872	Sept. 4	102	27	41	1092
Envelope. Elastic folding display.....	H. P. Eysenbach.....	381,919	May 1	29	9	43	520
Envelope-fastening.....	W. H. Hubbard.....	383,642	May 29	2634	697	43	1053
Envelope for newspapers and other merchandise.....	R. W. Macgowan.....	376,249	Jan. 10	745	197 } 198 }	42	152
Envelope-holder.....	L. M. Culver and W. F. Smith.....	381,677	Apr. 24	2068	540	43	439
Envelope-machine.....	G. R. Clarke.....	392,781	Nov. 13	900	230 } 231 }	45	774
Envelope-machine.....	S. A. Grant.....	392,916	Nov. 13	1083	280 } 281 }	45	812
Envelope-machine.....	D. M. Lester.....	394,586	Dec. 18	1285	337	45	1338
Envelope-machine.....	A. A. Rheutan.....	385,524	July 3	288	74, 75	44	58
Envelope-machine.....	A. A. Rheutan.....	385,525	July 3	293	75	44	59
Envelope-machine. Rotary.....	S. A. Grant.....	387,065	July 31	2568	675 } 676 }	44	531
Envelope-opener.....	F. Curtis.....	388,343	Aug. 21	1776	474	44	929
Envelope. Reversible sample.....	G. Doutney.....	392,501	Nov. 6	477	120	45	685
Envelope sealer and stamper.....	H. J. Moore.....	377,170	Jan. 31	2092	551	42	432
Envelope-tablet.....	H. Phillips.....	385,320	June 26	2230	571 } 572 }	43	1577
Envelopes. Machine for sealing and stamping.....	H. J. Moore.....	376,333	Jan. 10	862	226	42	174
Equalizer for vehicles.....	J. Caulfield.....	392,007	Oct. 30	2575	700	45	535
Equalizer. Four-horse.....	J. A. M. Tyler and J. S. Thomas.....	384,652	June 19	1211	320	43	1368
Eraser.....	C. J. Bailey.....	392,253	Nov. 6	113	29	45	616
Eraser.....	J. W. Osborne.....	383,483	May 29	2410	640	43	1007
Eraser.....	C. Robinson.....	383,149	May 22	1906	498	43	907
Eraser. Blackboard.....	H. C. Goodrich.....	388,555	Aug. 28	2077	559	44	992
Eraser-holder.....	F. G. Osborn.....	377,209	Jan. 31	2149	568	42	443
Eraser. Rubber.....	W. Friend.....	376,081	Jan. 10	497	135	42	107
Eraser. Slate.....	G. Wilkening.....	382,925	May 15	1544	405	43	828
Eraser. Slate.....	G. Wilkening.....	390,541	Oct. 2	488	127	45	98
Erasers. Cleaner for blackboard.....	J. S. McKluing.....	378,602	Feb. 28	1888	500	42	889
Etching and producing inextinguishable metallic deposits upon bright metal surfaces	E. Nienstaedt.....	390,391	Oct. 2	277		45	59
Etching glass.....	E. Nienstaedt.....	382,318	May 8	653		43	644
Etching on glass, metals, &c. Appliance for.....	C. Tompsett.....	393,867	Dec. 4	201	54, 55	45	1110
Etching on one or both sides.....	J. Baynes.....	378,423	Feb. 28	1619	436	42	834
Evaporating and condensing liquids. Apparatus for.....	J. J. Hayes.....	389,075	Sept. 4	390	102	44	1147
Evaporating apparatus.....	P. Laberie.....	378,598	Feb. 28	1876	496	42	886
Evaporating apparatus.....	W. Marr.....	389,160	Sept. 4	547	138	44	1173
Evaporating apparatus. Vacuum.....	O. Biemann.....	386,958	July 31	2421	636	44	502
Evaporating apparatus. Vacuum.....	H. T. Yaryan.....	383,384	May 22	2234	593 } 594 }	43	968
Evaporating-coil.....	W. H. Odell.....	380,050	Mar. 27	1784	476	42	1330
Evaporating liquids. Apparatus for.....	J. U. Lloyd.....	384,939	July 10	907	241	44	186
Evaporating liquids. Vacuum apparatus for.....	S. M. Lillie.....	378,843	Feb. 28	2243	598	42	956
Evaporating-pan.....	D. Jones.....	392,864	Nov. 13	1018	260 } 261 }	45	799
Evaporating-pan.....	T. Makemson.....	384,772	June 19	1392	364	43	1403
Evaporating-pan.....	M. Mathews and H. Hill.....	382,311	May 8	649	165 } 166 }	43	643
Evaporating-pan.....	H. F. Thurston.....	376,490	Jan. 17	1088	286	42	223
Evaporating-pans. Cover for.....	G. E. Wheeler.....	393,196	Nov. 20	1488	388	45	898
Evaporating-pans. Discharging apparatus for closed.	A. Miller.....	375,946	Jan. 3	297	80	42	62

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Evaporator:							
See Fruit-evaporator.							
Evaporator	W. S. Gilmore	393,099	Nov. 27	2245	589	45	1058
Evaporator	N. B. Rice	385,202	June 26	2043	522	43	1540
Evener. Four-horse	C. C. Issenhuth	384,167	June 5	485	133	43	1215
Evener. Four-horse	W. D. Sauer	380,522	Apr. 3	328	94	43	67
Excavating and machinery therefor	T. Whitaker	376,793	Jan. 24	1562	410	42	322
Excavating and pipe-laying machine	W. Watson	385,435	July 3	151	40, 41	44	31
Excavating apparatus	J. S. Whitcomb	387,476	Aug. 7	407	107	44	652
Excavating-bucket	T. and J. J. Lawler	578,099	Feb. 21	1130	295	42	735
Excavating-machine	C. S. Jones	384,041	June 5	299	83, 84	43	1177
Excavator	R. R. Osgood	388,910	Sept. 4	156	41	44	1102
Excavator	B. K. Reed	378,730	Feb. 28	2049	541	42	919
Excavator	J. S. Whitcomb	378,125	Feb. 21	1168	{ 304 305 }	42	743
Excavator and conveyer	J. Cable	390,201	Oct. 2	6	2, 3	45	4
Excavator and self-loading conveyer	J. Cable	376,708	Jan. 17	1417	{ 372 373 }	42	285
Excavator for removing snow. Rotary	E. Leslie	391,903	Oct. 30	2422	655	45	506
Excavator. Submarine	C. A. Morris	391,331	Oct. 16	1612	{ 426 427 }	45	325
Excavator. Wheeled	S. M. Lockwood	391,627	Oct. 23	2018	546	45	415
Excavators. Casing for rotary	E. Leslie	391,904	Oct. 30	2425	656	45	507
Excelsior. Apparatus for the manufacture of	D. T. H. MacKinnon	388,890	Sept. 4	125	34, 35	44	1096
Excelsior. Machine for making	A. M. Little	382,431	May 8	829	212	43	677
Excelsior. Machine for making	W. H. Moore	379,592	Mar. 20	1074	286	42	1183
Exercising apparatus	A. H. Howard	376,741	Jan. 24	1468	388	42	304
Exercising apparatus	S. Wild	389,622	Sept. 18	1250	327	44	1323
Exercising-machine	S. M. Barnett	385,901	July 10	861	227	44	176
Exercising-machine	C. M. Bartbolomew	387,845	Aug. 14	970	253	44	766
Exercising-machine	J. Rice	393,265	Nov. 20	1586	415	45	918
Exercising-machine	J. Sanchez	382,440	May 8	847	216	43	680
Exercising-machine. Coin-controlled cigar-delivering	F. Mosser	381,409	Apr. 17	1669	447	43	342
Exercising-machine. Electric	E. W. Robinson, C. H. O'Brien, and H. M. Breen	375,835	Jan. 3	148	42	42	34
Exhaust. Means for utilizing	S. Wolfson	384,733	June 19	1335	348	43	1391
Exhaust. Utilizing	W. Schmidt	381,957	May 1	82	20	43	530
Exhauster	E. and G. H. Ritzenfeld	393,857	Dec. 4	182	49, 50	45	1106
Exhibiting apparatus. Automatic	B. Hamburg, and P. and E. Ketterer	393,898	Dec. 4	244	66, 67	45	1119
Exhibitor for shirts, &c	G. H. Hardy and R. A. Baldwin	392,797	Nov. 13	923	236	45	779
Expansion drill or cutter	S. W. Douglass	392,592	Nov. 13	612	154	45	718
Expansion drill or reamer	E. A. Lilly	387,169	July 31	2730	716	44	558
Expansion engine. Triple	H. F. Gaskill	384,250	June 12	619	{ 166 167 }	43	1249
Expansion-joint	R. F. Pratt and C. D. Wainwright	388,915	Sept. 4	165	44	44	1104
Expansion-joint and rail-coupling	D. M. Armitage	376,845	Jan. 24	1644	{ 430 431 }	42	336
Explosive and making the same	A. Favier	393,634	Nov. 27	2147	561	45	1038
Explosive charge	J. W. Graydon	382,229	May 1	513	132	43	608
Explosive compound	C. W. Volney	393,420	May 22	2300	.....	43	979
Explosive derived from phenol	S. H. Emmens	376,145	Jan. 10	598	.....	42	126
Explosive engine	L. Julig and E. Ewald	387,167	July 31	2728	716	44	558
Explosive motor or engine	W. L. Horne	387,561	Aug. 7	558	146	44	680
Explosives for use. Preparing	J. W. Graydon	382,228	May 1	512	132	43	608
Explosives. Manufacture of	C. E. Bichel	376,849	Jan. 24	1649	.....	42	337
Explosives. Preparing	D. Johnson	376,000	Jan. 3	377	.....	42	77
Express-call	C. J. Heitzman	381,472	Apr. 17	1766	{ 471 472 }	43	360
Extension-clamp	P. S. Graves	386,065	July 10	1068	285	44	218
Extension-gage	F. J. Brown and D. H. James	379,361	Mar. 13	718	195	42	1108
Extension-handle	J. P. Lybarger	393,377	Nov. 27	1756	465	45	960
Extension-screen	E. L. Gray	388,276	Aug. 21	1677	448	44	917
Extension-table	G. Q. Dolliver	393,890	Dec. 4	234	62, 63	45	1117
Extension-table	S. S. Sutherland	384,178	June 5	500	{ 136 137 }	43	1218
Extract of meat. Liquid	S. M. Caffyn	384,823	June 19	1473	.....	43	1418
Extractor:							
See Cartridge-extractor.	Post-extractor.						
Cork-extractor.	Rivet-extractor.						
Lemon-juice extractor.	Seed-extractor.						
Nail-extractor.	Spike-extractor.						
Pen-extractor.	Stopper-extractor.						
Pipe, tube, or shell extractor.	Stump-extractor.						
Tree-extractor.							
Extracts. Making	M. Gross	393,976	Dec. 4	354	96	45	1139
Extracts. Making	J. H. Lorimer	394,191	Dec. 11	668	179	45	1208
Eye-bar-upsetting apparatus	F. H. Smith	387,822	Aug. 14	935	242	44	750
Eye-bar-upsetting machine	F. H. Smith	387,823	Aug. 14	937	{ 242 243 }	44	760
Eye-bars. Blank for	W. R. Webster	383,509	May 29	2447	649	43	1014
Eye-bars. Die for making	J. F. Kingsley	384,450	June 12	910	237	43	1302
Eye-bars. Machine for upsetting	W. Cooke and D. Carlough	380,863	Apr. 10	840	227	43	174
Eye-bars. Machine for upsetting	W. Cooke and D. Carlough	399,458	Oct. 2	364	94	45	76
Eye-bars. Manufacture of	J. Kennedy	395,239	Dec. 25	2364	605	45	1551
Eye-bars. Sprading the ends of	W. R. Webster	383,508	May 29	2446	648	43	1014
Eye, face, and lung protector	P. Baggerly	387,843	Aug. 14	969	252	44	765
Eye-protector	A. P. Cole	387,709	Aug. 14	779	199	44	728
Eyeglass-frame	A. J. Bellati	391,934	Oct. 30	2468	667	45	515
Eyeglass-holder	C. S. Ball	376,847	Jan. 24	1647	431	42	336
Eyeglass-holder	M. Riggs	392,363	Nov. 6	278	71	45	647
Eyeglass-holder	S. W. Saxton	392,367	Nov. 6	283	72	45	648

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Page.	Vol.	Page.
Eye-glasses.....	J. Bowles.....	386,799	July 31	2164	570	44	454
Eye-glasses.....	A. Kahn.....	380,491	Apr. 3	269	74	43	55
Eye-glasses.....	A. Kahn.....	382,987	May 15	1634	428	43	844
Eye-glasses.....	H. E. Kirstein.....	393,986	Dec. 4	371	100	45	1142
Eye-glasses.....	H. E. Kirstein.....	393,987	Dec. 4	372	101	45	1143
Eye-glasses.....	F. Müller.....	392,522	Nov. 6	505	126	45	691
Eye-glasses.....	A. Schultze.....	384,475	June 12	938	244	43	1308
Eye-glasses.....	W. S. Wells.....	383,604	May 29	2572	681	43	1039
Eye-glasses. Nose-guard for.....	G. H. Emerson.....	388,545	Aug. 28	2065	556	44	990
Eye-glasses. Nose-guard for.....	W. S. Wells.....	382,848	May 15	1440	379	43	807
Eyelet-setting machine.....	E. B. Stimpson, Jr.....	391,208	Oct. 16	1445	387	45	294
Eyelets. Machine for rolling flanged.....	A. G. Mead.....	383,403	May 22	2272	604	43	974
Eyeletting-machine.....	L. D. Hawkins and J. C. Paige.....	384,157	June 5	465	128 129	43	1210
Eyeletting-machine.....	E. B. Stimpson, Jr.....	391,925	Oct. 30	2452	662 663	45	512
Fabric: See Carpet fabric. Pile fabric. Knit fabric. Roofing fabric. Knitted fabric. Terry fabric. Loop-surfaced fabric. Woven fabric. Non-heat-conduct- Woven pile fabric. ing fabric.							
Fabric-coating machine.....	H. G. Bunch.....	392,779	Nov. 13	898	229	45	773
Fabric. Machine for ornamenting strips of.....	G. and J. H. Taylor.....	376,995	Jan. 24	1840	485 486 487	42	374
Fabrics. Machine for pressing and turning the edges of woven.....	H. O. Nauen.....	391,638	Oct. 23	2032	550	45	419
Fabrics. Trimming or edging for.....	R. W. Scott.....	395,004	Dec. 25	1929	513	45	1482
Fabric-turling implement.....	F. E. Connett.....	377,192	Jan. 31	2117	559	42	437
Fabric-turling implement.....	C. C. Harris.....	381,997	May 1	170	44	43	545
Fabric-turling implement.....	D. Lewis.....	388,422	Aug. 28	1900	507	44	957
Fabric-turling implement.....	W. H. Smith.....	3-9,333	Sept. 11	812	207	44	1235
Fabrics. Apparatus for guiding, straightening, and evening.....	S. Arnold.....	378,222	Feb. 28	2208	588 589	42	949
Fabrics. Implement for turning tubular.....	L. Eschuer.....	382,958	May 15	1594	416	43	837
Fabrics. Machine for uniting looped.....	W. Beattie.....	389,134	Sept. 4	499	127 128	44	1165
Fair-stitch loops. Machine for cutting.....	A. G. Williams.....	389,866	Sept. 18	1629	430	44	1397
Fan.....	J. B. Baermann.....	382,205	May 1	479	123	43	6-1
Fan.....	J. A. Myers.....	387,596	Aug. 7	616	160	44	690
Fan.....	M. Rubin.....	382,242	May 1	532	136	43	611
Fan. Automatic.....	H. Goodspeed.....	390,663	Oct. 9	646	173	45	137
Fan. Automatic.....	W. Haslam.....	391,245	Oct. 16	1496	397	45	304
Fan. Chair.....	G. B. Ulrichs.....	394,229	Dec. 11	730	193 194	45	1219
Fan. Exhaust.....	D. A. Sailor.....	394,400	Dec. 11	992	260	45	1270
Fan for cars.....	J. M. V. Le Beau.....	382,818	May 15	1404	368	43	799
Fan for furniture. Automatic.....	H. M. Bien.....	385,695	July 10	543	142	44	113
Fan for ventilating purposes.....	J. Stewart.....	382,119	May 1	357	94	43	579
Fan-motor.....	J. G. Stephens.....	387,325	Aug. 7	191	49	41	608
Fan or brush. Fly.....	H. Rembert.....	388,719	Aug. 28	2320	621	44	1038
Fan. Power.....	J. Carr.....	378,659	Feb. 28	1965	522	42	904
Fan. Power.....	J. A. Mason, E. F. Mulkey, and G. W. Houston.....	376,327	Jan. 10	851	224	42	172
Fan. Rotary.....	R. B. Cissel.....	380,788	Apr. 10	736	201	43	155
Fan. Rotary.....	W. J. Mingle.....	378,710	Feb. 28	2037	538	42	917
Fan. Rotary.....	P. Murray, Jr.....	377,573	Feb. 7	329	85	42	558
Fan. Toilet.....	G. R. Burdon.....	376,231	Jan. 10	719	191	42	148
Fans. Power-translator for driving.....	J. M. Orford.....	389,6-5	Sept. 18	1328	317	44	1337
Fans. Spring-motor for.....	G. W. Houston.....	390,369	Oct. 2	241	65	45	51
Fanning-mill.....	H. G. Blom.....	392,713	Nov. 13	769	200	45	753
Fanning-mill.....	J. S. Constant.....	378,772	Feb. 28	2116	559	42	931
Fanning-mill.....	J. C. Kisser.....	389,977	Sept. 25	1792	475	44	1437
Fare-box.....	F. B. Brownell.....	390,946	Oct. 9	1046	276 277	45	212
Fare-box.....	W. A. Crowds.....	382,756	May 15	1318	317	43	781
Fare-box chute.....	W. S. Wales.....	384,654	June 19	1213	320	43	1368
Fare-boxes. Automatic locking attachment for.....	J. H. Claspy.....	382,867	May 15	1466	384 385	43	811
Fare-boxes. Locking-receptacle for.....	G. Reimann.....	379,811	Mar. 20	1406	375	42	1249
Fare-register.....	H. R. Coffey.....	384,425	June 12	875	228	43	1296
Fare-register.....	J. W. Fowler and D. F. Lewis.....	391,702	Oct. 23	2122	573	45	436
Fare-register.....	E. M. Green.....	389,702	Sept. 18	1380	362	44	1348
Fare-register.....	W. Pigott.....	383,008	May 15	1673	437 438	43	852
Fare register and recorder.....	R. M. Rose.....	377,960	Feb. 11	936	214	42	690
Fare-register. Electric.....	E. A. Seales.....	383,857	Sept. 18	1614	426 427	44	1394
Fare-registers. Device for ringing.....	J. M. Haum.....	387,355	Aug. 7	229	60	44	616
Farm-gate.....	J. J. Bughman.....	377,844	Feb. 14	769	196	42	656
Farm-gate.....	I. Burkholder.....	377,479	Feb. 7	196	46	42	533
Farm-gate.....	P. Dyer.....	385,302	June 26	2207	506	43	1572
Farm-gate.....	P. Dyer.....	393,891	Dec. 4	235	63	45	1117
Farm-gate.....	O. F. A. Faulkner.....	392,599	Nov. 13	626	157	45	721
Farm-gate.....	A. J. Hoskins.....	394,117	Dec. 4	553	148 149	45	1177
Farm-gate.....	C. P. Howe.....	385,626	July 3	441	111	44	86
Farm-gate.....	L. C. Hunter.....	391,746	Oct. 23	2179	588	45	447
Farm-gate.....	J. P. Irwin.....	390,127	Sept. 25	2017	538	44	1483
Farm-gate.....	V. D. Johnson and V. Oppfelt.....	382,703	May 15	1253	327	43	768
Farm-gate.....	D. W. Petticoffer.....	388,071	Aug. 21	1334	360	44	845
Farm-gate.....	W. H. Ragsdale.....	384,280	June 12	659	176	43	1256

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Farm-gate	L. Shepard	383,078	May 15	1792	464	43	875
Farm-gate	S. Smyth	380,143	Mar. 27	1914	511	42	1356
Farm-gate	W. A. Wolfinger	391,673	Oct. 23	2078	562	45	428
Fastener. Metallic	G. Hiller	391,050	Oct. 16	1230	327	45	233
Fastening device	W. D. Carter and W. S. Loutber	380,990	Apr. 10	1048	277	43	212
Fastening device	C. H. Pratt	378,460	Feb. 28	1682	441	42	846
Fastening device. Automatic	E. Wilkinson	389,037	Sept. 4	337	88	44	1136
Fatty constituents from wash-waters. Recovering the	W. Graff	389,295	Sept. 11	769		44	1226
Faucet	E. P. J. Freeman	385,108	June 26	1906	486	43	1512
Faucet	T. Haynes	387,162	July 31	2719	713	44	556
Faucet	A. P. Howes	388,362	Aug. 21	1817	483	44	936
Faucet	K. H. Pedrick	384,866	June 19	1540	400	43	1430
Faucet	E. U. Scoville	378,020	Feb. 14	1020	266	42	706
Faucet	E. U. Scoville	383,995	June 5	230	67	43	1165
Faucet	C. F. Smith	387,014	July 31	2502	657	44	518
Faucet attachment	W. H. Tingle, L. Leibrock, and W. Seitz	389,614	Sept. 18	1240	325	44	1321
Faucet attachment for barrels	J. Paulus	382,186	May 1	449	117	43	596
Faucet. Filtering	W. H. McDonald	379,801	Mar. 20	1384	368	42	1246
Faucet. Filtering	W. H. Sargent	383,493	May 29	2425	644	43	1010
Faucet for wagon-tanks. Measuring	G. H. Perkins	394,391	Dec. 11	979	257	45	1268
Faucet. Liquid-measuring	H. M. Nye	376,254	Jan. 10	751	199	42	151
Faucet. Measuring	O. Martinson	377,165	Jan. 31	2086	549	42	431
Faucet. Registering	J. R. Wherry and H. H. Rottaken	386,419	July 17	1606	421	44	331
Faucet. Right and left hand stop and waste	W. Briggs	388,526	Aug. 28	2039	549	44	985
Faucet. Self-closing	T. McHugh	383,138	May 22	1889	492	43	903
Faucet. Self-closing	H. C. Montgomery	382,654	May 8	1180	305	43	745
Faucet-socket	G. J. Fox and A. Foerster	391,891	Oct. 30	2404	650	45	502
Faucet. Wooden	O. Knipfer	382,166	May 1	422	110	43	591
Faucets. Register attachment for	J. Werrek and W. F. Smith	391,288	Oct. 16	1559	414	45	315
Faucets. Registering attachment for measuring	L. P. White and J. D. Benson	384,805	June 19	1438	377	43	1412
Faucets. Registering device for measuring	J. A. Blondel	382,944	May 15	1574	411	43	833
Feather. Artificial	S. Roggenburger	389,411	Sept. 11	933	244	44	1257
Feather boas. Making	R. T. Déné	392,005	Oct. 30	2719	738	45	564
Feather product	P. M. Wilson and C. M. Hawkins	393,951	Dec. 4	316	86	45	1133
Feather renovator and sorter	H. O. Mooney	387,800	Aug. 14	903	234	44	752
Feathers. Machine for reducing	C. Wolff	388,517	Aug. 28	2026	545	44	983
Feed-bag	E. Willigerod and L. Neresheimer	376,570	Jan. 17	1190	315	42	243
Feed-box and end-gate. Combined	H. Gamble	379,569	Mar. 20	1040	277	42	1177
Feed-cutter	O. D. Brown	393,322	Nov. 20	1671	441	45	935
Feed-cutter	J. O. Holtzman	390,601	Oct. 2	560	148	45	113
Feed-cutter	M. Klima	392,925	Nov. 13	1095	284	45	814
Feed-cutter	O. C. Little	381,208	June 5	546	150	43	1227
Feed-cutter	E. W. Rider	378,112	Feb. 21	1151	300	42	730
Feed-cutter	G. F. Schmid	383,494	May 29	2426	644	43	1010
Feed-cutter	R. F. Vermillion	387,126	July 31	2674	699	44	548
Feed-cutter	W. E. Whitman	380,966	Apr. 10	1002	257	43	204
Feed device. Automatically-adjustable	C. J. Pilliod	383,145	May 22	1899	496	43	905
Feed-gate. Automatic	H. M. Whitney	388,164	Aug. 21	1507	401	44	875
Feed-house for animals	E. M. Crummer	390,652	Oct. 9	633	169	45	134
Feed-mill	T. C. Cadwgan	376,232	Jan. 10	720	192	42	148
Feed-mill	T. C. Cadwgan	380,180	Mar. 27	1960	523	42	1366
Feed-mill	G. D. Rowell	393,032	Nov. 20	1263	326	45	854
Feed-rack	A. Hall	390,667	Oct. 9	649	174	45	137
Feed-rack	G. W. Light	387,891	Aug. 14	1043	273	44	779
Feed-rack	G. W. Light	387,892	Aug. 14	1045	274	44	779
Feed-rack	D. F. Schwartz	390,250	Oct. 2	87	25	45	20
Feed-regulator	H. A. Barnard	379,193	Mar. 6	468	132	42	1055
Feed-regulator	G. R. Davidson	380,005	Mar. 27	1847	491	42	1343
Feed-regulator	S. M. and W. H. Gramlich	392,027	Oct. 30	2602	708	45	541
Feed-regulator	E. A. Hoover	384,443	June 12	898	234	43	1300
Feed-regulator	J. A. McAnulty	394,278	Dec. 11	807	214	45	1235
Feed-regulator. Boiler	W. O. Gunckel	394,569	Dec. 18	1258	329	45	1333
Feed-rolls. Means for operating	L. Kissner	380,579	Apr. 3	413	118	43	84
Feed-trough	R. Aitcheson	391,226	Oct. 16	1461	390	45	297
Feed-trough	W. Andrus	388,529	Aug. 28	2030	546	44	981
Feed-trough	G. D. Burton	391,580	Oct. 23	1957	528	45	403
Feed-trough	W. H. Garrett	384,357	June 12	781	204	43	1277
Feed-trough	C. Hollingsworth	385,756	July 10	642	166	44	133
Feed-trough	J. M. Hughes and A. P. W. Wade	388,493	Aug. 28	1997	537	44	977
Feed-trough	A. N. Main	378,603	Feb. 28	1881	497	42	887
Feed-trough	E. P. Newbanks	379,489	Mar. 13	914	246	42	1146
Feed-trough	E. P. Newbanks and J. Mahaffa	382,721	May 15	1274	334	43	772
Feed-trough	D. L. Spicher	378,942	Mar. 6	115	33	42	929
Feed-water apparatus for boilers. Automatic	M. Covel	376,472	Jan. 17	1058	277	42	217
Feed-water. Apparatus for purifying	W. Webster	390,927	Oct. 9	1021	270	45	207
Feed-water circulator	J. P. Kelly	394,312	Dec. 11	956	351	45	1264
Feed-water heater	W. C. Armstrong	386,735	July 24	2053	541	44	424
Feed water heater	W. M. Brown	391,686	Oct. 23	2093	567	45	431
Feed-water heater	T. Fairbanks	381,618	Apr. 24	1986	521	43	422
Feed-water heater	G. L. Hagarty	377,752	Feb. 14	608	156	42	624
Feed-water heater	J. T. Lee	391,375	Nov. 27	1752	464	45	959
Feed-water heater	E. F. Luthy	390,608	Oct. 2	567	151	45	114

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Feed-water heater.....	E. J. Moore.....	382,546	May 8	1015	259	43	712
Feed-water heater.....	W. Oliphant.....	384,538	June 12	1046	273	43	1327
Feed-water heater.....	R. F. Pratt and C. D. Wainwright..	388,916	Sept. 4	166	41	41	1104
Feed-water heater.....	R. F. Pratt and C. D. Wainwright..	393,483	Nov. 27	1921	503	45	990
Feed-water heater.....	P. Rohan.....	394,136	Dec. 4	555	157	45	1183
Feed-water heater.....	P. Rohan.....	394,137	Dec. 4	587	158	45	1183
Feed-water heater.....	W. H. Rushforth.....	391,389	Oct. 16	1697	449	45	340
Feed-water heater.....	W. H. Rushforth.....	391,390	Oct. 16	1698	449	45	340
Feed-water heater.....	D. W. Smith.....	387,329	Aug. 7	185	48	44	606
Feed-water heater.....	D. Stak.....	384,937	June 19	1632	424	43	1447
Feed-water heater.....	H. Vogt and R. H. Burns.....	394,526	Dec. 11	1170	301	45	1302
Feed-water heater.....	W. Webster.....	390,537	Oct. 2	480	136	45	97
Feed-water heater and filter.....	P. Rohan.....	387,686	Aug. 14	761	194	41	725
Feed-water heater and purifier.....	J. Miller.....	385,769	July 10	656	172	44	136
Feed-water heater and purifier.....	J. S. Phares.....	379,540	Mar. 13	985	265	42	1159
Feed-water heater. Coil.....	R. F. Pratt and C. D. Wainwright..	389,900	Sept. 25	1686	445	44	1416
Feed-water. Heating.....	L. Seligmann.....	392,073	Oct. 30	2671	726 727	45	554
Feed-water heating and filtering apparatus.....	W. Oliphant.....	384,540	June 12	1049	274	43	1328
Feed-water purifier.....	G. W. Allen and H. J. A. Bowers.....	379,671	Mar. 20	1188	314 315	42	1206
Feed-water purifier.....	E. G. T. Colles.....	378,495	Feb. 28	1732	457	42	858
Feed-water purifier.....	O. H. Jewell.....	377,386	Feb. 7	32	9	42	501
Feed-water purifier.....	O. H. Jewell.....	377,390	Feb. 7	37	11	42	502
Feed-water purifier.....	O. H. Jewell. (Reissue).....	10,963	Oct. 16	1707	453	45	344
Feed-water purifier.....	J. H. Kruse and L. A. Smith.....	387,425	Aug. 7	332	85	44	637
Feed-water regulator.....	F. Cook and B. Thoens.....	384,510	June 12	1006	262	43	1319
Feed-water regulator.....	F. Cook and B. Thoens. (Reissue).....	10,957	Sept. 4	586	149	44	1181
Feed-water regulator.....	F. Cook and B. Thoens.....	393,621	Nov. 27	2133	557	45	1034
Feed-water regulator.....	J. P. Lisk.....	394,929	Dec. 18	1868	483	45	1450
Feed-water regulator.....	F. E. Smith.....	387,457	Aug. 7	382	99	44	648
Feed-water regulator.....	W. Thompson.....	385,387	July 3	71	20	44	15
Feed-water regulator.....	J. W. Weaver.....	381,450	Apr. 17	1737	464	43	354
Feed-water regulator. Automatic.....	P. J. Duff.....	393,623	Nov. 27	2135	558	45	1035
Feeder. Automatic horse.....	P. Dodd and J. H. Thomas.....	378,909	Mar. 6	67	20	42	980
Feeder. Automatic shelf.....	W. M. Jewell. (Reissue).....	10,933	May 29	2951	781	43	1114
Feeding and watering hogs. Device for.....	T. B. Swan.....	376,489	Jan. 17	1087	285	42	223
Feeding bin and trough.....	J. T. Woods.....	378,536	Feb. 28	1785	471	42	860
Feeding device. Salt.....	C. Lindner and T. F. Hammer.....	382,048	May 1	859	67	43	561
Feeding salt to live stock. Device for.....	W. H. Burger.....	376,360	Jan. 10	295	235	42	180
Felly-clip.....	J. Higgins and J. Sullivan.....	386,983	July 31	2458	646	44	510
Felly-iron.....	E. E. Renshaw.....	392,637	Nov. 13	681	170	45	731
Felly-plates for carriage-wheels. Die for making.....	J. G. English.....	392,110	Oct. 30	2744	746	45	569
Felt goods. Device for hardening.....	J. and D. Pendergast.....	390,094	Sept. 25	1971	525	44	1474
Felt or felted articles. Steam-box used in making.....	A. A. Hawley.....	384,042	Apr. 10	1074	285	43	217
Felt or other like articles. Pouncing or finishing of.....	H. G. Wolcott.....	394,747	Dec. 18	1547	404 405	45	1390
Felted foot-wear.....	A. A. Hawley.....	379,220	Mar. 13	523	147	42	1071
Feltiog. Preparing animal-hairs for.....	M. J. A. Dargelos.....	390,348	Oct. 2	215		45	45
Fence.....	E. T. Alber.....	386,372	July 17	1523	403	44	311
Fence.....	J. A. Barber.....	394,241	Dec. 11	752	198	45	1223
Fence.....	C. C. Bargdill.....	383,335	May 22	2165	572	43	955
Fence.....	J. F. Bazill.....	378,425	Feb. 28	1622	426 427	42	834
Fence.....	D. Boyd.....	388,816	Sept. 4	12	4	41	1075
Fence.....	J. Bright.....	388,338	Aug. 21	1772	472	44	928
Fence.....	W. A. Bryant.....	391,353	Oct. 16	1644	435	45	330
Fence.....	A. R. Buchanan.....	389,286	Sept. 11	754	191	44	1224
Fence.....	J. B. Cleveland.....	392,948	Nov. 13	1129	293	45	820
Fence.....	A. B. Culp.....	384,564	June 12	1084	283	43	1334
Fence.....	W. H. Dungan.....	391,033	Oct. 16	1206	320	45	248
Fence.....	R. B. Eubank, Jr.....	377,672	Feb. 7	45	125	42	587
Fence.....	J. M. Fellows.....	391,132	Oct. 16	1340	357	45	273
Fence.....	J. A. Flanagan.....	376,646	Jan. 17	1326	348	42	268
Fence.....	N. W. French.....	381,496	Apr. 17	1803	479	43	368
Fence.....	W. A. Frushour.....	378,832	Feb. 28	2229	593	42	954
Fence.....	R. W. Fuller.....	393,504	Nov. 27	1947	509	45	996
Fence.....	W. I. F. Harden.....	388,132	Aug. 21	1451	390	41	866
Fence.....	J. A. Harnsberger.....	389,649	Sept. 18	1303	341	44	1332
Fence.....	J. Harris.....	382,806	May 15	1390	365	43	795
Fence.....	D. S. Hartwell.....	380,034	Mar. 27	1760	471	42	1325
Fence.....	O. D. Hearn.....	378,312	Feb. 21	1161	381	42	795
Fence.....	J. Higgins and J. Sullivan.....	392,334	Nov. 6	228	59	45	634
Fence.....	T. Houck.....	382,233	May 1	518	133	43	609
Fence.....	D. Howard and S. W. Ward.....	390,971	Oct. 9	1097	229	45	220
Fence.....	D. Hyre.....	392,733	Nov. 13	1823	269	45	759
Fence.....	W. Kelly.....	378,793	Feb. 28	2145	567	42	937
Fence.....	I. L. Landis.....	379,706	Mar. 20	1241	330	42	1217
Fence.....	J. P. Lencin.....	379,279	Mar. 13	601	165	42	1065
Fence.....	A. Lott.....	377,682	Feb. 7	503	129	42	590
Fence.....	C. S. Martindale.....	393,167	Nov. 20	1441	376	45	889
Fence.....	H. Mater.....	382,178	May 1	440	115	43	594
Fence.....	D. B. Matlock.....	385,466	July 3	198	52	44	40
Fence.....	D. B. Matlock.....	385,467	July 3	199	52	44	40
Fence.....	M. Maxam.....	393,168	Nov. 20	1442	376	45	889
Fence.....	P. Miles.....	381,942	May 1	62	16	43	526
Fence.....	B. Miller.....	375,828	Jan. 3	137	40	42	32
Fence.....	B. F. Newcomb.....	390,166	Sept. 25	2105	561	44	1501
Fence.....	J. S. Orr.....	384,270	June 12	641	173	43	1253
Fence.....	A. J. and G. W. Pitts.....	382,382	May 8	763	194	43	664
Fence.....	O. E. H. N. Reichling.....	387,107	July 31	2627	691	44	512
Fence.....	H. Richwine.....	380,457	Apr. 3	224	61	41	46
Fence.....	N. Shadistall.....	388,725	Aug. 28	2329	627	44	1040
Fence.....	G. E. Shelley.....	380,529	Apr. 3	335	96	43	68

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Fence .....	J. Shilling .....	393,081	Nov. 20	1323	345	45	865
Fence .....	J. Sjöström .....	387,116	July 31	2643	{ 695 696 }	44	545
Fence .....	F. Slack .....	376,556	Jan. 17	1173	309	42	239
Fence .....	J. Z. Stanley .....	381,858	Apr. 24	2344	608	43	489
Fence .....	J. L. Symonds .....	390,995	Oct. 9	1129	298	45	226
Fence .....	W. M. Tipton .....	390,268	Oct. 2	98	28	45	23
Fence .....	W. Van Horn .....	376,218	Jan. 10	702	187	42	144
Fence .....	Q. D. Wilcoxson .....	391,569	Oct. 23	1938	523	45	399
Fence .....	C. E. Wilson .....	382,629	May 8	1139	294	43	737
Fence .....	F. E. Wood .....	381,047	Apr. 10	1131	302	43	228
Fence. Barb-wire .....	J. W. Griswold .....	380,388	Apr. 3	124	36	43	26
Fence. Barbed .....	C. A. Hodge .....	392,433	Nov. 6	379	94	45	665
Fence. Barbed .....	O. Huffman .....	380,573	Apr. 3	405	116	43	82
Fence-building apparatus .....	F. P. Chamberlin .....	376,512	Jan. 17	1118	292	42	229
Fence-building apparatus. Wire .....	J. A. Hooton and G. L. Wiard .....	388,974	Sept. 4	249	66	44	1119
Fence clasp and wedge. Wire .....	N. W. French .....	392,506	Nov. 6	484	121	45	687
Fence coupler and tightener, and slackener and opener. Wire .....	G. W. Worth .....	392,299	Nov. 6	173	45	45	626
Fence. Flood .....	E. B. Atkinson .....	392,709	Nov. 13	780	198	45	751
Fence. Flood .....	C. Herring .....	387,072	July 31	2582	679	44	533
Fence. Flood .....	H. A. Mace .....	377,037	Jan. 31	1902	500	42	393
Fence-gate .....	A. Shepherd .....	384,793	June 19	1420	372	43	1409
Fence. Hedge .....	A. T. Culbertson .....	393,096	Nov. 20	1346	351	45	870
Fence. Hedge .....	J. H. Racer .....	384,713	June 19	1311	342	43	1386
Fence. Iron .....	W. H. Coker .....	383,343	May 22	2178	576	43	958
Fence. Iron .....	S. B. Husselman .....	383,296	May 22	2119	559	43	947
Fence. Iron .....	O. G. Vanderhoof .....	386,567	July 24	1830	483	44	382
Fence-machine .....	C. F. Bartling .....	392,981	Nov. 20	1191	{ 309 310 }	45	839
Fence-machine .....	W. H. Belles .....	392,001	Oct. 30	2565	696	45	533
Fence-machine .....	W. A. Clary .....	387,860	Aug. 14	990	238	44	770
Fence-machine .....	S. Conrath .....	384,235	June 12	592	161	43	1245
Fence-machine .....	I. N. Elliott and P. A. Reid .....	376,124	Jan. 10	651	{ 174 175 }	42	136
Fence-machine .....	S. H. Garrett .....	376,521	Jan. 17	1132	296	42	231
Fence-machine .....	W. C. Gholson .....	379,458	Mar. 13	803	233	42	1136
Fence-machine .....	C. F. Gillet .....	385,304	June 26	2268	{ 566 567 }	43	1572
Fence-machine .....	A. V. Harper .....	382,526	May 8	981	247	43	705
Fence-machine .....	A. Jones .....	391,897	Oct. 30	2412	653	45	504
Fence-machine .....	A. J. Neff .....	390,309	Oct. 2	129	42	45	33
Fence-machine .....	W. Peepers .....	388,503	Aug. 28	2008	540	44	979
Fence-machine .....	F. A. Rickard and F. T. Wright .....	379,541	Mar. 13	987	265	42	1160
Fence-machine .....	T. J. Smith .....	378,378	Feb. 21	1550	405	42	814
Fence-machine .....	F. Van Doren and L. Lovejoy .....	379,426	Mar. 13	816	{ 219 220 }	42	1127
Fence-machine .....	T. F. Vandegrift and A. L. Maplo .....	383,785	May 29	2857	752	43	1096
Fence-machine .....	S. J. White .....	393,732	Nov. 27	2286	600	45	1065
Fence-machine .....	J. M. Wright .....	389,129	Sept. 4	492	126	44	1164
Fence. Machine for swaging together the parts of an iron picket .....	A. J. Meyer .....	379,321	Mar. 13	666	{ 180 181 }	42	1097
Fence-machine. Hand .....	M. F. Connett, Jr. ....	376,514	Jan. 17	1122	293	42	229
Fence-machine. Hand .....	B. Current .....	378,873	Mar. 6	26	7	42	971
Fence machine. Picket .....	F. W. Kelly .....	391,851	Oct. 30	2348	637	45	490
Fence machine. Picket .....	G. W. Odell and H. G. Hopper .....	390,983	Oct. 9	1112	{ 293 294 }	45	223
Fence machine. Picket .....	E. Smith .....	392,887	Nov. 13	1045	270	45	805
Fence machine. Picket .....	E. J. Youngs .....	390,739	Oct. 9	754	{ 197 198 }	45	156
Fence machine. Slat-and-wire .....	G. W. Packer .....	377,327	Jan. 31	2323	{ 674 675 }	42	474
Fence machine. Wire .....	J. and C. Lane .....	389,751	Sept. 18	1450	380	44	1362
Fence machine. Wire .....	J. W. Roberts .....	387,108	July 31	2628	{ 691 692 }	41	542
Fence machine. Wire-and-picket .....	W. Dixon .....	378,777	Feb. 28	2123	561	42	933
Fence-machines. Attachment for .....	W. H. H. Fauber .....	376,645	Jan. 17	1325	348	42	268
Fence-machines. Tension device for .....	D. E. Miller .....	392,684	Nov. 13	745	189	45	743
Fence-making machine .....	E. Blodgett .....	389,540	Sept. 18	1115	294	44	1299
Fence-making machine .....	L. T. Curtis .....	388,400	Aug. 28	1871	500	44	952
Fence-making machine .....	A. K. Degood .....	388,643	Aug. 28	2208	594	44	1018
Fence-making machine .....	M. T. Greenleaf .....	388,355	Aug. 21	1790	{ 478 479 }	44	932
Fence-making machine .....	T. H. Hoberling and A. Bernauer .....	377,756	Feb. 14	611	{ 157 158 159 }	42	624
Fence-making machine .....	S. L. Kline .....	379,791	Mar. 20	1365	363	42	1241
Fence-making machine .....	P. Miles .....	389,590	Sept. 18	1202	{ 314 315 316 }	44	1314
Fence-making machine .....	J. Zengcl .....	388,610	Aug. 28	2161	580	44	1009
Fence-making machine. Power .....	E. E. Witter .....	394,631	Dec. 18	1357	{ 355 356 }	45	1351
Fence-making machine. Upright wire-and-picket .....	M. Hill and J. N. Rider .....	381,548	Apr. 24	1884	497	43	401
Fence making. Tension device for use in wire .....	A. Richardson .....	390,617	Oct. 2	579	154	45	116
Fence. Metallic .....	G. H. Guile .....	383,222	May 22	2005	526	43	927
Fence or guard .....	J. Norwood .....	386,083	July 10	1094	293	44	223
Fence. Picket and barbed .....	J. Locher .....	388,780	Aug. 28	2410	650	44	1055
Fence-pickets. Machine for sawing .....	S. D. Riegel .....	386,035	July 10	1027	273	44	210
Fence. Portable .....	E. Demuth .....	388,644	Aug. 28	2210	594	44	1018
Fence. Portable .....	S. Hobson .....	394,361	Dec. 11	938	247	45	1261
Fence. Portable .....	M. C. Margeson .....	383,475	May 29	2394	637	43	1004
Fence. Portable .....	P. M. Mishler .....	391,632	Oct. 23	2026	548	45	417
Fence. Portable .....	P. Newby .....	376,337	Jan. 10	865	227	42	175



## Alphabetical list of inventions.—Continued.

Invention.	Name.	No.	Date.	Monthly Volume.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Fence. Portable.	A. Shrader.	385,531	July 3	300	77	41	61
Fence. Portable.	R. T. Smith and D. F. Shipley.	392,830	Nov. 13	910	249	45	788
Fence. Portable.	A. Wheat.	381,366	Apr. 17	1569	406	43	310
Fence-post.	J. W. Davy.	381,873	Apr. 24	2366	615	43	494
Fence-post.	N. Enslinger.	390,215	Oct. 2	35	9, 10	45	9
Fence-post.	S. W. Fulton.	382,256	May 1	559	141	43	616
Fence-post.	P. Geary.	391,363	Oct. 16	1658	439	45	333
Fence-post.	J. W. Griswold.	378,051	Feb. 14	1061	278	42	714
Fence-post.	J. W. Griswold.	391,790	Oct. 30	2248	612	45	471
Fence-post.	M. B. Grove.	394,973	Dec. 25	1941	500	45	1431
Fence-post.	G. E. Hamilton.	394,266	Dec. 11	791	210	45	1231
Fence-post.	L. B. Harmon and J. N. Nutt.	380,627	Apr. 3	478	135	43	97
Fence-post.	S. D. Harmon and J. M. Terrell.	379,109	Mar. 6	365	104	42	1034
Fence-post.	W. Helfenberger, G. W. and C. M. Kiler.	394,854	Dec. 18	1740	451	45	1427
Fence-post.	L. W. Lindley.	382,992	May 15	1639	429	43	845
Fence-post.	C. S. Long.	387,085	July 31	2385	681	44	536
Fence-post.	J. M. Madding and B. F. Watson.	390,495	Oct. 2	422	109	45	86
Fence-post.	S. J. Saxon and W. H. James.	391,198	Oct. 16	1432	383	45	292
Fence-post.	R. R. Speere.	388,086	Aug. 21	1356	365	44	849
Fence-post.	J. Wren.	391,395	Oct. 16	1706	453	45	343
Fence-post and brace. Combined.	S. Williamson, Sr.	380,270	Mar. 27	2081	557	42	1391
Fence-post base.	C. S. Long.	387,084	July 31	2595	683	44	536
Fence-post. Metallic.	L. D. Miller.	377,323	Jan. 31	2317	672	42	473
Fence-post. Metallic.	H. C. Tucker.	391,869	Oct. 30	2371	644	45	496
Fence-post or pile-driving machine.	J. W. Tate and B. F. Dixon.	391,823	Oct. 30	2307	625 626	45	483
Fence-post. Stub.	J. Mahon.	385,418	July 3	127	34	44	27
Fence-posts. Device for tightening.	L. Brooks.	376,468	Jan. 17	1053	276	42	217
Fence. Stake-and-rail.	A. O. Morgan.	394,874	Dec. 18	1767	458	45	1432
Fence stay-binder. Wire.	E. P. Newbanks and J. Shivar.	387,691	Aug. 14	753	192	44	723
Fence stay. Wire.	L. W. Lindley.	386,019	July 10	1006	267	44	205
Fence-strip. Barbed.	C. J. Grelmer.	386,742	July 24	2067	544	44	426
Fence tightener. Wire.	G. Tenney.	386,666	July 24	1963	518	44	408
Fence tightener. Wire.	E. Warner.	390,046	Sept. 25	1895	500	41	1458
Fence-weaving machine.	G. J. Cline.	379,100	Mar. 6	351	100	42	1032
Fence web. Wire.	G. V. S. and V. F. Rickards and H. Guyer.	386,720	July 24	2035	535	44	421
Fence web. Wire.	G. V. S. and V. F. Rickards and H. Guyer.	386,721	July 24	2035	535	44	421
Fence. Wire.	J. J. Buchanan.	384,016	June 5	256	73	43	1171
Fence. Wire.	P. C. Freese.	383,804	May 29	2896	764	43	1103
Fence. Wire.	T. Griffin and W. Mitchell.	387,413	Aug. 7	313	80	44	632
Fence. Wire.	E. C. Jones.	394,773	Dec. 18	1602	421	45	1402
Fence. Wire.	J. King.	377,524	Feb. 7	268	67, 68	42	546
Fence. Wire.	B. Scarles.	385,729	July 10	593	154	44	123
Fence. Wire.	B. Scarles.	388,311	Aug. 21	1732	463	44	921
Fence. Wire.	B. Scarles.	388,450	Aug. 28	1939	519	41	966
Fence. Wire.	B. Scarles.	388,451	Aug. 28	1940	519	41	966
Fence. Wire.	B. Scarles.	390,257	Oct. 2	85	21	45	20
Fence-wire. Machine for splicing.	A. De Witt.	393,423	Nov. 27	1621	480	45	972
Fence-wire reel.	A. De Witt.	391,404	Oct. 23	1718	457	45	352
Fence-wire stretcher.	J. F. Warner.	390,272	Oct. 2	102	29	45	24
Fence-wire twister.	J. M. Borer.	388,175	Aug. 21	1524	466	44	878
Fences. Barbed-wire chain for.	J. J. Benson.	391,502	Oct. 23	1852	496	45	380
Fences. Clamp for wire-and-picket.	A. Pickett.	376,299	Jan. 10	808	213	42	164
Fences. Lightning-escape for wire.	A. Cockrell.	385,695	June 26	1889	482	43	1509
Fences. Machine for constructing.	J. M. Mangold.	393,651	Nov. 27	2179	571	45	1041
Fences. Machine for making picket.	J. C. Haug.	380,482	Apr. 3	255	70	43	52
Fences. Machine for making picket.	E. E. Witter.	389,784	Sept. 18	1491	393 394	44	1371
Fences. Making combined wire-and-picket.	W. X. Stevens.	383,082	May 15	1701	442	43	857
Fences. Mold for earth.	L. Barton.	376,936	Jan. 24	1764	464	42	350
Fences. Stay for wire.	L. W. Connell.	386,770	July 24	2105	533	44	434
Fences. Tension device for use in making.	W. A. Farr.	382,464	May 8	887	226	43	687
Fencing. Barb for wire.	W. H. Redden.	379,729	Mar. 20	1273	340	42	1223
Fencing. Machine for making barbed.	E. Jordan and J. H. Templin.	390,975	Oct. 9	1100	250 291	45	220
Fencing. Machine for making wire-and-picket.	J. F. Russell.	394,082	Dec. 4	505	135	45	1168
Fencing. Making barbed.	E. Jordan.	389,154	Sept. 4	539	135	44	1172
Fencing. Wire.	C. Shaw.	386,270	July 17	1590	366	44	285
Fender.							
See Cultivator-fender. Horse-rake fender.							
Fire-place fender. Plow-fender.							
Fender.	H. Howe.	377,074	Jan. 31	1961	515	42	405
Fender and andiron.	T. Hipwell.	390,020	Sept. 25	1849	490	44	1449
Ferrule.	F. Latulip.	392,957	Nov. 13	1144	297	45	823
Ferrule for umbrellas, &c.	W. M. Jackson.	392,271	Nov. 6	137	34	45	620
Ferrule for umbrellas, canes, &c.	O. M. Smith.	383,378	May 22	2227	591	43	966
Ferrules for cant-books. Making.	E. Mansfield.	377,038	Jan. 31	1903	500	42	393
Ferrules. Making cant-hook.	E. Mansfield.	383,135	May 22	1886	492	43	903
Ferry-boat.	J. Steen.	392,079	Oct. 30	2681	730	45	556
Fertilizer.	S. L. Goodale.	382,604	May 8	1107	43	731	
Fertilizer.	P. C. Jensen.	378,688	Feb. 28	2009	42	912	
Fertilizer-distributor.	A. J. Baugh.	385,990	July 10	970	258	44	198
Fertilizer-distributor.	S. H. Cottrell.	376,731	Jan. 24	1453	382 383	42	301
Fertilizer-distributor.	J. M. Howell, Jr.	393,907	Dec. 4	259	70	45	1121
Fertilizer-distributor.	E. P. Johnston.	394,369	Dec. 11	951	249	45	1263
Fertilizer-distributor.	J. H. Malaier and E. J. Smith.	389,754	Sept. 18	1452	380	44	1363
Fertilizer-distributor.	H. O. Peabody.	375,768	Jan. 3	64	19, 20	42	16
Fertilizer-distributor.	W. W. Turnipseed.	388,511	Aug. 28	2019	542	44	981
Fertilizers. Apparatus for.	S. V. Mills.	394,708	Dec. 18	1480	386	45	1375

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Fertilizers. Machine for distributing.....	J. R. McCord.....	377,166	Jan. 31	2088	549.	42	431
Fertilizing composition.....	G. H. Murray.....	377,084	Jan. 31	1982		42	409
Fetter-lock.....	W. Moran.....	390,503	Oct. 2	435	112	45	88
Fiber-dusting machine.....	F. G. Sargent.....	394,017	Dec. 4	411	110 111	45	1150
Fibers and fabrics. Scouring composition for.....	C. Toppa.....	381,444	Apr. 17	1730		43	353
Fibers of plants. Machine for washing out the.....	C. Jobson.....	384,851	June 19	1518	395	43	1426
Fibrous substances. Machine for opening and preparing.....	A. Clarke and H. C. Perham.....	380,187	Mar. 27	1971	527	42	1368
Fibrous ware. Treating.....	H. Carmichael.....	377,928	Feb. 14	887		42	680
Field-roller.....	J. S. Weekman.....	387,468	Aug. 7	398	104	44	650
Fifth-wheel.....	W. E. Bendler.....	393,056	Nov. 20	1295	336	45	860
Fifth-wheel.....	W. W. Grier.....	384,758	June 19	1370	359	43	1309
Fifth-wheel.....	J. G. and L. H. Huff.....	388,201	Aug. 21	1561	415	44	886
Fifth-wheel.....	G. A. Lane.....	389,578	Sept. 18	1180	309	44	1310
Fifth-wheel.....	F. Linco.....	384,632	June 19	1187	313 314	43	1362
Fifth-wheel.....	R. D. and J. B. Morgan.....	376,775	Jan. 24	1537	404	42	317
Fifth-wheel.....	H. M. Oliver.....	391,914	Oct. 30	2438	650	45	510
Fifth-wheel.....	H. W. Ransom.....	392,825	Nov. 13	962	247	45	787
Fifth-wheel.....	W. E. Rothwell.....	383,323	May 22	2153	568	43	953
Fifth-wheel.....	W. H. Stickle.....	391,343	Oct. 16	1628	431	45	328
Fifth-wheel.....	E. Storm.....	390,042	Sept. 25	1889	498	44	1457
Fifth-wheel for vehicles.....	W. Blume.....	376,178	Jan. 10	645	172	42	135
Fifth-wheel for vehicles.....	R. D. Criswell.....	394,912	Dec. 18	1843	478	45	1446
Fifth-wheel for vehicles.....	C. Thompson.....	395,017	Dec. 25	2002	516	45	1485
Fifth-wheel. Vehicle.....	E. E. Davis.....	380,868	Apr. 10	850	230	43	175
Fifth-wheel. Vehicle.....	P. Doersom.....	378,240	Feb. 21	1354	357	42	776
File and binder. Letter.....	B. Lawrence.....	388,421	Aug. 28	1899	507	44	957
File. Bank-check.....	F. A. Jacob, W. M. and L. H. Levy.....	385,415	July 3	124	33	44	26
File. Bill.....	C. C. Chamberlain.....	376,140	Jan. 10	572	158	42	124
File. Bill.....	C. C. Chamberlain.....	383,850	June 5	15	5	43	1124
File. Bill.....	S. Ely.....	376,185	Jan. 10	654	175	42	136
File. Bill.....	E. L. Matthews.....	382,716	May 15	1268	332	43	771
File. Bill.....	E. L. Matthews. (Reissue).....	10,948	July 24	2149	564	44	442
File. Bill and letter.....	P. Meyer.....	390,133	Sept. 25	2026	539	44	1485
File. Bill-book.....	F. M. Stone.....	382,497	May 8	935	237	43	696
File-box.....	E. E. Baker.....	378,062	Feb. 14	1075	282	42	717
File-box.....	H. A. Curtis.....	386,058	July 10	1060	283	44	217
File-box.....	W. R. Kinnear.....	391,751	Oct. 23	2185	569	45	449
File-box. Suspension.....	M. R. Jewell.....	380,490	Apr. 3	268	74	43	55
File cabinet. Letter.....	J. F. Atherton.....	395,197	Dec. 25	2288	5-8	45	1537
File-case.....	W. P. Altfather.....	386,952	July 31	2412	624	44	500
File-case.....	W. R. Kinnear.....	391,752	Oct. 23	2186	590	45	449
File-cases. Receptacle for.....	C. L. Wundt.....	380,009	Mar. 27	1724	462	42	1319
File-cutting machine.....	R. Denison.....	384,133	June 5	429	119 120 510 511 512	43	1204
File-cutting machine.....	J. F. French.....	390,075	Sept. 25	1934	513 514 515 516 517	44	1466
File-cutting machines. Chisel-holder for.....	H. Michel.....	390,793	Oct. 9	828	221	45	170
File for letters, &c.....	W. A. Cooke, Jr.....	379,367	Mar. 13	732	200	42	1110
File for letters.....	H. E. Hesseltime.....	394,981	Dec. 25	1956	504	45	1476
File for letters, bills, papers, &c.....	W. A. Jr., and C. S. Cooke.....	378,669	Mar. 6	15	4	42	970
File for letters, papers, &c. Office.....	F. Gazeley.....	381,360	Apr. 17	1596	427	43	327
File-handle.....	C. J. Frankard.....	390,660	Apr. 3	528	145	43	106
File-holder.....	H. C. Yeiser.....	378,072	Feb. 14	1087	286	42	720
File-holder. Paper.....	L. Banks.....	379,846	Mar. 20	1466	387	42	1259
File. Letter.....	W. S. Barnard.....	384,601	June 19	1111	301	43	1353
File. Letter.....	G. F. Chappell.....	379,049	Mar. 6	271	80	42	1017
File. Newspaper.....	W. K. Crofford.....	380,216	Mar. 27	2054	549	42	1385
File or book holder.....	J. H. Ferguson.....	394,258	Dec. 11	779	206	45	1228
File or other rack. Revolving adjustable paper.....	C. H. Dexter.....	385,689	July 10	549	143	44	114
File. Paper.....	T. W. G. Cook.....	379,860	Mar. 20	1562	395	42	1267
File. Paper.....	L. L. Ferris.....	392,419	Nov. 6	3 8	88, 89	45	662
File. Paper.....	L. E. Heitling.....	390,596	Oct. 2	556	147	45	112
File. Paper.....	G. P. Herndon.....	381,159	June 5	472	130	43	1212
File. Paper.....	M. R. Jewell.....	384,168	June 5	485	133	43	1215
File. Paper.....	A. C. A. Perkes.....	392,750	Nov. 13	841	215	45	764
File. Paper.....	H. Rung.....	387,600	Aug. 7	621	161	44	691
File. Paper.....	P. J. Schlicht.....	389,530	Sept. 11	1097	290	41	1288
File. Paper.....	A. B. Sherwood.....	381,959	May 1	85	21	43	531
File. Paper and letter.....	W. Cooper.....	384,892	June 19	1574	409	43	1436
File. Paper or bill.....	A. J. Wells.....	386,673	July 24	1971	520	44	410
File. Paper or bill.....	A. J. Wells.....	386,674	July 24	1972	520	44	410
File. Paper or bill.....	A. J. Wells.....	386,675	July 24	1974	521	44	410
File-receptacle.....	A. L. Brown.....	379,678	Mar. 20	1197	317	42	1267
Files and similar tools. Handle attachment for.....	D. Harkins.....	388,197	Aug. 21	1555	413	44	885
Files. Machine for cutting.....	C. M. Fairbanks.....	380,751	Apr. 10	668	185	43	142
Files. Manufacture of.....	W. Watmore.....	383,547	May 29	2511	662	43	1025
Filing away printed clippings, &c. Device for.....	C. W. Taylor.....	393,455	Nov. 27	1865	491	45	921
Filing-case.....	B. H. Morgan.....	388,498	Aug. 28	2003	538	44	978
Filing case and drawer.....	H. J. Hoffman.....	382,675	May 15	1476	388	43	813
Filing papers.....	J. M. Junkin.....	385,758	July 10	641	167	44	133
Filing-receptacle.....	A. L. Brown.....	379,560	Mar. 20	1019	273	42	1174
Filing-receptacle.....	A. L. Brown.....	386,451	July 21	1654	436	44	349
Filling, lining, and covering material.....	H. W. Johns.....	385,120	June 26	1926	491	43	1516

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Filter	R. Arnold	386,421	July 17	1608	422	44	331
Filter	C. Birkery	385,440	July 3	162	44	44	33
Filter	F. W. Brownlow	388,017	Aug. 21	1246	338	44	829
Filter	T. Clarke and J. E. Conroy	378,431	Feb. 28	1637	430	42	837
Filter	E. Fretz and J. Waespi	392,323	Nov. 6	212	55	45	635
Filter	J. P. Gruber	388,863	Sept. 4	89	24	41	1090
Filter	M. McDonald	381,406	Apr. 17	1663	445	43	341
Filter	J. J. McTighe	391,328	Oct. 16	1609	426	45	324
Filter	P. Müller	395,291	Dec. 25	2433	626	45	1565
Filter	J. Timmons	380,149	Mar. 27	1922	512	42	1358
Filter	J. E. Warren	379,349	Mar. 13	700	190	42	1104
Filter	F. K. Way	385,333	June 26	2254	577	43	1581
Filter	F. K. Way	388,162	Aug. 21	1505	401	44	874
Filter	D. Wise	386,909	July 31	2354	618	44	489
Filter and cake-press. Combined	J. Kroog	387,594	Aug. 7	611	159	44	683
Filter and purifier. Water	O. H. Jewell	377,387	Feb. 7	33	10	42	501
Filter and purifier. Water	O. H. Jewell	377,388	Feb. 7	34	10	42	502
Filter attachment for cistern-pumps	J. A. Cybert	393,820	Dec. 4	122	34	45	1096
Filter. Automatic stationary water	W. Witthoef, Jr.	389,089	May 15	1816	475	43	878
Filter-beds. Apparatus for cleaning	G. H. Moore	395,070	Dec. 25	2074	536	45	1501
Filter. Centrifugal	R. L. DeLisser	387,865	Aug. 14	998	260	44	772
Filter. Coffee	C. A. Shaw and L. W. Buxton	383,916	June 5	106	31	43	1141
Filter-emp. Porous	J. W. Hyatt	382,649	May 8	1173	303	43	744
Filter. Oil	L. C. Atwood	390,149	Sept. 25	2048	547	44	1490
Filter. Oil	C. F. Baker	392,092	Oct. 30	2715	738	45	564
Filter. Oil	G. W. Gallaway	388,550	Aug. 28	2070	557	44	991
Filter-press	J. Brock and T. Minton	390,558	Oct. 2	510	134	45	102
Filter-press	L. A. Enzinger	393,633	Nov. 27	2145	561	45	1038
Filter-press	A. Heberer	381,369	Apr. 17	1609	430	43	336
Filter-presses. Appliance for locking	J. Kroog	379,518	Mar. 13	958	258	42	1154
Filter. Rotary or oscillating	J. W. Hyatt	376,095	Jan. 10	518	138	42	111
Filter. Self-cleansing	F. Treheau	387,607	Aug. 7	628	163	44	693
Filter. Sugar-cane-juice	O. Wells and S. Johnstone	389,427	Sept. 11	950	249	44	1261
Filter. Water	F. Buchhorn	375,798	Jan. 3	102	30	42	24
Filter. Water	H. W. Grelle	381,067	Apr. 10	1167	310	43	235
Filter. Water	J. B. Ziegler	391,290	Oct. 16	1563	415	45	315
Filters. Apparatus for feeding chemicals to	O. H. Jewell	377,758	Feb. 14	616	159	42	625
Filtering beer	H. Stockheim	378,379	Feb. 21	1551	406	42	814
Filtering-machine	J. A. Crocker	395,038	Dec. 25	2029	524	45	1491
Finger-bar	L. D. Minnick	388,705	Aug. 28	2303	619	44	1035
Finger-ring	D. Kutner	394,928	Dec. 18	1867	483	45	1450
Finger-ring	J. B. Newman	392,357	Nov. 6	268	69	45	645
Finger-ring	W. P. Sinnock	385,073	June 26	1862	475	43	1503
Finger-ring. Initial	W. R. Duntley	382,758	May 15	1321	347	43	782
Finger-ring or other article of jewelry	H. Lehr	391,057	Oct. 16	1238	329	45	254
Finger-shield	A. Ahlquist	388,519	Aug. 28	2030	546	44	983
Fire-alarm	J. W. See	377,501	Feb. 7	236	57, 58	42	540
Fire-alarm	C. H. Shaffer	390,192	Sept. 25	2111	563	44	1502
Fire-alarm	J. West	378,990	Mar. 6	189	52	42	1002
Fire-alarm and telephone-telegraph. Combined	G. C. Hale, A. Barrett, and J. Zentner	392,604	Nov. 13	634	159	45	722
Fire-alarm annunciator	W. A. Barnes	395,111	Dec. 25	2144	553	45	1514
Fire-alarm apparatus. Auxiliary	W. J. Dndley	387,585	Aug. 7	596	156	44	683
Fire-alarm apparatus. Electric	G. M. Stevens	384,875	June 19	1556	404	43	1432
Fire-alarm. Automatic	A. Watson	395,096	Dec. 25	2119	548	45	1509
Fire-alarm. Automatic	J. Young	382,788	May 15	1370	359	43	791
Fire-alarm box. Auxiliary	E. L. Slocum	392,641	Nov. 13	685	171	45	732
Fire-alarm circuit	J. P. Barrett	376,133	Jan. 10	580	155	42	122
Fire-alarm circuits. Fnsible coupling for electric	G. G. Smith	383,377	May 22	2226	591	43	966
Fire-alarm circuits. Magneto-generator for	W. L. Debio	394,839	Dec. 18	1714	444	45	1422
Fire-alarm signal-box	A. A. Smith	378,983	Mar. 6	172	49	42	1000
Fire-alarm signal-box	G. M. Stevens	379,339	Mar. 13	688	186	42	1102
Fire-alarm signal-box. Electric	S. A. Chase	388,631	Aug. 28	2191	589	44	1014
Fire-alarm signal-boxes. Key-hole guard for	H. Smith	380,357	Apr. 3	81	25	43	19
Fire-alarm-signal circuit	W. Carroll	382,253	May 1	554	140	43	615
Fire-alarm system	T. G. Turner	389,678	Sept. 18	1347	353	44	1341
Fire-alarm system. Automatic	J. Young	381,896	Apr. 24	2403	625	43	503
Fire-alarm systems. Conductor for electrical	W. A. Barnes	378,078	Feb. 21	1101	288	42	730
Fire-alarms. Thermal circuit-closer for	H. S. Petit and H. S. Bresson	388,505	Aug. 28	2011	540	44	980
Fire and burglar alarm	R. J. La Rue	378,323	Feb. 21	1474	385	42	798
Fire and burglar alarm. Combined	W. B. Murray	388,216	Aug. 21	1581	421	44	890
Fire and burglar alarm. Electric	A. Schnichman	381,852	Apr. 24	2336	606	43	488
Fire and burglar alarm system	W. A. Barnes	380,241	Mar. 27	2046	517	42	1384
Fire-arm	M. Bye	375,799	Jan. 3	103	30	42	24
Fire-arm	E. S. Field and S. K. Hindley	391,953	Oct. 30	2493	675	45	520
Fire-arm	B. Hemming	377,854	Feb. 14	780	199	42	658
Fire-arm. Breech-loading	M. Bye	378,355	Feb. 21	1522	398	42	808
Fire-arm. Breech-loading	E. A. Harris	394,691	Dec. 18	1459	381	45	1371
Fire-arm. Breech-loading	F. G. D. Holmes	380,682	Apr. 10	575	158	43	125
Fire-arm. Breech-loading	I. Johnson and A. Fyrberg	391,155	Oct. 16	1372	366	45	279
Fire-arm. Breech-loading	T. Perkes	392,457	Nov. 6	420	104	45	673
Fire-arm. Breech-loading	H. M. Pope	384,277	June 12	655	176	43	1256
Fire-arm. Breech-loading	R. T. Torkelson and I. Johnson	379,257	Mar. 13	569	158	42	1079
Fire-arm. Breech-loading	A. E. Whitmore	386,174	July 17	1233	329	44	257
Fire-arm. Breech-loading	E. Whitney	389,036	Sept. 4	335	88	44	1136
Fire-arm lock	J. Nicely	377,531	Feb. 7	276	70	42	548
Fire-arm. Magazine	R. M. Aughenbaugh and G. E. Ruffley	381,821	Apr. 24	2288	595	43	479

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Fire-arm. Magazine .....	T. G. Bennett .....	386,290	July 17	1415	373	44	290
Fire-arm. Magazine .....	J. M. and M. S. Browning .....	376,576	Jan. 17	1199	{ 317 318 }	42	245
Fire-arm. Magazine .....	J. M. and M. S. Browning .....	385,238	June 26	2096	537	43	1551
Fire-arm. Magazine .....	W. H. Elliot .....	377,549	Feb. 7	301	77	42	552
Fire-arm. Magazine .....	H. H. Graham .....	386,535	July 24	1787	472	44	373
Fire-arm. Magazine .....	S. and K. Kryka .....	386,638	July 24	1913	{ 506 507 584 585 586 }	44	399
Fire-arm. Magazine .....	J. P. Lee .....	383,363	May 22	2207	{ 584 585 586 }	43	964
Fire-arm. Magazine .....	H. Leineweber .....	379,794	Mar. 20	1369	{ 365 366 }	42	1242
Fire-arm. Magazine .....	R. Mallen .....	386,889	July 31	2320	610	44	482
Fire-arm. Magazine .....	R. Morris .....	376,901	Jan. 24	1716	450	42	350
Fire-arm. Magazine .....	F. Passler .....	385,875	July 16	817	216	44	166
Fire-arm. Magazine .....	A. W. Savage .....	378,525	Feb. 28	1771	468	42	866
Fire-arm. Magazine .....	F. Von Stepski and E. Stierzinger .....	393,406	Nov. 27	1794	474	45	967
Fire-arm magazine .....	S. K. Hindley .....	384,161	June 5	475	131	43	1213
Fire-arm. Revolving .....	H. M. Caldwell .....	383,701	May 29	2715	717	43	1071
Fire-arm. Revolving .....	I. Johnson and A. Fyrberg .....	391,153	Oct. 16	1368	365	45	278
Fire-arm sight .....	J. W. Carver .....	387,282	Aug. 7	117	31	44	595
Fire-arm sight .....	J. Manton .....	378,205	Feb. 21	1291	341	42	765
Fire-arms. Cartridge feed-indicator for .....	E. S. Butler .....	382,455	May 8	873	223	43	684
Fire-arms. Charge-indicator for breech-loading .....	D. M. Lefever .....	385,360	July 3	35	11	44	9
Fire-arms. Charger for magazine .....	S. J. Mixer .....	391,811	Oct. 30	2288	621	45	479
Fire-arms. Detachable magazine for .....	P. Mauser .....	383,895	June 5	67	21	43	1134
Fire-arms. Ejector mechanism for breech-loading .....	C. O. Ellis and E. W. Wilkinson .....	394,843	Dec. 18	1720	{ 446 447 }	45	1433
Fire-arms. Ejector mechanism for breech-loading .....	C. O. Ellis and E. W. Wilkinson .....	394,844	Dec. 18	1722	447	45	1424
Fire-arms. Lead-indicator for magazines of .....	W. R. Miller .....	394,872	Dec. 18	1765	458	45	1432
Fire-arms. Projectile for .....	H. J. Harwood .....	375,936	Jan. 3	287	77	42	59
Fire-arms. Rear sight for .....	D. V. Bean .....	382,130	May 1	373	97	43	582
Fire-arms. Rust-preventer for .....	C. I. Wooster .....	388,804	Aug. 25	2443	650	44	1062
Fire-arms. Safety-holder for .....	C. C. B. Whyte .....	393,677	Nov. 27	2216	580	45	1052
Fire-arms. Set-trigger for .....	W. H. Davenport .....	390,286	Oct. 2	122	34	45	27
Fire-arms. Sight for .....	E. J. Cutler .....	392,108	Oct. 30	2742	745	45	568
Fire-back .....	S. Bernstein .....	393,959	Dec. 4	329	89	45	1135
Fire-bowls. Upper and lower plate for .....	A. S. Newby .....	379,594	Mar. 20	1077	286	42	1183
Fire-cracker cannon .....	J. J. Loud .....	385,127	June 26	1935	494	43	1518
Fire-cracker holder .....	A. Willis .....	385,032	June 26	1791	462	43	1489
Fire-engine lighter .....	P. R. Martin .....	385,419	July 3	128	345	44	27
Fire-engines. Heater for steam .....	E. Medden .....	376,330	Jan. 10	856	225	42	173
Fire-engines. Heating apparatus for .....	H. Trask and W. N. Carmichael .....	395,093	Dec. 25	2111	546	45	1508
Fire-engines. Speaking-tube for .....	W. E. Cassells .....	376,067	Jan. 10	479	129	42	103
Fire-escape .....	J. Abbott .....	376,622	Jan. 17	1287	339	42	261
Fire-escape .....	T. J. Baker .....	394,149	Dec. 11	607	163	45	1197
Fire-escape .....	W. C. Barker .....	376,505	Jan. 17	1107	290	42	237
Fire-escape .....	J. Batten .....	377,058	Jan. 31	1934	508	42	400
Fire-escape .....	A. F. Bedell .....	387,619	Aug. 14	649	168	44	704
Fire-escape .....	A. Bernstein and A. Goldstein .....	383,432	May 29	2323	616	43	990
Fire-escape .....	W. Block .....	383,613	May 29	2593	686	43	1044
Fire-escape .....	E. Bovensiepe .....	380,173	Mar. 27	1953	521	42	1364
Fire-escape .....	H. L. Boyle .....	381,982	May 1	135	32	43	539
Fire-escape .....	T. Brice .....	383,340	May 22	2173	574	43	957
Fire-escape .....	W. Bruce .....	380,179	Mar. 27	1958	{ 522 523 }	42	1365
Fire-escape .....	W. Bruce .....	390,445	Oct. 2	347	92	45	73
Fire-escape .....	W. Bruce .....	390,446	Oct. 2	349	92	45	74
Fire-escape .....	T. R. Budd .....	376,237	July 17	1346	355	44	277
Fire-escape .....	H. B. Kalkus .....	383,211	May 22	1990	522	43	924
Fire-escape .....	C. J. Clark .....	388,829	Sept. 4	31	10	44	1078
Fire-escape .....	J. Clark .....	379,934	Mar. 27	1612	429	42	1297
Fire-escape .....	A. De Waale .....	391,358	Oct. 16	1651	{ 436 437 }	45	331
Fire-escape .....	W. J. Debus .....	387,772	Aug. 14	865	223	44	745
Fire-escape .....	J. and J. Esson .....	392,999	Nov. 20	1217	316	45	844
Fire-escape .....	J. M. Fink .....	389,696	Sept. 18	1372	{ 359 360 }	44	1346
Fire-escape .....	C. M. Fowler .....	391,109	Dec. 4	544	146	45	1174
Fire-escape .....	S. H. Gardiner .....	384,143	June 5	448	124	43	1207
Fire-escape .....	J. H. Glascock .....	378,882	Mar. 6	38	10	42	973
Fire-escape .....	J. Grant .....	383,570	May 29	2534	669	43	1030
Fire-escape .....	L. Hill .....	388,491	Aug. 28	1991	535	44	976
Fire-escape .....	T. P. Holt .....	378,316	Feb. 21	1465	383	42	796
Fire-escape .....	J. Hornby .....	380,284	Mar. 27	2100	{ 561 562 }	42	1394
Fire-escape .....	J. Hotchkiss .....	394,272	Dec. 11	798	212	45	1233
Fire-escape .....	W. H. Howard .....	388,279	Aug. 21	1680	449	44	912
Fire-escape .....	O. Hughes .....	376,034	Jan. 3	433	115	42	87
Fire-escape .....	H. M. Jones .....	391,536	Oct. 23	1897	509	45	390
Fire-escape .....	G. W. Kceler .....	386,204	July 17	1270	339	44	264
Fire-escape .....	S. Leivy .....	385,361	July 3	36	11	44	9
Fire-escape .....	J. C. Lund .....	381,478	Apr. 17	1775	474	43	362
Fire-escape .....	J. MacGregor .....	392,278	Nov. 6	148	38	45	622
Fire-escape .....	M. H. Marcus and O. G. Moore .....	376,253	July 17	1366	360	44	221
Fire-escape .....	W. McMillin .....	384,376	June 12	813	211	43	1283
Fire-escape .....	L. J. Mesner .....	377,766	Feb. 14	656	{ 164 165 }	42	635
Fire-escape .....	A. R. Moore .....	376,807	Jan. 24	1585	415	42	326
Fire-escape .....	J. M. Murphy .....	390,308	Oct. 2	148	41	45	33
Fire-escape .....	M. Naylor .....	377,266	Jan. 31	2235	591	42	458
Fire-escape .....	T. B. Nutting .....	394,502	Dec. 11	1127	293	45	1295

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Fire-escape	J. K. O'Neil	387,180	July 31	2752	720	41	561
Fire-escape	J. K. O'Neil	387,436	Aug. 7	352	90	41	641
Fire-escape	S. B. Parker	382,550	May 8	1020	261	43	713
Fire-escape	G. Pritchett	376,160	Jan. 10	623	167	42	130
Fire-escape	H. Reiners	383,491	May 29	2422	643	43	1009
Fire-escape	L. P. Santy	391,561	Oct. 23	1930	520	45	397
Fire-escape	W. T. Smith	384,292	June 12	675	180	43	1259
Fire-escape	D. H. Sweeney	378,529	Feb. 28	1777	469	42	867
Fire-escape	W. M. Tompkins	380,303	Mar. 27	2123	568	42	1399
Fire-escape	W. H. Wells	394,625	Dec. 18	1349	352	45	1349
Fire-escape	F. A. Westbrook	389,574	May 8	1060	270	43	722
Fire-escape, fireman's ladder, and hose-elevator	S. Stewart	393,038	Nov. 20	1272	329	45	855
Fire-escape. Folding	I. B. Stillman	376,216	Jan. 10	700	186	42	144
Fire-escape. Friction	L. D. Smith and W. A. Olds	376,787	Jan. 24	1552	408	42	320
Fire-escape grip	W. M. Tompkins	380,302	Mar. 27	2122	568	42	1399
Fire-escape. Ladder	F. L. Blom	389,862	May 15	1459	343	43	810
Fire-escape ladder	J. W. Frey	382,150	May 1	400	105	43	587
Fire-escape. Portable	W. Brown	381,672	Apr. 21	2058	538	43	437
Fire-escape. Portable	G. Gavin, L. W. Cromer, and F. Gilmer	378,833	Feb. 28	2230	593	42	954
Fire-escape. Rope	R. P. Lovejoy	387,650	Aug. 14	691	178	44	712
Fire-extinguisher	J. O. Banning	379,756	Mar. 20	1311	350	42	1230
Fire-extinguisher	W. P. Bending	393,606	Nov. 27	2105	551	45	1030
Fire-extinguisher	W. G. Browne	378,285	Feb. 21	1424	372	42	788
Fire-extinguisher	C. S. Dean	380,194	Mar. 27	1982	531	42	1370
Fire-extinguisher	W. H. Durant	376,239	Jan. 10	728	194	42	149
Fire-extinguisher	I. N. Goodnight	388,773	Aug. 28	2401	618	41	1653
Fire-extinguisher	W. Miller	395,069	Dec. 25	2073	536	45	1501
Fire-extinguisher	A. J. Smith and L. W. Nuebling	392,168	Oct. 30	2829	767	45	584
Fire-extinguisher	G. T. Turner	392,926	Nov. 13	1111	288	45	816
Fire-extinguisher and alarm. Automatic	I. T. Dyer	392,951	Nov. 13	1133	295	45	821
Fire-extinguisher. Automatic	C. L. Horack	381,376	Apr. 17	1619	432	43	332
Fire-extinguisher. Automatic	R. W. Miller	379,240	Mar. 13	548	153	42	1075
Fire-extinguisher. Automatic	W. Neracher	390,606	Oct. 9	693	181	45	146
Fire-extinguisher. Chemical	W. H. Cummings	385,661	July 3	489	126	41	95
Fire-extinguisher. Chemical	T. G. Turner	381,658	Apr. 24	2040	534	43	433
Fire-extinguisher. Duplex percussion hand	E. A. Galbraith	392,671	Nov. 13	728	185	45	740
Fire-extinguisher for car-heaters	G. W. Robinson	384,642	June 19	1198	317	43	1365
Fire-extinguisher for car-heaters	G. F. Seaver	380,057	Mar. 27	1792	479	42	1332
Fire-extinguisher for car-heaters. Automatic	L. A. Lyon	381,501	Apr. 17	1816	481	43	371
Fire-extinguisher for railway-cars	G. Gibbs	387,064	July 31	2566	675	44	531
Fire-extinguisher for railway-cars	G. W. Ohorn	383,004	May 15	1661	434	43	849
Fire-extinguisher for railway-cars	F. E. Squire	388,738	Aug. 28	2342	631	44	1043
Fire-extinguisher for railway-coaches. Automatic	A. C. Rumble, J. Symington, and N. Strong	376,046	Jan. 3	446	119	42	89
Fire-extinguisher for stoves and heaters. Automatic	F. L. Hotchkiss and P. A. Raby	382,812	May 15	1396	366	43	797
Fire-extinguisher for the stoves of railway-cars	D. R. Galtcher	389,924	Sept. 25	1722	455	44	1423
Fire-extinguisher. Hand	J. E. Long	379,708	Mar. 20	1244	331	42	1218
Fire-extinguisher. Portable	E. K. Parker	381,276	Apr. 17	1175	396	43	303
Fire-extinguishers. Alarm-valve for automatic	R. Dowson and J. Taylor	384,514	June 12	1012	263	43	1321
Fire-extinguishers. Cock for	C. C. Connell	384,745	June 19	1352	353	43	1394
Fire-extinguishers. Electric valve-controller for automatic	T. Atkinson	381,459	Apr. 17	1747	467	43	356
Fire-extinguishers. Syringe for hand	A. L. Pitney	385,477	July 3	211	55	44	42
Fire-extinguishing apparatus	A. E. Grant	394,687	Dec. 18	1453	379	45	1370
Fire-extinguishing apparatus	E. Perelles	379,282	Mar. 13	606	166	42	1087
Fire-extinguishing apparatus	H. Wyman	392,250	Nov. 6	107	28	45	615
Fire-extinguishing apparatus	H. Wyman	392,251	Nov. 6	109	28	45	615
Fire-extinguishing apparatus. Automatic	E. P. Gleason	392,117	Oct. 30	2754	748	45	571
Fire-extinguishing apparatus. Automatic	A. F. Nagle	387,179	July 31	2750	720	41	561
Fire-extinguishing apparatus. Locomotive	L. E. Truesdell	380,956	Apr. 10	989	262	43	201
Fire-extinguishing attachment for car-stoves	D. Ross and N. Brooker	376,163	Jan. 10	626	168	42	131
Fire-extinguishing compound	E. G. Penrose, H. S. Nutting, and W. H. Smith	387,915	Aug. 14	1090	44	45	729
Fire-hydrant	A. H. Mellert	381,940	May 1	59	15	43	526
Fire-hydrant. Pneumatic	H. L. McAvoy	381,805	Apr. 24	2244	587	43	472
Fire-kindler	E. E. Brewster	379,631	Mar. 20	1132	300	42	1194
Fire-kindler	E. E. Brewster	380,176	Mar. 27	1955	522	42	1365
Fire-kindler	H. M. Hammore	381,237	Apr. 17	1423	382	43	292
Fire-kindler	W. R. Myers	393,570	Nov. 27	2045	536	45	1018
Fire-kindler	T. T. Prosser	386,895	July 31	2328	612	44	483
Fire-kindler	J. Randall	381,951	May 1	74	19	43	529
Fire-kindler	J. H. Sherwood	386,499	July 24	1719	454	44	362
Fire-kindler	G. D. Streeter	380,666	Apr. 3	452	128	43	92
Fire-kindler	G. D. Streeter	380,667	Apr. 3	453	128	43	92
Fire-lighter	W. Harles	384,842	June 19	1504	391	43	1424
Fire-lighter. Automatic	F. J. Berg	386,232	July 17	1334	352	44	275
Fire-pail. Chemical	C. R. Macomber	392,353	Nov. 6	262	67	45	644
Fire-place	R. B. Berrie	388,173	Aug. 21	1520	405	41	877
Fire-place	A. J. Campbell	390,282	Oct. 2	116	33	45	26
Fire-place	R. Savage	393,178	Nov. 20	1454	379	45	892
Fire-place	W. O. Wheeler	394,042	Dec. 4	450	121	45	1157
Fire-place and damper	S. Shaw	390,040	Sept. 25	1886	498	44	1456
Fire-place ash-chutes. Cover for	C. A. Wellington	375,969	Jan. 3	331	88	42	68
Fire-place fender and air-moistener. Combined	T. Bradford	376,575	Jan. 17	1198	317	42	214
Fire-place fender frame	F. G. Janusch	393,112	Nov. 20	1366	356	45	873
Fire-place lining	J. Dwyer	379,057	Mar. 6	286	83	42	1020
Fire-places. Apparatus for preventing smoking in	A. Gassiss	385,610	July 3	418	106	44	82
Fire-places. Natural-gas heater for	J. M. Ellison	386,391	July 17	1548	410	44	316
Fire-proof building	R. Guastavino	383,050	May 15	1756	454	43	868

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Fire-proof composition .....	J. Blaszkaye .....	385,694	July 10	542	.....	44	113
Fire-proof material .....	J. Smith .....	381,439	Apr. 17	1714	459	43	351
Fire-proof material for drop-curtains .....	R. T. Brown and W. Orr .....	387,137	July 31	2688	705	44	550
Fire-proof partition .....	P. Smith .....	377,175	Jan. 31	2098	553	42	433
Fire-proof structure .....	S. D. Hatch .....	376,381	Jan. 10	921	242	42	185
Fire-screen .....	F. Rudolph .....	390,140	Sept. 25	2032	541	44	1487
Fire-signal and burglar-alarm .....	J. E. Church .....	380,186	Mar. 27	1968	526	42	1367
Fire-sprinkler. Automatic .....	W. Neracher .....	388,905	Sept. 4	151	40	44	1101
Fire-work .....	J. J. Detwiller .....	377,730	Feb. 7	564	145	42	601
Fire-works. Apparatus for charging .....	C. Wadsworth .....	376,691	Jan. 17	1394	367	42	280
Fire-works. Machine for charging .....	C. B. Linton .....	376,004	Jan. 3	386	102	42	78
Fires and lights in railway-cars. Apparatus for extinguishing .....	M. O. Parker .....	378,938	Mar. 6	111	32	42	988
Fires and preventing the escape of steam in railway-cars. Device for extinguishing .....	S. H. Harrington .....	381,924	May 1	35	10	43	521
Fires in railway-cars. Apparatus for extinguishing .....	W. C. Edwards and O. R. Sackett .....	379,058	Mar. 6	287	84	42	1020
Fires in railway-cars. Apparatus for extinguishing .....	B. Millhanser .....	376,749	Jan. 24	1480	390	42	306
Fires in railway-cars. Device for extinguishing .....	S. H. Harrington and E. Grafsstrom .....	381,923	May 1	33	10	43	521
Fires in stoves. Extinguishing .....	A. Doetschmann .....	382,283	May 22	2102	555	43	944
Fires in theaters and other buildings. Device for extinguishing .....	W. Hargreaves .....	386,199	July 17	1265	338	44	263
Fires. Steam system for extinguishing .....	E. H. Ashcroft .....	386,621	July 24	1894	501	44	396
Firemen in burning buildings. Device for supplying air to .....	S. L. Loomis .....	386,751	July 24	2079	547	44	429
Firemen. Life-saving harness for the use of .....	G. F. Griffin .....	393,555	Nov. 27	2028	531	45	1015
Fireproofing compound .....	B. F. McIntyre .....	391,261	Oct. 16	1518	45	45	307
Fireproofing compound .....	B. F. McIntyre .....	391,327	Oct. 16	1608	45	45	324
Fish. Device for stringing .....	F. A. Roberts .....	389,598	Sept. 18	1920	319	44	1317
Fish-eggs. Case for transporting .....	G. T. Sandford .....	376,553	Jan. 17	1171	308	42	239
Fish-hook .....	J. H. Hunter .....	385,913	July 10	873	231	44	179
Fish-hook .....	C. Kerrison, Jr. ....	377,033	Jan. 31	1899	499	42	392
Fish-hook .....	W. H. Rice .....	379,080	Mar. 6	318	92	42	1025
Fish-hook .....	G. Smith .....	387,015	July 31	2504	657	44	519
Fish-line reel .....	C. P. Gillet .....	389,070	Sept. 4	383	100	44	1146
Fish-plate .....	T. A. Davies .....	377,885	Feb. 14	825	210	42	667
Fish-plate .....	C. Licardie .....	382,047	May 1	259	67	43	561
Fish-plate .....	S. Phillips .....	383,763	May 29	2820	742	43	1089
Fish-plate and fastening .....	H. W. Allen .....	393,320	Nov. 20	1669	440	45	934
Fish-plate joint .....	G. S. Lee .....	391,625	Oct. 23	2016	545	45	415
Fish or game trap .....	G. H. Kile .....	386,591	July 24	1859	491	44	387
Fish-trap .....	E. W. Jenkins .....	379,701	Mar. 20	1235	329	42	1216
Fish-trap. Spring .....	G. H. Keller .....	384,853	June 19	1520	396	43	1427
Fishing-boats. Combined roller and bell for .....	L. D. Lothrop .....	375,882	Jan. 3	208	57	42	44
Fishing-fly book .....	C. G. Levison .....	392,959	Nov. 13	1146	298	45	823
Fishing-hook .....	C. F. Dietz .....	377,294	Jan. 31	2280	603	42	467
Fishing-reel .....	A. F. Boardman .....	384,672	June 19	1344	328	43	1374
Fishing-reel .....	C. K. Bradford .....	384,742	June 19	1349	352	43	1394
Fishing-reel .....	M. Cashin .....	390,752	Oct. 9	773	206	45	160
Fishing-reel .....	H. H. Cordes .....	384,309	June 12	701	186	43	1264
Fishing-reel .....	N. Dilg .....	393,098	Nov. 20	1347	352	45	870
Fishing-reel .....	G. S. Gates .....	377,100	Jan. 31	2006	525	42	413
Fishing-reel .....	W. A. Graham .....	386,705	July 24	2014	531	44	417
Fishing-reel .....	A. B. Hendryx .....	385,931	July 10	895	237	44	183
Fishing-reel .....	P. H. Yaman .....	378,565	Feb. 28	1831	483	42	877
Fishing-reel handle .....	T. G. Turner .....	391,992	Oct. 30	2553	691	45	531
Fishing-reel signal .....	L. M. Jones .....	380,899	Apr. 10	903	242	43	185
Fishing-reels and rods. Wedge-ferrule for .....	H. Prichard .....	376,260	Jan. 10	760	202	42	156
Fishing-rod .....	E. Horton .....	386,320	July 17	1455	385	44	297
Fishing-rod .....	E. Horton .....	386,321	July 17	1456	385	41	298
Fishing-rod handle .....	C. S. Treadway .....	394,032	Dec. 4	429	116	45	1153
Fishing-rod holder .....	A. F. and W. Meisselbach .....	388,433	Aug. 28	1916	512	44	961
Fishing-rods. Line-guide for .....	J. Spruce and A. M. Comstock .....	387,545	Aug. 7	526	136	44	674
Fishing-spoon .....	J. Wood .....	395,103	Dec. 25	2139	550	45	1511
Flanging-machine .....	G. A. Ford and C. R. Hussey .....	377,999	Feb. 14	994	259 } 260 }	42	701
Flanging-machine. Tinman's .....	W. J. Bayrer .....	393,055	Nov. 20	1294	336	45	860
Flash-light signal .....	W. H. Thompson .....	387,932	Aug. 14	1119	298	44	795
Flask: See Car-wheel flask. Molder's snap-flask. Molder's flask.							
Flask-clamp. Adjustable .....	A. C. Allbee .....	378,640	Feb. 28	1931	513	42	898
Flat-iron heater .....	A. L. Howell .....	390,478	Oct. 2	396	101	45	82
Flat-iron heater .....	A. Modery and A. Leukhardt .....	382,718	May 15	1270	333	43	771
Flat-iron. Self-heating .....	J. B. Curl .....	383,346	May 22	2181	577	43	958
Flat-pointed nail or tack .....	J. F. Thayer .....	387,380	Aug. 7	274	70	44	624
Flax, &c. Apparatus for breaking, scutching, and cleaning .....	J. O. Wallace .....	385,737	July 10	605	156 } 157 }	44	125
Flier-frame .....	H. F. Straw .....	376,118	Jan. 10	551	147	42	117
Flies. Device for catching .....	S. R. and F. A. Wilmot .....	382,580	May 8	1072	274	43	724
Flies. Device for poisoning .....	J. B. Kibler .....	378,509	Feb. 28	1747	461	42	861
Flood-gate .....	J. Erkmann .....	394,683	Dec. 18	1447	377	45	1369
Flood-gate .....	W. S. Huston .....	380,653	Apr. 3	516	144	43	105
Flood-gate .....	J. Murphy .....	386,436	July 17	1623	427	44	335
Flood-gate .....	G. E. Teegardin .....	387,020	July 31	2508	659	44	520
Floor-board gage .....	F. H. Morse .....	386,553	July 24	1811	478	44	378
Floor-clamp .....	C. W. Boettner .....	389,919	Sept. 25	1715	433	44	1422
Floor-clamp .....	C. E. Holmes .....	376,439	Jan. 17	1011	265	42	209
Floor-clamp .....	G. H. Lusk .....	386,545	July 24	1800	475	44	376
Floor-cloth .....	D. N. Melvin .....	387,244	Aug. 7	66	16	44	584
Floor. Fire-proof .....	W. H. Brown .....	384,421	June 12	871	227	43	1295
Floor. Inlaid .....	C. Momborg .....	377,685	Feb. 7	507	130	42	591
Floor, roof, or area covering .....	P. H. Jackson. (Reissue) .....	10,921	Apr. 10	1292	328	43	246
Flooring for buildings .....	J. Marthaler .....	394,588	Dec. 18	1289	338	45	1339



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Flooring. Machine for making tongue-and-groove	G. Johnson, Jr.	393,278	Nov. 20	1546	405	45	911
Flooring. Wood-block	W. Duffly	377,098	Jan. 31	2004	525	42	413
Flossing-machine	J. McDermott	385,839	July 31	2248	591 592	44	468
Flour and meal bin	C. Vogt	375,966	Jan. 3	328	88	42	68
Flour-bolt	C. H. Browne	382,135	May 1	380	99	43	583
Flour-bolt	J. M. Cook	376,943	Jan. 24	1772	466	42	361
Flour-bolt	H. J. Gilbert	388,855	Sept. 4	75	20	44	1087
Flour-bolt	W. M. Lucas	383,062	May 15	1769	457 458	43	870
Flour-bolt	C. N. Smith	391,281	Oct. 16	1551	411	45	313
Flour-bolting machine	C. Bostel	386,959	July 31	2423	636 637	44	503
Flour-bolting reel	W. Gilleland	378,785	Feb. 28	2134	564	42	935
Flour-dresser	B. Kniffel	381,020	Apr. 10	1083	287	43	219
Flour-mill	J. J. Faulkner	385,175	June 26	1997	512	43	1531
Flour-mills. Grinding-rolls for	H. A. Huellner	386,014	July 10	999	266	44	204
Flour-mixing and sifting machine	C. Roehl	389,165	Sept. 4	553	139	44	1174
Flour-mixing machine	H. A. Weber and J. G. Zeidler	384,656	June 19	1215	321	43	1368
Flour or meal bin	C. W. Fishel	392,793	Nov. 13	919	235	45	778
Flour-packer	J. T. Melich	389,662	Sept. 18	1323	346	44	1336
Flour safe and sifter	H. Foster, Sr.	390,219	Oct. 2	40	11	45	11
Flouring-mill alarm	A. J. Buie	377,370	Feb. 7	5	2	42	496
Flower and perfume-receptacle. Combined artificial	C. Watson	387,466	Aug. 7	396	103	44	650
Flower-stand	J. W. Duffie and C. Weston	379,637	Mar. 20	1140	362	42	1196
Flower-stand	H. L. Starks	387,825	Aug. 14	940	243	44	760
Flower-stand	W. H. Wright	379,261	Mar. 13	574	159	42	1080
Flue-cleaner	W. F. Annable	379,091	Mar. 6	341	98	42	1030
Flue-cleaner	G. W. Berkshire	389,634	Sept. 18	1273	336	44	1336
Flue-cleaner	L. Duennisch	388,848	Sept. 4	59	16	44	1084
Flue-cleaner	F. L. McGahan	391,173	Oct. 16	1401	374	45	285
Flue-cleaner	J. Newmon	386,600	July 24	1868	493	44	389
Flue-cleaner	W. H. Thomas	390,822	Oct. 9	870	230	45	178
Flue cleaner. Boiler	I. Barker	393,810	Dec. 4	107	30	45	1093
Flue for electric transformers	E. Thomson	387,123	July 31	2669	678	44	547
Fine. Hot-air	T. J. Bradbeer	390,438	Oct. 2	336	89	45	71
Fine. Hot-air	S. B. Jungkunth	388,364	Aug. 21	1821	483	44	936
Fine-stopper	W. P. Walter	391,870	Oct. 30	2373	644	45	496
Flue-stopper	J. F. Weitzel and T. Lee	384,341	June 12	755	178	43	1272
Fine stopper and collar	J. I. Flanagan	388,961	Sept. 4	229	61	44	1116
Fine-thimble	C. C. Leully	384,918	June 19	1609	418	43	1443
Flue-top or spark-catcher	E. O. Woodruff	376,498	Jan. 17	1097	288	42	225
Fluid-discharge device	C. N. Tyler	378,812	Feb. 28	2188	583	42	946
Fluid drawing and measuring device	J. A. Kendall	384,766	June 19	1380	362	43	1400
Fluid-meter	C. N. Dutton	394,562	Dec. 18	1240	325 326	45	1330
Fluid-meter. Rotary	J. A. Tilden	385,970	July 10	935	248	44	191
Fluid-meter. Rotary	J. A. Tilden	385,971	July 10	938	249	44	192
Fluid-motor	W. J. and E. L. Thomas	377,586	Feb. 7	348	90	42	562
Fluid-pressure automatic brake mechanism	G. Westinghouse, Jr.	376,837	Jan. 24	1631	426 427	42	333
Fluid-pressure. Machine to be driven by	W. P. Canning	378,541	Feb. 28	1790	473 474	42	870
Fluids and semi-fluids by means of compressed air. Apparatus for forcing	S. H. Johnson and C. C. Hutchinson	392,011	Nov. 20	1232	320	45	847
Fluids. Apparatus for automatically regulating the flow and temperature of	G. A. Gustin	390,960	Oct. 9	1069	283	45	216
Fluids. Apparatus for mixing aeriform	T. F. Morrin and W. F. Cosgrove	387,873	July 10	812	215 216	44	165
Flushing-tank. Automatic	H. L. Howe	384,978	June 26	1692	410	43	1488
Flushing-tank for closets. Automatically-operating	F. H. Paradise	385,823	July 10	728	191	44	149
Flushing-tank. Pneumatic	J. E. Boyle	380,854	Apr. 10	825	224 225	43	171
Flux. Manufacturing	J. Webster	394,233	Dec. 11	738		45	1221
Fly-paper holder and trap. Combined sticky	O. and W. Thum	393,273	Nov. 20	1690	419	45	921
Fly-trap	C. H. Bennett	394,906	Dec. 18	1830	474	45	1443
Fly-wheel	L. D. Copeland	393,059	Nov. 20	1299	337	45	861
Fly-wheel	J. A. Romano and E. A. Barton	392,760	Nov. 13	861	220	45	768
Fly-wheel-clutching device	J. A. Romano and E. A. Barton	392,759	Nov. 13	860	220	45	767
Flying-machine	W. Beeson	376,937	Jan. 24	1765	464	42	360
Fodder-binder	J. Frazee	388,033	Aug. 21	1269	344 345	44	833
Fodder-binder	W. Leopold	385,126	June 26	1924	494	43	1518
Fodder-cutters and thrashing machines. Carrier for	W. R. Harrison	389,467	Sept. 11	1011	270 271	44	1272
Fodder-loader	J. Mishler	391,979	Oct. 30	2533	666	45	528
Fog signal	E. E. Mann	380,584	Apr. 3	420	119 120	43	86
Folded box or pail	C. W. Struble	390,266	Oct. 2	96	28	45	92
Folder. Sheet-metal	M. J. Stark	387,746	Aug. 11	832	215	44	738
Folding and swinging gate	J. B. Goodwin	381,064	Apr. 10	1157	309	43	232
Folding and swinging gate	J. B. Goodwin	381,065	Apr. 10	1159	309	43	233
Folding and swinging gate	J. B. and G. Goodwin	381,066	Apr. 10	1161	309 310	43	234
Folding case	H. C. Fay	382,804	May 15	1388	364	43	795
Folding chair	H. J. Harwood	381,367	Apr. 17	1608	430	43	330
Folding chair	H. F. Henry	380,484	Apr. 3	258	71	43	53
Folding chair	J. F. A. Spaet, W. F. Berry, and J. T. Snoddy	383,255	May 22	2057	540	43	936
Folding chair or settee	H. J. Harwood	379,066	Mar. 6	296	86	42	1022
Folding chair or settee	H. J. Harwood	391,965	Oct. 30	2513	600	45	524
Folding-machine	L. C. Crowell	383,798	May 29	2879	757 758 759	43	1100

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Folding mosquito-net, tarlatan, and other piece goods	I. E. Palmer	378,212	Feb. 21	1297	344	42	767
Folding screen	H. C. Tripp	388,161	Aug. 21	1504	400	44	874
Folding seat	H. L. Andrews	390,431	Oct. 2	327	86	45	69
Folding table	E. Babcock	382,937	May 15	1564	408	43	831
Folding table	J. T. Bon.	386,450	July 24	1653	436	44	349
Folding table	A. T. H. Brower	390,340	Oct. 2	197	52	45	42
Folding table	A. B. Jones	390,173	Sept. 25	2086	556	44	1497
Folding table	A. W. Steiger	389,535	Sept. 11	1103	292	44	1290
Folding table	F. A. White	376,726	Jan. 17	1445	379	42	291
Folding table and blackboard. Combined	F. Trapp	380,366	Apr. 3	93	28, 29	43	21
Food compound	H. T. Champney	393,459	Nov. 27	1873		45	982
Food for animals. Preparing	F. W. Wendenburg	389,270	Sept. 11	720		44	1217
Food for animals. Preparing	F. W. Wendenburg	389,271	Sept. 11	721		44	1217
Food for cattle	G. A. Brinck and A. V. Rohnuström	388,339	Aug. 21	1773		44	928
Food for cattle, horses, and swine. Composition	W. Wernich	385,220	June 26	2067		43	1545
Food package. Compressed.	J. Maggi	395,243	Dec. 25	2369	606	45	1551
Food. Preparing cattle.	L. S. Harrison	389,507	Sept. 11	1066		44	1282
Foot-gear	M. Langen	377,203	Jan. 31	2139	565	42	441
Foot-power motor	J. M. Curtice	390,653	Oct. 9	634	169	45	134
Foot-rest	J. E. Pike	383,906	June 5	92	27	43	1138
Foot-rest and kneeling-stool. Combined	E. W. Jeffries	393,472	Nov. 27	1907	498 499	45	988
Foot-rest and stool for shoe-merchants	C. L. Robb	375,954	Jan. 3	308	82	42	64
Foot-warming apparatus for beds	J. A. Lewis	385,865	July 10	799	212	44	163
Forceps, &c. Clamping device for	F. A. Stohlmann	385,076	June 26	1865	476	43	1503
Forge. Portable	G. Cumming	386,771	July 24	2106	553	44	434
Forge. Portable	W. T. Kellogg	389,305	Sept. 11	781	158	44	1228
Forge. Smith's.	G. W. Hicox	392,153	Oct. 30	2811	763	45	581
Forges. Driving mechanism for	E. E. Webb	378,273	Feb. 21	1404	368	42	785
Forging die	H. H. Forsyth	384,751	June 19	1359	355	43	1396
Forging-machine	D. H. Downes	383,047	May 15	1751	453	43	867
Forgings. Appliance for manipulating large	G. Siddell	380,950	Apr. 10	976	258 259	43	199
Forgings. Die for making rolled	G. F. Simonds. (Reissue)	10,928	May 8	1212	314	43	752
Forgings. Die for making rolled	G. F. Simonds	384,091	June 5	364	103	43	1191
Forgings. Die for making rolled	G. F. Simonds	384,092	June 5	365	103	43	1191
Forgings. Machine for making rolled	C. E. Gould	385,752	July 10	630	164 165	44	130
Fork:							
See Carving-fork.	Hay-turning fork.						
Hay-fork.	Pie-fork.						
Hay and fodder fork.	Pitch-fork.						
Hay or straw grappling fork.	Tedder-fork.						
Fork-guard	F. C. Feicker	380,793	Apr. 10	742	203	43	156
Fork-guard	F. C. Feicker	384,900	June 19	1583	412	43	1438
Fork-guard	C. H. Steigleder	382,060	May 1	275	72	43	564
Forming-tool	W. W. Emerson	388,652	Aug. 28	2222	596	44	1020
Foundations. Frost-protector for	H. H. Morgan	385,278	June 26	2162	552	43	1564
Fountain:							
See Soda-water fountain.							
Frame:							
See Advertising-frame.	Flier-frame.						
Bag and satchel frame.	Harvester-frame.						
Bag or satchel frame.	Lantern-frame.						
Bolting-reel frame.	Match-frame.						
Boot-cripping frame.	Paper-machine frame.						
Brick-kiln frame.	Photographic-printing frame.						
Buckle-frame.	Picture-frame.						
Bucksaw-frame.	Pocket-book frame.						
Car-floor frame.	Pocket-book, bag, and purse frame.						
Caster-frame.	Quilting-frame.						
Clothes-frame.	Reeling-frame.						
Clothes-line-supporting frame.	Revolving frame.						
Display-frame.	Saw-frame.						
Draft-frame.	Spinning-frame.						
Embroidering-frame.	Tobacco-frame.						
Embroidery-frame.	Window-frame.						
Eyeglass-frame.	Writing-frame.						
Fire-placo-fender frame.							
Frame	C. M. Whitmore	375,906	Jan. 3	239	65	42	50
Freezer	T. L. Delpy	390,349	Oct. 2	215	56	45	45
Freezer	T. L. Delpy	391,125	Oct. 16	1330	354 355	45	271
Freezing pan or tray for fish, &c.	R. Connable	386,383	July 17	1539	408	44	314
Freight-record	M. M. Kirkman	388,881	Sept. 4	112	30	44	1094
Friction-coupling	O. Kromer	385,122	June 26	1929	492	43	1517
Fricion-drill	J. H. Vinton	378,944	Mar. 6	118	34	42	989
Fringe	J. Singer	380,141	Mar. 27	1912	510	42	1356
Fringe. Chenille	C. A. Schmidt	379,033	Mar. 6	254	72	42	1014
Frog or car-replacer. Portable	W. O. Cooke	388,397	Aug. 28	1866	499	44	951
Frogs, switches, &c. Foot-guard for	G. Nevens	380,586	Apr. 3	423	120	43	86
Frogless switch	C. W. Jones	394,118	Dec. 4	556	149	45	1177
Frogless switch	F. Nemacheck	377,529	Feb. 7	274	69	42	547
Fruit-assorter. Automatic	T. Hiatt	381,241	Apr. 17	1427	383 384	43	293
Fruit-assorting machine	W. R. Phillips	376,904	Jan. 24	1720	451	42	351
Fruit-bleaching apparatus	A. Todd	384,880	June 19	1562	406	43	1434

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Fruit-box .....	R. E. Morey .....	390,135	Sept. 25	2027	540	44	1485
Fruit-drier .....	W. Grey .....	390,959	Oct. 9	1068	282	45	215
Fruit-drier .....	Z. W. Merithew .....	382,617	May 8	1124	289 290	43	734
Fruit-drier .....	J. L. Phelps .....	383,245	May 22	2038	534 535	43	933
Fruit-evaporator .....	E. White .....	378,483	Feb. 28	1712	452	42	854
Fruit-gatherer .....	J. Alexander .....	356,680	July 24	1980	523	44	411
Fruit-gatherer .....	J. B. Cather .....	393,209	Nov. 20	1508	394	45	903
Fruit-gatherer .....	G. A. and C. F. Fleming .....	389,697	Sept. 18	1374	360	44	1346
Fruit-gatherer .....	R. A. Hall .....	390,165	Sept. 25	2076	553	44	1495
Fruit-gatherer .....	W. Watson .....	390,106	Sept. 25	1988	529	44	1477
Fruit-gatherer .....	C. G. Wilson .....	391,529	Oct. 30	2315	628	45	484
Fruit-holding device .....	J. J. W. Place .....	386,004	July 24	1873	494	44	391
Fruit-jar .....	G. H. Harvey .....	388,488	Aug. 28	1989	534	44	976
Fruit-jar .....	J. B. and R. Johns .....	381,250	Apr. 17	1442	388	43	296
Fruit-jar .....	A. Nöltner .....	381,482	Apr. 17	1783	475	43	364
Fruit-jar .....	G. C. Sawyer .....	386,560	July 24	1820	481	44	379
Fruit-knife .....	L. C. McNeal .....	379,238	Mar. 13	546	153	42	1075
Fruit-packing machine .....	A. N. Clark .....	392,106	Oct. 30	2739	744 745	45	568
Fruit-packing press .....	E. A. Chatfield .....	385,907	July 10	868	229	44	178
Fruit-picker .....	P. and G. W. Ansley .....	394,550	Dec. 18	1215	317	45	1325
Fruit-picker .....	H. Hammond .....	382,764	May 15	1339	349	43	783
Fruit-press .....	G. L. Cuduer .....	385,697	July 10	516	142	44	114
Fruit-stoning machine .....	B. A. Lillie .....	383,739	May 29	2773	730 731	43	1031
Fruit-stoning machine .....	B. A. Lillie .....	384,371	June 12	804	209	43	1281
Fry-pan or broiler .....	M. S. Tracy .....	392,239	Nov. 6	90	22	45	611
Frying-pan or similar utensil .....	E. L. Farrell .....	391,524	Oct. 23	1881	505	45	386
Fuel. Apparatus for burning liquid .....	C. Qvarnström .....	390,036	Sept. 25	1881	496 497	44	1455
Fuel. Apparatus for burning liquid as a .....	A. Wilkin .....	388,327	Aug. 21	1756	469	44	925
Fuel. Apparatus for burning oil for .....	S. H. Robinson .....	391,819	Oct. 30	2300	624	45	481
Fuel. Apparatus for reducing and pulverizing .....	H. Ruddick .....	388,375	Aug. 21	1839	489	44	939
Fuel. Apparatus for the manufacture of peat .....	D. Aikman .....	390,545	Oct. 2	493	129 130	45	99
Fuel. Apparatus for the manufacture of vaporous and gaseous .....	C. Stilwell .....	386,364	July 17	1510	400	44	309
Fuel. Artificial .....	J. A. Freeman .....	393,427	Nov. 27	1824	...	45	973
Fuel. Artificial .....	G. S. Montgomery .....	391,179	Oct. 16	1409	376	45	286
Fuel. Automatic feed-regulator for liquid .....	W. E. Eastman .....	387,055	July 31	2548	670	44	527
Fuel-cartridge .....	F. J. Herron and E. M. Hugentobler .....	379,697	Mar. 20	1228	327	42	1214
Fuel-cartridge .....	J. T. Wheeler .....	382,671	May 8	1205	312	43	750
Fuel composition .....	E. Henu .....	378,249	Feb. 21	1366	...	42	778
Fuel composition .....	J. N. Owen .....	379,490	Mar. 13	915	...	42	1146
Fuel compound .....	L. Haas .....	394,486	Dec. 11	1107	...	45	1291
Fuel-feeding apparatus. Liquid .....	W. E. Eastman .....	387,056	July 31	2550	670	44	528
Fuel. Manufacturing peat .....	D. Aikman .....	390,547	Oct. 2	498	130	45	100
Fuel. Peat .....	D. Aikman .....	390,546	Oct. 2	497	...	45	109
Fuel. Prepared .....	C. Kimplen .....	392,869	Nov. 13	1024	...	45	800
Fumigator .....	J. S. Dillman and W. B. Kyle .....	395,042	Dec. 25	2036	526	45	1492
Fumigator .....	D. L. Snediker .....	392,235	Nov. 6	85	20	45	610
Fumigator .....	A. Spittler .....	387,544	Aug. 7	525	136	44	673
Funnel. Bottle .....	C. Xander and W. Thomas .....	388,386	Aug. 21	1853	492	44	942
Fur animals. Machine for pulling hair from skins of .....	E. Schroeder .....	382,736	May 15	1296	340 341	43	777
Fur-blower .....	T. J. Sayre .....	378,622	Feb. 28	1909	505	42	893
Fur-plucking machine .....	J. W. Sutton .....	383,258	May 22	2063	541 542	43	937
Fur satchel and muff. Combined .....	A. Brahadi .....	384,503	June 12	999	260	43	1318
Furnace:							
See Bagasse-furnace. Open-hearth furnace.							
Blast-furnace. Ore-roasting furnace.							
Blow-pipe furnace. Ore-smelting furnace.							
Boiler-furnace. Plumber's furnace.							
Car-heating furnace. Puddling-furnace.							
Crucible-furnace. Regenerative furnace.							
Cupola-furnace. Reheating-furnace.							
Garbage-cremating furnace. Reverberatory furnace.							
Gas-furnace. Slag-furnace.							
Glass-furnace. Smelting-furnace.							
Glass-melting furnace. Smoke-consuming furnace.							
Heating-furnace. Smoke-preventing furnace.							
Hot-air furnace. Smokeless furnace.							
Hydrocarbon-furnace. Soda-ash furnace.							
Metallurgical furnace. Sorghum-furnace.							
Oil-furnace. Steam-generator furnace.							
Water-heater furnace.							
Welding-furnace.							
Furnace .....	J. W. Cassidy .....	394,152	Dec. 11	612	164	45	1198
Furnace .....	G. A. Clark .....	392,947	Nov. 13	1128	293	45	820
Furnace .....	W. D. Dickson .....	393,362	Nov. 27	1733	458 459	45	953
Furnace .....	G. F. Gallagher .....	391,310	Oct. 16	1586	421	45	320
Furnace .....	J. Gilbert .....	393,005	Nov. 20	1225	318	45	815
Furnace .....	E. Herrman and L. P. Cohen .....	385,623	July 3	440	113 114	44	86
Furnace .....	S. S. Hersey .....	392,804	Nov. 13	934	239	45	731
Furnace .....	A. J. Hill .....	388,360	Aug. 21	1813	482	44	935

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. gr.	Vol.	Page.
Furnace.....	A. C. Huidekoper and L. Houze.....	378,839	Feb. 28	2338	{ 596 597 }	42	955
Furnace.....	W. R. Jones.....	389,575	Sept. 18	1175	{ 308 309 }	44	1309
Furnace.....	T. B. Moore.....	393,258	Nov. 20	1576	413	45	916
Furnace.....	M. L. Ritchie.....	387,317	Aug. 7	179	47	44	605
Furnace.....	G. R. Scates.....	376,785	Jan. 24	1546	{ 406 407 }	42	319
Furnace.....	F. Wild.....	393,409	Nov. 27	1799	475	45	968
Furnace-blocks. Apparatus for detecting leakage in	J. Bird.....	382,792	May 15	1375	361	43	792
Furnace bridge-wall.....	T. Reese, Jr.....	382,109	May 1	347	91	43	577
Furnace-door.....	L. B. Jordan.....	387,419	Aug. 7	323	83	44	635
Furnace-doors. Apparatus for opening.....	F. Doyle.....	384,137	June 5	436	121	43	1205
Furnace-doors. Pressure-hoist for.....	J. Todd.....	390,627	Oct. 2	593	157	45	119
Furnace-feeder.....	W. E. Allington.....	391,873	Oct. 30	2378	{ 645 646 }	45	497
Furnace for heating soldering-coppers.....	E. Holm.....	381,782	Apr. 24	2211	{ 578 579 }	43	466
Furnace for heating vehicle-axes.....	J. W. Parmelee and C. J. Cooper.....	392,923	Nov. 6	69	17	45	607
Furnace for heating wheel-tires.....	J. B. Hannay.....	385,925	July 10	884	234	44	181
Furnace for melting metal.....	J. M. and J. W. Cooper.....	392,187	Nov. 6	16	5	45	598
Furnace for recovering soda.....	J. H. Bullard.....	391,735	Oct. 23	2165	585	45	445
Furnace for smelting and reducing ores.....	R. Bonehill.....	387,043	July 31	2535	667	44	524
Furnace fuel-feeder.....	L. Y. Cochran and W. I. Lindsay. (Reissue.)	10,912	July 10	1136	301	44	230
Furnace fuel-feeder.....	L. Y. Cochran and W. J. Lindsay.....	391,301	Oct. 16	1577	418	45	318
Furnace fuel-feeder.....	A. Warne.....	388,468	Aug. 28	1964	527	44	971
Furnace grate.....	Z. F. Bryant.....	389,833	Sept. 18	1560	413	44	1385
Furnace grate.....	J. Cone.....	380,312	Apr. 3	9	2	43	4
Furnace grate.....	S. J. Gavin.....	388,273	Aug. 21	1673	{ 447 448 }	44	910
Furnace grate.....	W. H. Heeson.....	378,005	Feb. 14	1000	261	42	702
Furnace grate.....	T. Kirkwood.....	388,204	Aug. 21	1564	416	44	87
Furnace grate.....	T. Kirkwood.....	390,376	Oct. 2	253	63	45	54
Furnace grate.....	T. Kirkwood.....	393,307	Nov. 20	1645	434	45	929
Furnace grate.....	T. H. Sears.....	394,545	Dec. 11	1204	313	45	1308
Furnace grate.....	L. M. Woodcock.....	381,410	June 12	856	{ 222 223 }	43	1292
Furnace-mouths. Feed-water heater and lining for.....	B. B. Lamprey and A. C. Bugbee.....	388,367	Aug. 21	1827	483	44	937
Furnace-protecting.....	F. W. Gordon.....	379,694	Mar. 20	1225	325	42	1213
Furnace-stack.....	J. Heatley.....	393,332	Nov. 20	1688	445	45	938
Furnaces. Air-feeding device for.....	G. R. Uridge.....	393,800	Dec. 4	92	26	45	1090
Furnaces. Air-injecting device for boiler.....	E. B. Cornell.....	380,475	Apr. 3	248	68	43	51
Furnaces and stoves. Automatic regulator for.....	E. G. and A. B. Stevens.....	388,087	Aug. 21	1357	{ 366 367 }	44	849
Furnaces. Apparatus for charging and drawing.....	S. T. Wellman.....	394,419	Dec. 11	1015	266	45	1274
Furnaces. Apparatus for charging and drawing.....	S. T. Wellman.....	394,420	Dec. 11	1017	267	45	1275
Furnaces. Apparatus for charging billets, bars, &c., into.....	F. H. Daniels.....	385,248	June 26	2112	540	43	1551
Furnaces. Apparatus for charging billets, bars, &c., into.....	F. H. Daniels.....	385,249	June 26	2116	540	43	1555
Furnaces. Apparatus for charging billets, bars, &c., into.....	F. H. Daniels.....	385,250	June 26	2118	541	43	1556
Furnaces. Apparatus for charging billets or bars into heating.....	F. H. Daniels.....	385,251	June 26	2120	541	43	1556
Furnaces. Apparatus for charging plates and bars into.....	P. Patterson.....	376,828	Jan. 24	1613	{ 422 423 }	42	330
Furnaces. Apparatus for heating blast for shaft.....	J. L. Thomson.....	377,819	Feb. 14	735	186	42	649
Furnaces. Combination mechanism for charging and drawing.....	S. T. Wellman.....	394,421	Dec. 11	1018	267	45	1275
Furnaces. Device for constructing arches or centers for.....	A. Farley.....	376,520	Jan. 17	1131	296	42	231
Furnaces. Device for mixing air and gas for.....	H. Schlumme.....	385,072	June 26	1860	475	43	1502
Furnaces. Draft appliance for steam-boiler.....	C. D. Mosher and G. W. Brown.....	390,568	Oct. 2	440	114	45	89
Furnaces. Evaporating-pan for hot-air.....	F. Kerman, Jr.....	385,716	July 10	575	149	44	119
Furnaces. Feeding air to.....	H. Barr.....	390,198	Oct. 2	3	1	45	3
Furnaces. Fore-hearth for lead-smelting.....	W. A. Koneman.....	390,785	Oct. 9	817	{ 217 218 }	45	168
Furnaces. Heat-regulator for.....	L. D. Farra.....	376,644	Jan. 17	1321	348	42	267
Furnaces. Heating-tube for.....	H. Tilden.....	378,910	Mar. 6	68	20	42	980
Furnaces. Hydrocarbon-burner for.....	A. Heberer.....	384,524	June 12	1027	263	43	1324
Furnaces. Stationary grate for.....	W. McClave.....	393,843	Dec. 4	158	43	45	1102
Furniture. Article of.....	J. Berkey.....	380,741	Apr. 10	657	181	43	140
Furniture, &c. Base or support for.....	A. Green.....	389,457	Sept. 11	1001	268	44	1270
Furniture. Corner brace or bracket for.....	F. Vornbrock.....	383,841	May 29	2945	779	43	1113
Furniture. Folding.....	E. G. Chormann.....	392,407	Nov. 6	346	85	45	659
Furniture. Folding.....	G. H. Strong.....	390,815	Oct. 9	800	228	45	176
Furniture. School.....	O. S. Garretson.....	379,387	Mar. 13	758	205	42	1115
Furniture. School.....	O. S. Garretson.....	379,388	Mar. 13	759	205	42	1116
Furniture. Seat or back fastening for.....	J. M. Sander.....	378,219	Feb. 21	1311	348	42	770
Furniture. Upholstered.....	F. G. Johnson.....	384,259	June 12	629	169	43	1251
Fuse-cap.....	W. H. Frazer.....	392,915	Nov. 13	1082	280	45	811
Fuse-cutter and cap-crimper.....	A. Vannatter and A. J. August.....	376,493	Jan. 17	1090	286	42	224
Fuse. Electric.....	P. G. Gardner.....	377,851	Feb. 14	776	198	42	657
Fuse. Electrical.....	J. Macbeth.....	394,192	Dec. 11	669	179	45	1208
Fuse for projectiles. Contact.....	J. W. Graydon.....	382,927	May 1	511	131	43	607
Fuse-lighter.....	W. H. Randall.....	388,716	Aug. 28	2317	623	44	1038
Fuse. Magneto-electric.....	E. L. Zalinski.....	384,662	June 19	1231	325	43	1371
Fuse. Perennsion.....	W. Lorenz.....	381,264	Apr. 17	1459	393	43	299
Fuse. Shell.....	T. Nordenfelt.....	379,025	Mar. 6	242	68	42	1011
Fuse. Shell.....	T. Nordenfelt.....	379,716	Mar. 20	1255	335	42	1220
Fuse. Shell.....	T. Nordenfelt.....	381,717	Apr. 24	2130	.....	43	450
Fuse. Shell.....	E. L. Zalinski.....	384,664	June 19	1233	325	43	1372

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Gag-runner .....	H. B. Maxwell .....	381,400	Apr. 17	1654	411	43	339
Gage:							
See Bit-gage.	Micrometer-gage.						
Boot-strap gage.	Milk-gage.						
Carpenter's gage.	Planer-gage.						
Carpenter's framing-gage.	Pressure-gage.						
Centering-gage.	Rafter-gage.						
Chisel-gage.	Saw-bench gage.						
Combination gage.	Saw-set gage.						
Depth-gage.	Saw-table gage.						
Double-gage.	Shingler's gage.						
Extension-gage.	Sbingling-gage.						
Floor-board gage.	Siding-gage.						
Hinge-gage.	Sirup-gage.						
Lumber-gage.	Slip and shrinkage gage.						
Machine-gage.	Surface-gage.						
Marking-gage.	Surface and scratch gage.						
Mercury pressure-gage.	Water-gage.						
Weather-boarding gage.							
Gage and square. Combined.	E. K. Peckwith .....	387,966	Aug. 14	1168	317	44	805
Gage-wheel .....	D. H. Carpenter .....	377,800	Feb. 14	713	181	42	646
Gaiter. Congress.	L. J. Loud .....	385,518	July 3	276	71	44	56
Galley .....	P. Shiedewend and J. L. Lee .....	389,607	Sept. 18	1231	322	44	1329
Galvanic battery .....	H. J. Brewer .....	380,084	Mar. 27	1833	488	42	1340
Galvanic battery .....	H. J. Brewer .....	380,085	Mar. 27	1834	488	42	1341
Galvanic battery .....	H. J. Brewer .....	380,855	Apr. 10	829	225	43	171
Galvanic battery .....	H. J. Brewer .....	380,856	Apr. 10	830	225	43	172
Galvanic battery .....	H. J. Brewer .....	391,505	Oct. 23	856	497	45	341
Galvanic battery .....	C. A. Brown and M. M. Clark .....	384,958	June 26	1665	433	43	1462
Galvanic battery .....	P. C. Burns .....	393,814	Dec. 4	115	32	45	1044
Galvanic battery .....	H. Cassard .....	388,181	Aug. 21	1533	408	41	880
Galvanic battery .....	C. R. B. Claflin, Jr., and J. W. Flagg .....	381,336	Apr. 17	1554	419	43	319
Galvanic battery .....	H. B. Cox .....	383,706	May 29	2732	718	43	1072
Galvanic battery .....	A. K. Eaton .....	389,140	Sept. 4	508	.....	41	1167
Galvanic battery .....	T. M. Foote .....	377,745	Feb. 14	598	154	42	622
Galvanic battery .....	J. L. Getbins .....	393,639	Nov. 27	2155	564	45	1339
Galvanic battery .....	E. M. Hewell .....	387,642	Aug. 14	680	176	41	709
Galvanic battery .....	E. M. Hewell .....	387,643	Aug. 14	681	176	44	710
Galvanic battery .....	D. Humphreys .....	390,674	Oct. 9	659	177	45	139
Galvanic battery .....	D. Humphreys .....	390,675	Oct. 9	661	177	45	139
Galvanic battery .....	D. Humphreys .....	390,676	Oct. 9	662	177	45	140
Galvanic battery .....	D. Humphreys .....	390,677	Oct. 9	664	177	45	140
Galvanic battery .....	A. V. Meserole .....	386,149	July 17	1204	321	44	251
Galvanic battery .....	A. V. Meserole .....	386,150	July 17	1207	321	44	252
Galvanic battery .....	A. V. Meserole .....	388,430	Aug. 28	1910	510	44	960
Galvanic battery .....	C. E. O'Keenan .....	380,589	Apr. 3	427	121	43	87
Galvanic battery .....	H. L. Roosevelt .....	393,395	Nov. 27	1780	470	45	964
Galvanic battery .....	P. H. Root .....	393,123	Nov. 20	1381	360	45	877
Galvanic battery .....	A. Schanschieff .....	379,911	Mar. 20	1576	415	42	1280
Galvanic battery .....	G. H. Sloan .....	382,738	May 15	1300	341	43	778
Galvanic battery .....	E. E. Starr .....	385,147	June 26	1964	502	43	1521
Galvanic battery .....	D. Urquhart and B. Nicholson .....	377,340	Jan. 31	2347	680	42	478
Galvanic battery .....	H. Walter .....	378,121	Feb. 21	1164	303	42	742
Galvanic battery .....	H. Walter and W. E. H. Marsh .....	378,122	Feb. 21	1165	303	42	742
Galvanic battery .....	G. T. Woods .....	387,839	Aug. 14	961	250	44	764
Galvanic battery .....	R. D. Wright .....	394,670	Dec. 18	1425	372	45	1364
Galvanic-battery excitant.	T. P. Whittier .....	383,263	May 22	2073	544	43	939
Galvanic-battery fluid.	H. J. Von Metzdratt .....	383,677	May 29	2681	.....	43	1063
Galvanic-battery jar .....	B. Overlack .....	387,654	Aug. 11	697	179	44	713
Galvanic cell .....	W. Frishmuth .....	380,430	Apr. 3	177	49	43	36
Galvanometer .....	I. W. Chisholm .....	390,067	Sept. 25	1926	508	44	1464
Galvanometer .....	R. E. B. Crompton and G. Kapp .....	383,444	May 29	2335	620	43	993
Galvanometer .....	P. Lange .....	386,992	July 31	2468	618	41	512
Galvanometer .....	P. Lange .....	386,993	July 31	2469	649	41	512
Galvanometer .....	E. Weston .....	392,477	Nov. 6	447	113	45	679
Galvanometer .....	E. Weston .....	392,478	Nov. 6	449	113	45	679
Galvanometer. Reflecting.	E. Weston .....	392,476	Nov. 6	445	112	45	678
Galvanometer. Standard tangent.	E. Weston .....	389,274	Sept. 11	730	185	44	1218
Galvanometers. Differential expansion device for.	W. H. Bristol and W. E. Geyer .....	383,095	May 22	1829	480	43	891
Game .....	F. H. Bristow .....	393,291	Nov. 20	1628	427	45	926
Game .....	W. C. Dunn .....	384,240	June 12	598	162	43	1246
Game .....	W. Fowler .....	387,820	Aug. 7	33	7, 8	44	578
Game .....	B. F. Kellogg .....	391,715	Oct. 23	2140	579	45	140
Game .....	G. P. Lathrop .....	385,190	June 26	2025	518	43	1536
Game .....	R. A. Patterson .....	387,440	Aug. 7	358	92	44	643
Game apparatus .....	D. Brooks, Jr. .....	395,261	Dec. 25	2394	613	45	1557
Game apparatus .....	F. F. Gilford .....	386,007	July 10	989	264	44	202
Game apparatus .....	J. W. V. Rawlins .....	391,273	Oct. 16	1510	408	45	311
Game-board .....	C. E. Duryea .....	384,195	June 5	524	142	43	1223
Game-board .....	J. A. Martin .....	379,174	Mar. 6	440	124	42	1050
Game. Card .....	A. M. Fitch .....	393,969	Dec. 4	345	93	45	1137
Game-counter .....	C. Fearon .....	380,428	Apr. 3	176	48	43	36
Game-counter .....	F. King .....	387,422	Aug. 7	328	84	44	676
Game-counter .....	F. G. Nash .....	381,707	June 19	1306	341	43	1285
Game-counter .....	N. Rosenwasser and F. Rosewater .....	381,425	Apr. 17	1691	454	43	346
Game-counter .....	J. A. Yarger .....	394,900	Dec. 18	1814	469	45	1440
Game of draughts to be played by three persons, and apparatus therefor.	J. Hyde .....	378,331	Mar. 6	102	29	42	986
Game of skill .....	G. H. Monks .....	383,653	May 29	2648	701	43	1056
Game-scoring tablet and indicating device .....	A. Küpper .....	380,845	Sept. 18	1577	418	44	1387
Gang-board. Automatic registering .....	H. B. Kirk .....	384,370	June 12	802	209	43	1280

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Gang-edgers. Shifter for .....	F. W. Cook .....	389,443	Sept. 11	981	{ 262 263 }	{ 41	1267
Gang-plank for vessels .....	F. W. Sheild .....	386,355	July 17	1497	397	44	306
Gang-trimmer. Automatic .....	J. B. St. Louis .....	387,604	Aug. 7	624	162	44	692
Gangway. Stock .....	H. T. Keenan .....	378,319	Feb. 21	1468	384	42	797
Garbage-cremating furnace .....	A. Vivartias .....	390,922	Oct. 9	1013	{ 266 267 }	{ 45	205
Garment .....	P. T. Forsyth .....	390,765	Oct. 9	789	210	45	163
Garment-clasp .....	D. L. and A. D. Smith .....	380,951	Apr. 10	977	259	43	199
Garment or coat hanger .....	G. Pavlik .....	376,207	Jan. 10	639	183	42	141
Garment-protector .....	S. L. Salomon .....	376,210	Jan. 10	692	184	42	142
Garment-stand .....	O. Borchert .....	393,960	Dec. 4	330	89, 90	45	1135
Garment-stay .....	E. C. Bowling .....	378,080	Feb. 21	1104	289	42	730
Garment-stay .....	B. Moschowitz .....	386,714	July 24	2025	534	44	419
Garment-stay .....	E. K. Warren .....	389,993	Sept. 25	1816	480	44	1442
Garment-stay .....	B. F. Wheeler and F. W. MacQueten.	388,936	Sept. 4	194	51	44	1110
Garment-stays. Apparatus for making .....	E. C. Bowling .....	385,996	July 10	977	{ 260 261 }	{ 44	200
Garment-stays. Pocket for .....	L. Moschowitz .....	387,958	Aug. 14	1159	214	41	803
Garment-stretcher .....	F. E. Bailey .....	381,204	Apr. 17	1370	366	43	282
Garment-stretcher .....	F. Cadmus .....	378,764	Feb. 28	2107	556	42	929
Garment-stretcher .....	H. S. Folgar .....	387,349	Aug. 7	222	58	44	614
Garment-supporter .....	E. G. Babcock .....	392,397	Nov. 6	331	82	45	656
Garment-supporter .....	J. H. Bennett .....	389,918	Sept. 25	1714	453	44	1422
Garment-supporter .....	F. E. Bright .....	385,237	June 26	2095	537	43	1551
Garment-supporter .....	J. N. Faust .....	393,550	Nov. 27	2024	530	45	1014
Garment-supporter .....	B. J. Greely .....	390,775	Oct. 9	807	214	45	166
Garment-supporter .....	S. Hohenstein .....	391,713	Oct. 23	2136	578	45	439
Garment-supporter .....	J. P. Lindsay .....	392,042	Oct. 30	2028	714	45	546
Garment-supporter .....	A. G. Lull .....	383,893	June 5	66	20	43	1133
Garment-supporter .....	E. Pickhardt .....	392,634	Nov. 13	677	169	45	731
Garment-supporter .....	C. A. Preston .....	378,147	Feb. 21	1212	316	42	750
Garment-supporter .....	C. A. Preston .....	378,148	Feb. 21	1213	316	42	750
Garment-supporter .....	C. A. Preston .....	383,827	May 29	2926	773	43	1109
Garment. Ventilated .....	D. W. Crosby .....	394,558	Dec. 18	1232	{ 321 322 }	{ 45	1328
Garment. Ventilated .....	E. S. Helwitz .....	385,306	June 26	2212	567	43	1573
Garment. Waist .....	V. Ulke .....	377,339	Jan. 31	2345	679	42	478
Garments. Method of and device for fitting .....	E. Stahl .....	376,558	Jan. 17	1176	309	42	240
Garments. Reversible vest for ladies' .....	S. Woolf .....	383,550	May 29	2514	663	43	1026
Garments. Shoulder-form for .....	J. J. Byers .....	389,637	Sept. 18	1277	336	44	1327
Gas and air commingler .....	B. S. Dunn .....	379,769	Mar. 20	1331	{ 355 356 }	{ 42	1234
Gas and air. Device for mixing .....	F. B. Denny .....	382,076	May 1	301	79, 80	43	568
Gas and air fuel mixing chambers. Sectional hood for .....	C. H. Miller .....	381,632	Apr. 24	2004	526	43	425
Gas and electric-light fixture. Combined .....	S. B. H. Vance .....	376,617	Jan. 17	1273	333	42	258
Gas and electric-light fixture. Combined .....	S. B. H. Vance .....	383,158	May 22	1915	501	43	908
Gas and electric-light fixture. Combined .....	S. B. H. Vance .....	383,332	May 22	2162	572	43	955
Gas and other fluid pressure controlling apparatus .....	H. W. and A. F. Cole .....	376,636	Jan. 17	1309	344	42	265
Gas apparatus .....	W. Remyson and H. Burgess .....	393,662	Nov. 27	2190	574	45	1046
Gas. Apparatus for charging liquids with carbonic acid .....	O. Bräuder .....	390,562	Oct. 2	516	135	45	104
Gas. Apparatus for manufacturing .....	M. Gross .....	392,553	Nov. 6	551	139	45	700
Gas. Apparatus for manufacturing .....	M. Gross .....	392,554	Nov. 6	552	{ 139 140 }	{ 45	700
Gas. Apparatus for manufacturing .....	M. Gross .....	392,555	Nov. 6	553	140	45	701
Gas. Apparatus for manufacturing .....	H. C. Rew .....	389,103	Sept. 4	442	116	44	1156
Gas. Apparatus for manufacturing water .....	G. S. Dwight .....	388,849	Sept. 4	60	16, 17	44	1084
Gas. Apparatus for the manufacture of .....	V. L. Elbert .....	385,458	July 24	1669	441	44	353
Gas. Apparatus for the manufacture of .....	T. G. Hall .....	389,567	Sept. 18	1161	304	44	1307
Gas. Apparatus for the manufacture of .....	A. C. Humphreys .....	378,095	Feb. 21	1123	{ 293 294 }	{ 42	734
Gas. Apparatus for the manufacture of .....	A. G. Meeze .....	382,371	May 8	742	{ 187 188 }	{ 43	659
Gas. Apparatus for the manufacture of .....	A. G. Meeze .....	382,375	May 8	751	189	43	661
Gas. Apparatus for the manufacture of .....	H. C. Rew .....	389,104	Sept. 4	446	{ 116 117 }	{ 44	1156
Gas. Apparatus for the manufacture of .....	H. C. Rew .....	389,105	Sept. 4	451	{ 117 118 }	{ 44	1157
Gas. Apparatus for the manufacture of .....	T. B. Stillman .....	377,694	Feb. 7	517	132	42	592
Gas. Apparatus for the manufacture of .....	S. T. Wellman and G. W. Goetz .....	376,835	Jan. 21	1627	425	42	333
Gas. Apparatus for the manufacture of .....	S. T. Wellman and G. W. Goetz .....	376,836	Jan. 21	1629	426	42	333
Gas. Apparatus for the manufacture of water .....	J. M. Rose .....	391,387	Oct. 16	1694	448	45	340
Gas. Apparatus for washing and purifying illuminating .....	J. H. R. Dismore .....	383,635	May 29	2620	693	43	1050
Gas-bracket .....	J. Wright .....	384,302	June 12	693	185	43	1263
Gas-burner .....	E. Bourne .....	380,015	Mar. 27	1734	465	42	1321
Gas-burner .....	H. A. Brognard .....	379,046	Mar. 6	271	78, 79	42	1017
Gas-burner .....	G. K. Cooke .....	379,562	Mar. 20	1024	274	42	1174
Gas-burner .....	E. B. Cutten .....	394,101	Dec. 4	532	143	45	1173
Gas-burner .....	H. Delmas-Azéma .....	386,113	July 17	1150	305	41	239
Gas-burner .....	A. J. English .....	382,695	May 15	1244	325	43	766
Gas-burner .....	D. Z. Evans .....	394,645	Dec. 18	1381	361	45	1355
Gas-burner .....	J. E. Gill and T. M. Foley .....	390,660	Oct. 9	643	172	45	136
Gas-burner .....	S. Henry .....	385,669	July 3	501	129	44	97
Gas-burner .....	W. M. Jackson .....	380,802	Apr. 10	751	206	43	157
Gas-burner .....	W. M. Jackson .....	381,378	Apr. 17	1623	433	43	332
Gas-burner .....	J. A. Klobb .....	391,537	Oct. 23	1899	510	45	390
Gas-burner .....	G. W. Lutz .....	392,211	Nov. 6	47	13	45	604
Gas-burner .....	J. McHenry .....	386,485	July 24	1703	450	44	359
Gas-burner .....	J. H. McQuaid .....	391,175	Oct. 16	1403	374	45	285
Gas-burner .....	P. Menges .....	377,494	Feb. 7	221	53	42	538



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Gas-burner.	E. Moreau	389,757	Sept. 18	1457	{ 381 382 }	{ 44	1363
Gas-burner.	J. N. Pew	393,077	Nov. 20	1318	344	45	864
Gas-burner.	C. B. Todd	377,787	Feb. 14	87	174	42	641
Gas-burner.	C. W. Young	379,435	Mar. 13	824	223	42	1130
Gas-burner. Argand	E. Beach	383,337	May 22	2168	573	43	956
Gas-burner. Argand	E. Beach	383,338	May 22	2170	{ 573 574 }	{ 43	956
Gas-burner. Atmospheric.	H. J. Bell	390,055	Sept. 25	1909	504	44	1461
Gas-burner. Automatic electric	E. E. Bailey	382,249	May 1	541	138	43	613
Gas-burner. Electric	J. Y. Parke	379,977	Mar. 27	1671	446	42	1309
Gas-burner for heating purposes	J. Hanck	391,606	Oct. 23	1990	536	45	409
Gas-burner for stoves	C. M. Gummer	391,365	Oct. 16	1661	439	45	333
Gas-burner. Furnace	J. S. Andrews and J. S. Rodgers	392,175	Nov. 6	1	1	45	595
Gas-burner. Heating.	A. J. Doty	390,352	Oct. 2	218	57	45	46
Gas-burner. Incandescent.	H. J. Bell	390,056	Sept. 25	1910	504	44	1461
Gas-burner. Incandescent.	J. Mactear	372,699	Feb. 28	2023	534	42	914
Gas-burner. Incandescent.	W. J. McNorton	389,588	Sept. 18	1199	314	44	1313
Gas-burner. Incandescent.	E. Moreau	387,099	July 31	2615	687	44	539
Gas-burner. Incandescent.	J. S. Sellon	377,502	Feb. 7	239	58	42	541
Gas burner. Natural.	G. K. Detwiler	386,971	July 31	2436	641	44	506
Gas-burner. Regenerative	J. W. Baker	387,844	Aug. 14	969	252	41	766
Gas-burner. Regenerative	A. J. English	395,125	Dec. 25	2172	560	45	1518
Gas-burner. Regenerative	J. S. Ilorry	392,434	Nov. 6	381	94	45	666
Gas-burner. Regenerative	W. S. Mead. (Reissue)	10,899	Feb. 7	570	147	42	603
Gas-burner. Regenerative	H. Schwidlinsky	392,527	Nov. 6	514	{ 129 130 }	{ 45	693
Gas-burner. Regenerative	W. Stern	391,866	Oct. 30	2368	643	45	495
Gas-burner regulator	W. M. Jackson	380,603	Apr. 10	752	206	43	158
Gas-burner tip	W. M. Jackson	386,588	July 24	1854	490	44	386
Gas-burner tip	W. M. Jackson	386,984	July 31	2459	646	44	510
Gas-burners. Apparatus for automatically lighting and extinguishing	N. H. Shaw	393,271	Nov. 20	1594	{ 418 419 }	{ 45	920
Gas-burners. Automatic feed-regulator for.	C. D. Harris	393,068	Nov. 20	1927	319	45	846
Gas-burners. Globe for	C. C. Morley and H. C. Hinchcliff	391,758	Oct. 23	2193	591	45	451
Gas-burners. Making incandescent	E. Moreau	392,129	Oct. 30	2770	752	45	574
Gas-burners. Pressure-regulator for	O. W. Bennett	392,489	Nov. 6	461	116	45	682
Gas-burners. Regulating-valve for.	G. B. Snow	382,566	May 8	1046	266	43	719
Gas-burners. Safety attachment for	E. R. Pruitt	381,484	Apr. 17	1784	475	43	364
Gas-burning torch	J. R. Smith	383,154	May 22	1911	499	43	908
Gas compressing and refrigerating apparatus.	L. Block	390,636	Oct. 9	893	236	45	182
Gas-compressors. Oiling apparatus for	F. Shlaudemann	378,941	Mar. 6	114	33	42	989
Gas-condenser and tar-separator	F. Breidl	388,474	Aug. 28	1972	529	44	972
Gas-conduit joint.	J. Schinneller	376,917	Jan. 24	1737	456	42	354
Gas. Device for heating coils and pipes by	W. M. Brown	377,015	Jan. 31	1877	494	42	339
Gas-distribution. System of	G. Westinghouse, Jr	388,163	Aug. 21	1506	401	44	875
Gas. Electric machine for lighting and extinguishing	G. E. Thaxter	392,701	Nov. 13	771	195	45	749
Gas-engine	H. T. Dawson	392,191	Nov. 6	21	6	45	599
Gas-engine	E. Delamare-Deboutteville and L. P. C. Malandin. (Reissue.)	10,951	July 31	2782	{ 727 728 }	{ 44	566
Gas-engine.	H. Hartig	391,528	Oct. 23	1886	506	45	387
Gas-engine.	L. N. Hopkins	379,397	Mar. 13	772	208	42	1118
Gas-engine	E. Korting	377,623	Feb. 7	407	103	42	573
Gas-engine	L. H. Nash	386,208	July 17	1276	{ 340 341 }	{ 44	265
Gas-engine	L. H. Nash	386,210	July 17	1291	343	44	267
Gas-engine	L. H. Nash	386,211	July 17	1296	344	44	268
Gas-engine	J. Noble	379,807	Mar. 20	1397	572	43	1248
Gas-engine	H. K. Shanck	376,212	Jan. 10	693	184	42	142
Gas-engine	H. K. Shanck	390,710	Oct. 9	711	188	45	150
Gas-engine	W. S. Sharpneck	391,426	Oct. 23	1831	490	45	376
Gas-engine	C. Sintz	383,775	May 29	2844	{ 748 749 }	{ 43	1093
Gas-engine	H. Skinner	389,608	Sept. 18	1233	322	44	1319
Gas-engine	R. F. Smith	377,962	Feb. 14	940	245	42	691
Gas-engine	G. W. Stewart	381,488	Apr. 17	1790	{ 476 477 }	{ 43	365
Gas-engine speed-regulator	J. Bradley	386,233	July 17	1335	352	44	275
Gas engines. Anti-fluctuator for	J. R. Daly	392,109	Oct. 30	2744	746	45	569
Gas-engines. Igniting the charges in.	L. H. Nash	386,214	July 17	1304	346	44	269
Gas-engines. Ignitor and supply-valve for	L. H. Nash	386,216	July 17	1312	347	44	271
Gas-engines. Ignitor for	L. H. Nash	386,212	July 17	1299	345	44	268
Gas-engines. Ignitor for	L. H. Nash	386,213	July 17	1301	345	44	269
Gas-engines. Ignitor for	L. H. Nash	386,215	July 17	1308	346	44	270
Gas-engines. Operating	L. H. Nash	386,209	July 17	1284	{ 342 343 }	{ 44	267
Gas-enriching apparatus	J. H. Amies	378,418	Feb. 28	1613	425	42	833
Gas-extinguisher. Automatic	M. Siersdorfer	383,497	May 29	2431	646	43	1011
Gas-extinguishing apparatus. Automatic	R. Howard	392,921	Nov. 13	1090	283	45	813
Gas-fixture	M. P. Coleman	392,993	Nov. 20	1212	315	45	843
Gas-fixture. Cock for	J. Prentice	385,134	June 26	1946	497	43	1520
Gas from coal. Manufacturing illuminating	J. H. R. Dinsmore	383,634	May 29	2618	693	43	1050
Gas from gas-mains. Means for carrying off escaping	J. W. Ellis	378,544	Feb. 28	1797	475	42	871
Gas from oil and steam. Manufacturing	A. G. Meeze	382,372	May 8	746	188	43	660
Gas from waste-pipes of sinks. Device for preventing the escape of	H. Stone	392,645	Nov. 13	693	174	45	733
Gas-fuel burner.	C. H. Miller	380,913	Apr. 10	918	246	43	188
Gas-furnace. Regenerative	G. Pietzka	389,009	Sept. 4	290	77	44	1128
Gas-furnace. Regenerative	O. B. Weber	392,897	Nov. 13	1058	{ 273 274 }	{ 45	807
Gas-furnace. Retort.	D. D. Flemming	385,854	July 10	781	207	44	159
Gas-generator.	A. Weyer	377,793	Feb. 14	704	177	42	644

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Gas-generator for locomotives.	A. C. Huidekoper.	383,395	May 22	2260	601	43	972
Gas-generators. Apparatus for supplying liquids in.	A. S. Hickley.	386,584	July 24	1850	489	44	385
Gas-governor.	B. F. Day.	384,132	June 5	428	119	43	1203
Gas-governor.	G. A. Gessner.	386,809	July 31	2175	574	44	457
Gas-governor.	F. G. Johnson.	392,340	Nov. 6	240	61	45	640
Gas-governor.	E. Williams and G. Fewlass.	392,089	Oct. 30	2712	737	45	563
Gas-governor. Automatic.	F. Bredel.	380,743	Apr. 10	659	182	43	141
Gas governor or pressure-regulator.	W. H. Bradley.	390,064	Sept. 25	1923	507	44	1464
Gas-holder.	T. F. Rowland.	393,724	Nov. 27	2274	596 597	45	1063
Gas-holder guide-wheel carriage.	J. F. Mayer.	386,410	July 17	1593	418	44	328
Gas incandescents. Manufacture of.	H. J. Bell.	390,057	Sept. 25	1911	504	44	1461
Gas key and lighter.	J. B. Bloomingdale.	375,913	Jan. 3	254	69	42	53
Gas-light extinguisher. Automatic.	L. Heck.	381,370	Apr. 17	1611	431	43	390
Gas-light governor. Automatic.	C. Greiner and J. Grupp.	378,050	Feb. 14	1060	277	42	714
Gas-light shield and reflector.	A. L. Boone.	371,323	Apr. 17	1538	415	43	316
Gas lighter and extinguisher. Electric.	G. L. Hogan.	379,396	Mar. 13	770	208	42	1118
Gas lighter and extinguisher. Electrical.	G. L. Hogan.	389,151	Sept. 4	536	135	44	1171
Gas-lighter. Electric.	H. A. Cleverly.	392,665	Nov. 13	723	183	45	739
Gas-lighter. Electric.	J. Fick.	377,553	Feb. 7	307	78	42	553
Gas-lighter. Electric.	C. H. Haskins.	393,304	Nov. 20	1640	433	45	928
Gas-lighter. Electric.	C. W. Holtzer.	382,001	May 1	176	46	43	546
Gas-lighter. Electric.	J. H. Lehman.	392,440	Nov. 6	390	96	45	668
Gas-lighter. Electric.	J. J. McGowen.	388,294	Aug. 21	1703	454	44	916
Gas lighting and extinguishing apparatus. Automatic.	N. H. Shaw.	393,525	Nov. 27	1984	519	45	1005
Gas lighting and extinguishing device. Automatic.	R. F. Bridewell.	388,177	Aug. 21	1526	406 407	44	879
Gas lighting and extinguishing. System of electrical.	H. T. Downs.	389,692	Sept. 18	1367	358	44	1345
Gas-lighting apparatus. Electric.	C. W. Holtzer.	378,677	Feb. 28	1993	527	42	909
Gas-lighting burner. Electric.	L. S. White.	377,505	Feb. 7	242	59	42	541
Gas-lighting device and gas-cock. Electric.	W. Tag and S. C. Smith.	384,796	June 19	1424	373	43	1410
Gas-lighting device. Electric.	W. Tag and S. C. Smith.	389,421	Sept. 11	945	248	44	1260
Gas-lighting torches. Taper slide or holder for.	J. F. Cunningham.	380,094	Mar. 27	1846	491	42	1343
Gas-log and fire-place.	Q. S. Backus.	390,743	Oct. 9	764	202 203	45	158
Gas. Machine for lighting and extinguishing.	G. E. Thaxter.	381,440	Apr. 17	1715	459 460	43	352
Gas-machines. Pressure-regulator for.	O. W. Bennett.	380,273	Mar. 27	2083	558	42	1391
Gas-main.	H. C. Campbell.	392,406	Nov. 6	345	85	45	650
Gas-mains. Automatic cut-off for.	G. W. McKenzie.	394,597	Dec. 18	1301	341	45	1342
Gas-mains. Automatic valve or shut-off for.	G. W. McKenzie.	375,760	Jan. 3	55	16	42	14
Gas-mains. Means for detecting leakage from.	S. R. Brick.	378,283	Feb. 21	1420	371 372	42	787
Gas-mains. Sliding joint for.	D. M. Marquis.	381,803	Apr. 24	2242	587	43	471
Gas-mains. Water-trap for.	A. Chambers.	380,860	Apr. 10	835	226 227	43	173
Gas. Making.	H. C. Rew.	389,106	Sept. 4	458	118 119	44	1158
Gas. Making coal.	A. G. Meeze.	382,373	May 8	747	189	43	661
Gas. Manufacture of.	W. W. Dasheill.	376,944	Jan. 24	1774	466 467	42	362
Gas. Manufacture of.	H. M. Pierson.	392,458	Nov. 6	421	104	45	673
Gas. Manufacturing.	G. S. Dwight.	387,676	Aug. 14	727	187 188	44	719
Gas. Manufacturing.	A. G. Meeze.	382,374	May 8	749	189	43	661
Gas. Manufacturing.	G. M. Westman.	393,134	Nov. 20	1395	364 365	45	880
Gas. Manufacturing water.	R. Boeklen.	378,490	Feb. 28	1736	455	42	857
Gas. Manufacturing water.	F. C. Kniese.	377,564	Feb. 7	319	82	42	556
Gas. Manufacturing water.	J. M. Rose.	391,386	Oct. 16	1692	448	45	339
Gas. Manufacturing water.	T. B. Stillman.	377,695	Feb. 7	518	133	42	593
Gas-meter.	A. Langlais.	386,994	July 31	2470	649	44	512
Gas-meter.	F. M. Towl.	377,967	Feb. 14	947	247	42	693
Gas. Mixing and injecting apparatus for making.	M. Gross.	393,977	Dec. 4	356	96	45	1139
Gas-motor.	R. Boeklen.	384,673	June 19	1246	328	43	1374
Gas-motor engine.	N. A. Otto.	388,372	Aug. 21	1836	487 488	44	938
Gas-motor engine.	H. Williams.	386,949	July 31	2406	633	44	499
Gas-motor engines. Igniting apparatus for.	N. A. Otto.	386,929	July 31	2381	626	44	494
Gas or caloric engine.	A. Rollason.	391,338	Oct. 16	1620	429	45	326
Gas or caloric engine.	A. Rollason.	394,299	Dec. 11	841	223	45	1241
Gas or other fluids. Conduit for.	C. R. Shepler.	394,620	Dec. 18	1338	350	45	1348
Gas or vapor. Device for generating and burning.	M. Zeck.	378,411	Feb. 21	1602	421	42	824
Gas-pipes. Apparatus for cleaning and charged.	P. McGee.	380,910	Apr. 10	914	245	43	187
Gas-pressure governing apparatus.	F. H. Hambleton.	380,565	Apr. 3	391	112	43	80
Gas-pressure regulator.	J. W. Carter and J. Miller.	390,568	Oct. 2	524	137	45	105
Gas-pressure regulator.	M. W. Kidder.	376,313	Jan. 10	831	219	42	168
Gas-pressure regulator.	C. L. Rowland.	384,284	June 12	663	178	43	1257
Gas pressure-regulator and cut-off.	G. S. Faulkner.	384,967	June 26	1677	435	43	1465
Gas. Pressure-regulator for carbonic acid.	E. A. Scott.	375,837	Jan. 3	151	43	42	34
Gas-producers, &c. Poking-bar for.	J. H. Thomas.	387,021	July 31	2509	659	44	520
Gas protective extinguisher. Natural.	C. E. Scribner.	393,396	Nov. 27	1780	471	45	965
Gas-regulator. Automatic.	M. J. Amick. (Reissue).	10,901	Feb. 14	1088	286	42	720
Gas regulator or governor.	G. Porter.	387,181	July 31	2753	720	44	561
Gas-retort bench.	A. Coze.	388,953	Sept. 4	220	58	44	1114
Gas-retort lid.	Z. L. Chadbourne.	393,617	Nov. 27	2125	556	45	1033
Gas-saver.	O. W. Bennett.	389,633	Sept. 18	1271	335	44	1326
Gas-scrubber.	J. F. Allen.	389,785	Sept. 18	1495	394	44	1372
Gas-scrubber.	W. Morava.	388,903	Sept. 4	148	39	44	1100
Gas-service pipes. Automatic shut-off valve for.	J. S. Robinson.	379,128	Mar. 6	386	110	42	1038
Gas-stand. Portable.	E. S. Rich.	390,706	Oct. 9	705	187	45	148
Gas tip and pillar.	W. M. Jackson.	381,380	Apr. 17	1626	433	43	333
Gas-tips. Machine for slotting metallic.	W. Carey.	391,354	Oct. 16	1645	435	45	330

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Gas-trap. Sewer	H. C. Montgomery	382,656	May 8	1182	306	43	746
Gas-washer	A. Klönne	380,040	Mar. 27	1768	473	42	1327
Gas-works. Hydraulic main for	G. A. McIlhenny and T. G. Lansden	380,911	Apr. 10	916	245	43	187
Gases. Apparatus for mingling and combining	A. C. Lewis	378,326	Feb. 21	1481	387	42	799
Gases. Apparatus for testing mine	T. Shaw	394,214	Dec. 11	702	188	45	1214
Gases. Apparatus for testing mine	T. Shaw	394,215	Dec. 11	705	188	45	1214
Gases from liquids. Apparatus for removing	E. Luhmann	389,521	Sept. 11	1087	288	44	1286
Gases or liquids under pressure. Apparatus for transporting and transferring	J. E. Holmes	382,610	May 8	1115	286	43	732
Gases with electricity. Apparatus for treating noxious	H. Fewson	387,286	Aug. 7	122	32	44	596
Gaseous explosions as a motive force. Utilizing	T. H. Bolmer	379,674	Mar. 20	1192	316	42	1206
Gaseous fuel. Apparatus for the manufacture of	A. Thompson	388,465	Aug. 28	1960	526	44	970
Gaseous-fuel burner	W. T. Smith, G. A. Ely, and T. A. Bryan	380,359	Apr. 3	83	26	43	19
Gaseous fuel or illuminating gas. Apparatus for manufacturing	E. H. Shaw	378,940	Mar. 6	113	32, 33	42	988
Gasoline-can	W. W. Hutchins	377,520	Feb. 7	264	66	42	545
Gate:							
See Automatic gate. Hatchway-gate.							
Bridge-gate. Railway-gate.							
Car-gate. Railway-crossing gate.							
Dam-gate. Railway or farm gate.							
Elevator-gate. Railway safety-gate.							
End-gate. Railway-track gate.							
Farm-gate. Sliding gate.							
Feed-gate. Sliding or rolling gate.							
Fence-gate. Swinging gate.							
Flood-gate. Water gate.							
Folding and swing-ing gate. Wire gate.							
Gate	H. W. Alshouse	380,306	Apr. 3	1	1	43	3
Gate	G. H. Aylworth	384,552	June 12	1065	278	43	1331
Gate	M. L. Baker	386,250	July 17	1331	351	44	274
Gate	J. W. and D. H. Barnhard	380,418	Apr. 3	160	45	43	33
Gate	C. W. Benschoter	386,291	July 17	1416	374	44	290
Gate	F. W. Berning	382,068	May 1	286	76	43	566
Gate	J. H. Bradford	392,778	Nov. 13	897	229	45	773
Gate	A. H. Broad	391,734	Oct. 23	2164	585	45	445
Gate	J. Chandler	383,213	May 22	1992	522	43	924
Gate	H. C. Clivers	392,718	Nov. 13	795	202	45	754
Gate	J. Donnelly	384,136	June 5	436	121	43	1205
Gate	I. Dutton	392,319	Nov. 6	203	53	45	632
Gate	W. P. Elliott	390,074	Sept. 25	1933	510	44	1466
Gate	D. England	388,653	Aug. 28	2223	596	44	1020
Gate	M. F. Fink	382,601	May 8	1104	283	43	730
Gate	J. Flumer	384,750	June 19	1358	355	43	1396
Gate	G. Ford	381,063	Apr. 10	1156	308	43	232
Gate	J. A. Gehrett and J. W. Cartlich	392,024	Oct. 30	2528	707	45	540
Gate	I. Good	388,957	Sept. 4	76	20, 21	44	1087
Gate	J. N. Hatcher	381,694	Apr. 24	2090	547	43	443
Gate	D. E. Helton	390,124	Sept. 25	2014	337	44	1483
Gate	A. J. Hinkle	393,906	Dec. 4	257	70	45	1121
Gate	L. G. Knowles	385,517	July 3	275	71	44	56
Gate	R. B. Lyon	378,056	Feb. 14	1065	279	42	715
Gate	J. M. Marrs and H. W. Peery	391,418	Oct. 23	1736	463	45	356
Gate	D. McCarty	382,316	May 8	651	166	43	643
Gate	A. Miller	390,692	Oct. 9	687	183	45	145
Gate	J. A. Mil'ner	390,693	Oct. 9	688	183	45	145
Gate	M. B. Mills	387,435	Aug. 7	349	9, 90	44	641
Gate	M. B. and F. W. Mills	381,159	Apr. 17	1308	349	43	272
Gate	H. E. Moore	381,634	Apr. 24	2006	526	43	425
Gate	T. J. Morris	392,281	Nov. 6	153	39	45	623
Gate	M. Nolan	385,771	July 10	659	172	44	136
Gate	J. W. Park and W. R. Sanders	387,730	Aug. 11	812	210	44	734
Gate	J. W. Paulen	388,502	Aug. 28	2007	539	44	979
Gate	A. J. Powell and M. G. De Crow	391,385	Oct. 16	1691	447	45	339
Gate	G. P. Price	379,660	Mar. 20	1174	311	42	1203
Gate	W. H. Ringle	385,479	July 3	214	56	44	43
Gate	J. B. Rowe	388,789	Aug. 28	2421	653	44	1057
Gate	T. M. Russell	389,823	Sept. 18	1546	409	44	1382
Gate	J. W. Rutledge	380,636	Apr. 3	489	137	43	100
Gate	J. W. Rutledge	390,623	Oct. 2	587	155	45	118
Gate	R. H. Sayre	382,906	May 15	1521	398	43	823
Gate	U. L. Shaw	389,017	Sept. 4	309	81	44	1131
Gate	H. A. Spencer	381,592	Apr. 24	1948	513	43	414
Gate	J. Z. Stanley	381,859	Apr. 24	2346	514	43	490
Gate	P. Steele	383,920	June 5	111	32, 33	43	1142
Gate	J. A. Stevenson	394,736	Dec. 18	1533	401	45	1387
Gate	T. Tyson	392,937	Nov. 13	1112	288	45	817
Gate	P. Unfried	375,903	Jan. 3	232	63	42	49
Gate	H. P. Walker	380,232	Mar. 27	2034	543	42	1380
Gate	L. D. West	390,273	Oct. 2	103	29	45	24
Gate	W. R. White	378,275	Feb. 21	1407	368	42	785
Gate	W. R. White	392,655	Nov. 13	707	178	45	736
Gate	C. Wilson	378,564	Feb. 23	1830	482	42	876
Gate and step. Combined	P. H. Boyle	389,284	Sept. 11	751	191	44	1223
Gate-fastening	B. R. Coffey	390,569	Oct. 2	526	138	45	106
Gate roller and hinge	J. J. Swarthout	382,844	May 15	1435	377	43	806

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Gate-spring .....	T. Clough .....	378,191	Feb. 21	1268	335	42	760
Gates. Opening and closing drive .....	J. M. Gustin .....	389,219	Sept. 11	631	162	44	1199
Gates. Securing device for .....	W. R. White .....	392,297	Nov. 6	171	45	45	626
Gauntlet-pattern .....	J. C. Delamater .....	391,403	Oct. 23	1717	457	45	352
Gear. Compensating .....	T. Tucker .....	382,337	May 8	691	174	43	650
Gear-cutting machines. Dividing mechanism for .....	C. Spaulding .....	376,833	Jan. 24	1623	424	42	332
Gear for roving-frames, &c. Differential .....	A. T. Lawson and S. Dear .....	394,582	Dec. 18	1279	335	45	337
Gear. Friction .....	O. Zobel .....	387,198	July 31	2778	736	44	565
Gear-teeth. Cutter for cutting .....	T. S. Mower .....	390,982	Oct. 9	1111	293	45	232
Gear-tooth. Wooden .....	W. D. Gray, R. Birkholz, and E. Reynolds .....	376,522	Jan. 17	1133	296	42	232
Gear-wheel .....	C. H. Morgan .....	379,022	Mar. 6	238	67	42	1011
Gear-wheel .....	C. H. Morgan .....	380,454	Apr. 3	220	60	43	45
Gear-wheels. Machine for the manufacture of .....	F. Leman .....	380,498	Apr. 3	283	80 81 82	43	58
Gearing .....	H. Holloway .....	380,721	Apr. 10	627	172	43	134
Gearing .....	C. W. Isbell .....	391,535	Oct. 23	1886	509	45	390
Gearing .....	O. O. Kravik .....	386,594	July 24	1862	492	44	388
Gearing .....	F. H. Richards .....	390,097	Sept. 25	1975	526	44	1475
Gearing .....	F. J. Sprague .....	387,745	Aug. 14	830	214	44	737
Gearing. Frictional .....	G. F. Evans .....	392,111	Oct. 30	2745	746	45	519
Gelatine-coated sheets. Apparatus for soaking and stretching .....	F. W. Zimmer .....	390,429	Oct. 2	323	85	45	68
Gelatine-coated sheets. Apparatus for soaking and stretching .....	F. W. Zimmer .....	390,639	Oct. 2	610	162	45	123
Gelatine from bones. Separating .....	A. H. Hobson .....	394,082	Dec. 25	1957		45	1476
Gem-setting .....	W. G. Smith .....	384,399	June 12	838	218	43	12-8
Generator: See Ammonia-gas gene- Hydrocarbon-generator. rator. Steam-generator. Electric generator. Thermo-electric genera- Gas-generator. tor.							
Generators. Apparatus for returning water of condensation to .....	W. Irving .....	394,859	Dec. 18	1746	453	45	1428
Generators. Regulation of alternate-current .....	G. Pfannkuche .....	393,448	Nov. 27	1852	483	45	979
Generators. Regulator for alternating-current .....	R. P. Sellon and W. M. Morley .....	392,370	Nov. 6	285	73	45	649
Generators. Regulator or cut-off for .....	D. W. Smith .....	393,590	Nov. 27	2073	542	45	1024
Generators. Water-returning system for .....	W. Burnham .....	394,829	Dec. 18	1891	410	45	1418
Geographical globes. Apparatus for facilitating the reading of .....	P. R. Moréon and C. Durand .....	387,957	Aug. 14	1158	314	44	802
Gilding, &c. Adhesive powder for .....	M. J. Masters .....	388,984	Sept. 4	261		44	1123
Gill-boxes, &c. Device for lowering the fallers in .....	J. Stake .....	388,739	Aug. 28	2344	631	44	1044
Gimp-machine .....	G. Faustmann .....	385,048	June 26	1821	467	43	1194
Girder. Spiral .....	W. W. Green .....	379,217	Mar. 13	519	145	42	1070
Glass: See Drinking-glass. Perforated glass. Opera, field, or ma- Shaving-glass. rine glass.							
Glass. Apparatus for the manufacture of sheet .....	A. Thompson .....	385,735	July 10	601	155	44	124
Glass articles. Manufacture of ornamental .....	J. Reder .....	389,595	Sept. 18	1214	317 318	44	1316
Glass-beveling machine .....	F. Armbrust .....	380,737	Apr. 10	652	180	43	139
Glass-blowing apparatus .....	R. E. Donovan, F. Hazlett, and J. Johnston .....	386,302	July 17	1434	379	44	293
Glass-blowing apparatus .....	W. M. Piper .....	381,887	Apr. 24	2388	621	43	499
Glass-cleaning machine .....	A. F. Fitz Gerald .....	392,600	Nov. 13	627	157 158	45	721
Glass-cutting table .....	A. Hughes .....	382,234	May 1	519	133	43	609
Glass-furnace .....	J. Pearce and E. De La Chapelle .....	390,394	Oct. 2	2-0	73	45	60
Glass-grinding machine .....	J. J. Christie .....	386,738	July 24	2039	542 543	44	425
Glass-holder .....	C. W. Fox .....	378,361	Feb. 21	1528	400	42	809
Glass labels. Furnace for heating .....	J. L. Dawes .....	390,844	Oct. 9	904	239	45	184
Glass. Machine for grinding and beveling plate .....	J. H. and W. W. Heroy .....	394,980	Dec. 25	1954	503 504	45	1476
Glass. Machine for grinding, smoothing, and polishing .....	F. Schefold .....	384,394	June 12	832	217	43	1287
Glass. Machinery for beveling the edges of plates of .....	O. C. Hawkes .....	378,680	Feb. 28	1999	528 529	42	909
Glass. Machinery for grinding, shaping, and polishing .....	H. Besson and E. N. Kent .....	393,811	Dec. 4	108	30	45	1093
Glass. Manufacturing ornamental .....	J. F. Miller .....	393,257	Nov. 20	1575	413	45	916
Glass-melting furnace .....	H. Dulière .....	376,029	Jan. 3	423	113	42	85
Glass-melting furnace and regenerator .....	P. Schlachter and F. Heintz .....	387,818	Aug. 14	929	240 241	44	758
Glass-mold .....	W. Haley .....	388,556	Aug. 28	2078	539	44	993
Glass monument .....	H. C. Holl .....	394,650	Dec. 18	1388	362	45	1357
Glass ornamentation .....	E. and F. Smith .....	392,935	Nov. 13	1110	287 288	45	816
Glass. Ornamenting .....	M. Fink .....	384,569	June 12	1091	286	43	1336
Glass panels. Metallic frame for .....	A. Nacke .....	390,794	Oct. 9	829	221	45	171
Glass plates. Machine for beveling the edges of .....	J. Hollely .....	387,233	Aug. 7	48	11, 12	44	581
Glass-polishing machines. Feed apparatus for .....	R. Thirsk .....	386,417	July 17	1603	421	44	330
Glass, porcelain, &c. Ornamenting articles of .....	C. J. Brunetti .....	390,447	Oct. 2	350		45	74
Glass shingle .....	E. Walsh, Jr .....	377,588	Feb. 7	350	90, 91	42	562
Glasses. Adjusting attachment for opera and other .....	I. Fox .....	376,434	Jan. 17	1006	264	42	208
Glassware and manufacturing the same .....	J. Webb .....	379,089	Mar. 6	339	97	42	1029
Glassware. Coloring .....	H. E. Mueller .....	382,105	May 1	342	90	43	576
Glassware. Decorating .....	D. C. Ripley .....	394,612	Dec. 18	1328	348	45	1346
Glassware. Manufacture of .....	H. Northwood .....	392,450	Nov. 6	409	101	45	671
Globe .....	W. M. Goldthwaite .....	386,399	July 17	1560	413	44	318
Globe-support .....	R. Jacobs .....	386,136	July 17	1184	316	44	247

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 15.	Vol.	Page.
Glove.....	M. Biggin.....	380,079	Mar. 27	1828	{ 486 487	{ 42	1339
Glove.....	F. H. Busby.....	379,855	Mar. 20	1483	391	42	1262
Glove.....	D. B. Gunn.....	378,834	Feb. 28	2231	594	42	954
Glove.....	W. Vaughan.....	385,154	June 26	1974	505	43	1526
Glove.....	E. V. Whitaker.....	390,540	Oct. 2	487	127	45	98
Glove. Ball-catcher's.....	J. W. Sauer.....	385,728	July 10	592	153	44	123
Glove. Base-ball.....	F. G. Fischer.....	381,687	Apr. 24	2080	544	43	441
Glove-fastener.....	D. A. Carpenter.....	383,702	May 29	2717	717	43	1071
Glove-fastener.....	G. H. Coursen.....	384,428	June 12	889	329	43	1297
Glove-fastener.....	G. H. Coursen.....	384,429	June 12	881	229	43	1297
Glove-fastener.....	E. J. Kraetzer.....	382,366	May 8	736	186	43	659
Glove-fastener.....	M. Rubin.....	376,912	Jan. 24	1731	455	42	354
Glove-fastener.....	A. Steiner.....	380,604	Apr. 3	449	126	43	91
Glove-fastener.....	W. D. Thompson.....	385,331	June 26	2352	577	43	1580
Glove-fastening.....	F. J. Martin.....	394,589	Dec. 18	1290	338	45	1319
Glove-fastening.....	E. Pringle.....	380,694	Apr. 10	590	162	43	128
Glove-fastening.....	W. S. Richardson.....	382,904	May 15	1519	{ 397 398	{ 43	823
Glove-fastening.....	W. S. Richardson.....	382,905	May 15	1520	398	43	823
Glove-fastening.....	W. S. Richardson.....	383,069	May 15	1781	460	43	873
Glove-fastening.....	W. S. Richardson.....	383,070	May 15	1782	460	43	873
Glove-fastening.....	W. S. Richardson.....	383,071	May 15	1783	461	43	873
Glove-fastening.....	W. S. Richardson.....	383,072	May 15	1784	461	43	873
Glove-fastening.....	W. S. Richardson.....	383,073	May 15	1785	461	43	873
Glove-fastening.....	W. S. Richardson.....	383,074	May 15	1786	462	43	873
Glove-fastening.....	W. S. Richardson.....	390,400	Oct. 2	289	76	45	62
Glove-fastening.....	W. S. Richardson and J. B. Chase.....	382,903	May 15	1518	397	43	823
Glove or corset fastening.....	A. Rammoser.....	387,009	July 31	2497	655	44	517
Glove-package binder.....	C. Connolly.....	382,075	May 1	300	79	43	568
Gloves, &c. Fastener for.....	E. J. Kraetzer.....	381,703	Apr. 24	2102	550	43	415
Gloves, &c. Fastener for.....	E. J. Kraetzer.....	381,935	May 1	50	14	43	524
Gloves. Manufacture of.....	J. Upsdale.....	386,943	July 31	2399	631	44	498
Glue. Apparatus for setting and laying.....	C. Keller.....	386,590	July 21	1857	{ 490 491	{ 44	387
Glue by dialysis. Making.....	G. Lanzendoerfer.....	392,274	Nov. 6	140	.....	45	621
Glue. Can for liquid.....	C. M. Martin.....	387,982	Aug. 14	1189	323	44	808
Glue, mucilage, &c. Packago for liquid.....	J. W. Kirkpatrick.....	377,034	Jan. 31	1900	499	42	393
Glue packing-can. Liquid.....	R. Brooks.....	377,014	Jan. 31	1876	493	42	389
Glue-stock. Preparing.....	T. P. Milligan.....	379,091	Mar. 6	236	.....	42	1010
Glycerine from spent soap-lyes. Recovering.....	M. Highley.....	392,919	Nov. 13	1089	.....	45	813
Glycerine from spent soap-lyes. Recovering.....	E. K. Mitting.....	385,367	July 3	43	.....	44	11
Glycol-holder.....	E. C. Baker.....	383,092	May 22	1827	497	43	891
Gold and other metals from sulphide ores or compounds containing the same. Extracting.....	A. Parkes.....	392,929	Nov. 13	1101	.....	45	815
Gold and silver. Extracting.....	R. D. Clark.....	387,492	Aug. 7	432	.....	44	657
Gold and silver where mechanically coated in ores with refractory substances. Cleansing.....	C. P. Bellows.....	387,036	July 31	2527	.....	44	523
Gold from quartz or gangue. Separating.....	G. Sweaner.....	394,225	Dec. 11	736	.....	45	1218
Gold-leaf cutter.....	J. F. O'Hara and R. H. Kanlfuss.....	394,717	Dec. 18	1494	390	45	1378
Gold-plated shells, &c. Plate for shaving.....	J. S. Palmer.....	383,239	May 22	2030	532	43	932
Gold-saving apparatus.....	O. H. Bagley.....	394,636	Dec. 18	1369	358	45	1353
Gold-separating apparatus.....	J. S. George.....	394,112	Dec. 4	548	147	45	1176
Gold-separator.....	W. A. Merralls.....	391,421	Oct. 23	1739	464	45	356
Gong and signal chair for hotels, &c.....	M. E. Benjamin.....	386,289	July 17	1413	373	44	210
Gong. Door.....	D. S. Adams.....	379,626	Mar. 20	1127	298	42	1193
Gong. Electro-mechanical.....	J. P. Tirrell.....	380,423	Sept. 11	946	247	44	1260
Gong-sounding mechanism.....	C. F. West.....	387,027	July 31	2517	662	44	521
Goods. Apparatus for automatically delivering.....	A. Junghans.....	392,037	Oct. 30	2618	{ 711 712	{ 45	544
Goods. Apparatus for delivering.....	S. Stanbridge.....	392,139	Oct. 30	2787	{ 756 757	{ 45	577
Goods from shelves. Device for lifting.....	J. H. Jeffrey.....	388,978	Sept. 4	254	67	44	1121
Goods. Stand for displaying.....	R. H. Maxson.....	378,266	Feb. 21	1292	341	42	766
Goring-pattern.....	H. Gould.....	390,664	Oct. 9	646	173	45	137
Governor.....	W. A. Bole.....	382,450	May 8	865	221	43	683
Governor.....	J. W. Thompson.....	381,597	Apr. 24	1958	516	43	416
Governor.....	J. W. Thompson.....	385,152	June 26	1971	504	43	1525
Governor.....	J. W. Thompson.....	385,535	July 3	305	78	44	62
Governor.....	H. W. Westinghouse and F. M. Rites.....	384,485	June 12	951	247	43	1310
Governor. Electric.....	H. W. Parsons and J. Hodnit.....	386,602	July 24	1870	494	44	390
Governor. Engine.....	G. M. Hopkins.....	379,872	Mar. 20	1518	399	42	1270
Governor for pressure-engines.....	J. Rothchild.....	392,638	Nov. 13	682	171	45	731
Governor for steam-engines. Fly-wheel.....	L. D. Copeland.....	385,044	May 15	1749	452	43	866
Governor. Steam-engine.....	J. B. Allfree.....	382,932	May 15	1555	407	43	830
Governor. Steam-engine.....	J. B. Allfree.....	383,267	May 22	2079	546	43	940
Governor. Steam-engine.....	J. Begtrup.....	387,205	Aug. 7	12	3	44	575
Governor. Steam-engine.....	J. A. Horton.....	377,028	Jan. 31	1594	498	42	392
Governor. Steam-engine.....	E. Huber.....	394,573	Dec. 18	1264	331	45	1334
Governor. Steam-engine.....	J. S. Marshall.....	378,170	Feb. 21	1241	327	42	755
Governor. Steam-engine.....	F. McMahon.....	377,168	Jan. 31	2090	{ 550 551	{ 42	432
Governor. Steam-engine.....	N. E. Nash.....	391,422	Oct. 23	1741	465	45	357
Governor. Steam-engine.....	F. A. and T. Scheffler.....	386,036	July 10	1030	273	44	210
Governor. Steam-engine.....	C. Schmid.....	384,286	June 12	665	178	43	1257
Governor. Steam-engine.....	J. A. Seymour.....	379,131	Mar. 6	389	111	42	1049
Governors. Spring attachment for.....	M. Giddings.....	391,239	Oct. 16	1489	396	45	302
Grader. Road.....	F. Baldwin.....	390,150	Sept. 25	2049	{ 547 548	{ 44	1490
Grader. Road.....	J. E. Branch.....	375,797	Jan. 3	101	29	42	24
Grader. Road.....	A. Finks.....	383,350	May 22	2189	579	43	960
Grader. Road.....	O. E. Moats.....	376,156	Jan. 10	614	165	42	128
Grader. Road.....	J. J. Munger.....	389,851	Sept. 18	1602	423	44	1392
Grader. Road.....	S. F. Welch.....	379,550	Mar. 13	1001	268	42	1163

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Grader. Road.....	S. F. Welch.....	380,068	Mar. 27	1806	482	42	1335
Grader. Road.....	S. F. Welch.....	392,246	Nov. 6	102	26	45	613
Grading and ditching machine.....	J. C. Bennett and M. G. Bunnell.....	394,907	Dec. 18	1831	474 475	45	1443
Grading and ditching machine.....	M. G. Bunnell.....	394,908	Dec. 18	1834	475 476	45	1444
Grading and ditching machine.....	W. J. Edwards.....	393,467	Nov. 27	1883	493 496	45	984
Grading and ditching machine.....	J. B. Gavin.....	394,534	Dec. 11	1183	497 308	45	1304
Grading and ditching machine.....	J. B. Gavin.....	394,535	Dec. 11	1185	308 309	45	1305
Grading and ditching machine.....	J. C. Sage.....	378,406	Feb. 21	1595	419	42	822
Grading machine. Road.....	J. R. Dawson.....	384,894	June 19	1577	410	43	1437
Grading machine. Road.....	W. Fleming.....	387,348	Aug. 7	221	58	44	614
Grain-adjuster.....	H. B. French.....	380,198	Mar. 27	1988	532	42	1371
Grain-adjuster.....	W. L. Shake.....	377,216	Jan. 31	2163	571	42	445
Grain adjuster for binders.....	F. E. R. Malke.....	384,702	June 19	1301	339 340	43	1384
Grain-adjuster for binders.....	H. O. Roberts.....	385,375	July 3	53	16	44	13
Grain-adjusting device for self-binders.....	J. F. Steward.....	391,342	Oct. 16	1627	430 431	45	327
Grain. Apparatus for heating.....	R. C. and G. E. Hawley.....	394,267	Dec. 11	792	210	45	1231
Grain. Apparatus for mashing.....	C. Kaestner.....	394,370	Dec. 11	953	250	45	1263
Grain. Apparatus for testing.....	P. Grobecker.....	381,469	Apr. 17	1763	471	43	359
Grain-binder.....	W. R. Baker.....	382,938	May 15	1565	409	43	831
Grain-binder.....	J. W. Blood.....	390,436	Oct. 2	332	87, 88	45	70
Grain-binder.....	J. E. Buxton.....	377,062	Jan. 31	1944	511	42	402
Grain-binder.....	W. M. Clark.....	379,365	Mar. 13	723	197 198	42	1109
Grain-binder.....	R. Emerson.....	377,744	Feb. 14	591	152 153	42	621
Grain-binder.....	G. Esterly.....	384,140	June 5	440	122	43	1206
Grain-binder.....	J. A. Graham.....	383,462	May 29	2368	630	43	1000
Grain-binder.....	P. Hanson.....	377,069	Jan. 31	1954	513	42	404
Grain-binder.....	P. Hanson.....	379,953	Mar. 27	1635	435 436	42	1302
Grain-binder.....	J. Keller.....	391,371	Oct. 16	1669	442 443	45	335
Grain-binder.....	S. V. Kennedy and C. A. Anderson.....	380,119	Mar. 27	1882	500 501	42	1350
Grain-binder.....	S. V. Kennedy and C. A. Anderson.....	385,059	June 26	1839	471	43	1498
Grain-binder.....	S. D. Locke.....	389,581	Sept. 18	1184	310 311	44	1311
Grain-binder.....	S. D. Locke.....	389,847	Sept. 18	1580	419	44	1388
Grain-binder.....	C. H. McCormick, Jr., and H. E. Pridmore.....	378,401	Feb. 21	1581	415 416	42	820
Grain-binder.....	F. A. Murdock.....	378,845	Feb. 28	2249	598 599	42	957
Grain-binder.....	M. L. Nichols.....	381,079	Apr. 10	1186	315 316 317	43	239
Grain-binder.....	W. F. Olin.....	375,830	Jan. 3	139	40, 41	42	32
Grain-binder.....	W. M. Piatt.....	377,731	Feb. 7	565	145 146	42	601
Grain-binder.....	W. M. Piatt.....	384,072	June 5	343	96, 97	43	1186
Grain-binder.....	H. E. Pridmore.....	382,898	May 15	1511	396	43	821
Grain-binder.....	H. E. Pridmore.....	390,987	Oct. 9	1117	295 296	45	224
Grain-binder.....	P. H. Saxman.....	390,709	Oct. 9	710	188	45	149
Grain-binder.....	J. F. Seiberling.....	379,494	Mar. 13	919	247	42	1147
Grain-binder.....	J. F. Steward.....	382,842	May 15	1431	376 377	43	805
Grain-binder.....	A. Tétrault.....	386,905	July 31	2345	616	44	487
Grain-binder.....	W. N. Whiteley.....	376,123	Jan. 10	564	149 150	42	119
Grain-binder.....	W. N. Whiteley and R. Brown.....	377,093	Jan. 31	1992	521 522 523	42	411
Grain-binder.....	C. B. Withington.....	378,225	Feb. 21	1318	350 351 352	42	771
Grain-binder.....	C. B. Withington.....	378,226	Feb. 21	1330	352 353	42	773
Grain-binder.....	C. B. Withington.....	378,227	Feb. 21	1334	353 354	42	773
Grain-binder. Automatic.....	E. G. Watrous.....	392,650	Nov. 13	699	176	45	734
Grain-binder elevator.....	L. Mathews.....	384,458	June 12	920	239	43	1304
Grain-binder knoter.....	C. Farner and G. Linder.....	384,245	June 12	610	164	43	1247
Grain-binder knotting device.....	W. N. Whiteley and S. Dyer.....	379,622	Mar. 20	1119	296 297	42	1192
Grain-binder. Low-level.....	J. F. and G. H. Steward.....	376,488	Jan. 17	1079	223 224 225	42	222
Grain-binders. Automatic trip for.....	O. O. Storle.....	380,605	Apr. 3	450	127	43	91
Grain-binders. Bundle-carrier for.....	H. J. Case.....	388,630	Aug. 28	2189	588 589	44	1014
Grain-binders. Bundle-dropper for.....	J. Ritchie.....	390,401	Oct. 2	290	76	45	62
Grain-binders. Cord-tyer for.....	P. Hanson.....	377,828	Feb. 14	747	189 190	42	652
Grain-binders. Cord-tying mechanism for.....	R. H. Corey.....	376,515	Jan. 17	1124	293 294	42	230
Grain-binders. Knot-tying mechanism for.....	J. R. Severance.....	382,773	May 15	1341	353 354	43	786



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Grain-binders. Knotting device for	W. N. Whiteley	378,815	Feb. 28	2195	584	42	947
Grain-binders. Packing mechanism for	J. S. Davis	388,642	Aug. 28	2206	593	41	1017
Grain-binders. Tension device for	W. H. Stine	394,891	Dec. 18	1793	465	45	1437
Grain binding and harvesting machines. Frame for	A. C. Miller and W. Butterfield	395,288	Dec. 25	2427	623 624 625	45	1564
Grain-binding machine	H. J. Case	393,815	Dec. 4	116	32	45	1095
Grain-binding machine	C. Young	3-2,203	May 1	475	121 122	43	600
Grain-binding machines. Bundle-ejecting mechanism for	M. A. Keller	380,901	Apr. 10	905	242	43	185
Grain-cleaner	J. S. Ash	385,036	June 26	1799	463	43	1490
Grain-cleaner	J. C. Fisher	393,635	Nov. 27	2148	561 562	45	1038
Grain-cleaning cylinder	W. P. Clifford	383,627	May 29	2611	690	43	1048
Grain-cradle	J. Berry	382,021	May 1	216	57	43	553
Grain-cradle	F. S. Kretsinger	376,317	Jan. 10	837	221	42	169
Grain. Device for lifting fallen	J. M. March	390,496	Oct. 2	422	109 110	45	86
Grain-distributor	J. H. Tromanhanser	392,171	Oct. 30	2836	768 769	45	586
Grain-divider	S. Ray	383,542	May 29	2505	661	43	1024
Grain-drier	J. Black	389,048	Sept. 4	349	92	44	1139
Grain-drill	D. B. Bearden	384,499	June 12	995	259	43	1317
Grain-drill	H. B. Cease	391,298	Oct. 16	1572	417	45	317
Grain-drill	C. Fockler	386,394	July 17	1531	411 412	44	317
Grain-drill	W. H. Hollinger and J. W. Gillett	386,128	July 17	1169	312	44	244
Grain-drill	A. J. Martin	376,538	Jan. 17	1151	302	42	235
Grain-drill	A. C. McClelland	386,484	July 24	1702	450	44	359
Grain-drill	W. Nighswonger	379,179	Mar. 6	445	125	42	1051
Grain-drill	F. A. Polka	391,231	Oct. 16	1615	427 428	45	326
Grain-drill	R. B. Sheldon	392,694	Nov. 13	762	193	45	747
Grain-drill	R. B. Sheldon	392,695	Nov. 13	763	193	45	747
Grain-drill hoe	C. E. Patric	393,390	Nov. 27	1774	469	45	963
Grain-drill tubes. Shoe for	T. R. Crane	381,465	Apr. 17	1735	469	43	357
Grain-drills. Cleaner and gage attachment for	J. T. West	384,105	June 5	382	107	43	1194
Grain-drills. Runner for	J. L. Ashurst	386,911	July 31	2356	619	44	459
Grain-drying machine. Centrifugal	F. Melkersman	383,747	May 29	2786	733	43	1084
Grain-dumping device	J. P. and J. R. Sevier	386,934	July 31	2387	627 628	44	495
Grain-elevator	A. Dicffenbach	394,560	Dec. 18	1237	323	45	1329
Grain-elevator	T. J. Underwood	377,917	Feb. 14	871	224	42	677
Grain-garners. Automatic latch for	P. E. Canfield	381,528	Apr. 24	1858	491	43	397
Grain-header	S. J. Myrick	391,383	Oct. 16	1688	446 447	45	339
Grain-heater	J. Warrington	383,027	May 15	1707	443	43	859
Grain-hoppers. Means for operating the slides of	J. Dable	388,641	Aug. 28	2206	593	44	1017
Grain. Hulling, cleaning, and separating	F. Melkersman	385,870	July 10	806	213 214	44	164
Grain. Machine for splitting	L. Gathmann	376,712	Jan. 17	1422	374	42	286
Grain-meter	G. H. Kamman	384,983	June 26	1703	442	43	1471
Grain-meter	J. O. Marks	379,799	Mar. 20	1379	366	42	1245
Grain meter and register. Automatic	J. G. Wolfe	377,843	Feb. 14	768	196	42	656
Grain-meter. Automatic	J. Henry	386,745	July 24	2071	546	44	427
Grain-meter. Automatic	J. C. King	383,362	May 22	2205	583	43	963
Grain-meter. Automatic	A. Springer and W. Kent	394,665	Dec. 18	1415	369	45	1362
Grain-meter. Rotary	J. H. Richford	394,938	Dec. 18	1879	485 486	45	1452
Grain or hay stacker	D. McRae	385,470	July 3	204	53, 54	44	41
Grain-pipe. Flexible	T. W. Emery	384,352	June 12	773	201	43	1275
Grain-scourer	G. L. Squier	379,337	Mar. 13	685	186	42	1101
Grain-scouring machine	C. C. Schill	394,019	Dec. 4	413	111	45	1150
Grain-scouring machine	R. W. Welch	377,919	Feb. 14	875	224	42	677
Grain-separator	G. B. Bailey	383,166	May 22	1926	503	43	910
Grain-separator	G. C. Beeman	387,204	Aug. 7	11	2	44	574
Grain-separator	E. W. Flagg	387,869	Aug. 14	1004	261	44	772
Grain-separator	W. L. Gilson	390,772	Oct. 9	803	213	45	165
Grain-separator	E. C. Manning	385,563	July 3	349	91	44	70
Grain-separator	F. Melkersman	384,861	June 19	1531	398	43	1428
Grain-separator	G. W. Morris	394,001	Dec. 4	387	105	45	1145
Grain-separator	A. C. Newton	389,937	Sept. 25	1736	450	44	1426
Grain-separator	N. Nilson	376,157	Jan. 10	615	166	42	129
Grain-separator	J. L. Owens	389,002	Sept. 4	279	74	44	1126
Grain-separator	P. S. Willis	393,411	Nov. 27	1802	474	45	969
Grain separator and grader	E. N. Pugh	385,427	July 3	139	36, 37	44	29
Grain-separators. Out-extractor for	W. P. Clifford	392,783	Nov. 13	907	222	45	775
Grain transferring and weighing elevator apparatus.	P. F. Chase	383,860	June 5	17	5, 6	43	1124
Grain washing and drying machine	P. Van Gelder	379,498	Mar. 13	929	250	42	1148
Grape must and skins. Preserving	F. Springmühl	380,463	Apr. 3	231		43	47
Grapes while maturing. Envelope for protecting	E. T. Starr	383,327	May 22	2157	569	43	954
Graphophone	C. S. Tainter	380,535	Apr. 3	343	98, 99	43	70
Graphophone	C. S. Tainter	385,886	July 10	836	221	44	171
Graphophone-tablets. Manufacturing	C. E. Hadley	392,796	Nov. 13	922	236	45	778
Graphophones. Tablet for use in	C. S. Tainter	393,190	Nov. 20	147		45	896
Graphophonic tablet	C. S. Tainter	387,887	July 10	840	222	44	172
Graphophonic tablets. Support for	C. S. Tainter	393,191	Nov. 20	148	326	45	896
Grapple	W. Potter	380,405	Apr. 3	145	41	43	30
Grapple	D. S. H. and E. Sanborn	389,856	Sept. 18	1613	426	44	1394
Grapple	W. H. Wiley	384,107	June 5	381	108	43	1194
Grapple	W. H. Wiley	393,6-0	Nov. 27	2218	581	45	1053
Grapple. Self-adjusting	A. Beckers	388,109	Aug. 21	1394	375	44	856

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Grato .....	F. S. Bissell .....	388,473	Aug. 28	1971	528	44	972
Grate .....	G. B. Mershon .....	393,999	Dec. 4	385	529	45	1145
Grate .....	A. C. Morton .....	382,720	May 15	1271	333	43	772
Grato .....	J. O'Keefe .....	381,886	Apr. 24	2387	620	43	499
Grate .....	W. J. Owens .....	387,566	Aug. 7	566	621	44	681
Grate .....	C. Sahler .....	390,191	Sept. 25	2110	148	44	1502
Grate .....	Z. Sargent, M. Chase, and A. W. Cram .....	391,082	Oct. 16	1274	562	45	261
Grate .....	H. P. Tallmadge .....	376,170	Jan. 10	637	339	42	133
Grate .....	H. P. Tallmadge .....	379,740	Mar. 20	1288	170	42	1226
Grate .....	A. Telharst, C. A. Glazbrook, A. Philbey, and T. Lockerbie .....	381,185	Apr. 17	1343	343	43	277
Grate .....	W. Wicke .....	389,489	Sept. 11	1043	359	44	1278
Grate .....	L. M. Woodcock .....	384,409	June 12	854	222	43	1291
Grate and feed-water heater. Hollow .....	W. J. King .....	379,790	Mar. 20	1364	363	42	1241
Grate-bar .....	W. D. Cronin .....	377,740	Feb. 14	586	151	42	621
Grate-bar .....	I. N. Dickinson .....	378,195	Feb. 21	1273	337	42	762
Grate-bar .....	W. W. Forrest .....	375,870	Jan. 3	187	52	42	41
Grate-bar .....	C. J. M. Hayna .....	394,114	Dec. 4	551	147	45	1176
Grate-bar .....	C. J. M. Hayna .....	394,115	Dec. 4	552	148	45	1176
Grate-bar .....	W. E. Kelly .....	394,984	Dec. 25	1559	504	45	1477
Grate-bar .....	G. L. Kitson and J. Reagan .....	388,691	Aug. 28	2280	612	44	1030
Grate-bar .....	G. L. Kitson and J. Reagan .....	391,052	Oct. 16	1231	613	45	253
Grate-bar .....	J. Mahony .....	388,426	Aug. 28	1003	327	44	928
Grate-bar .....	M. H. Moskovits .....	384,104	May 1	311	328	43	576
Grate-bar .....	O. Reilly .....	390,602	Oct. 9	980	509	45	188
Grate-bar .....	R. Thompson .....	384,729	June 19	1329	90	43	1390
Grate. Dumping .....	P. Rensland and C. Fisher .....	382,055	May 1	270	258	43	563
Grate-dumping apparatus .....	S. R. Scharf .....	392,137	Oct. 30	2784	347	45	577
Grate. Fire .....	J. Cooper .....	389,289	Sept. 11	760	756	44	1225
Grate. Fire .....	D. M. Crumley .....	381,989	May 1	151	192	43	542
Grate. Fire-place .....	F. W. Merriam .....	392,817	Nov. 13	953	244	45	785
Grate for furnaces, &c. ....	W. Phipps .....	385,957	July 10	921	245	44	188
Grate for furnaces, stoves, &c. Fire .....	G. C. Dunklee .....	388,147	Aug. 28	2214	244	44	1019
Grate for stoves or other heating apparatus .....	E. Cadé .....	387,489	Aug. 7	427	595	44	656
Grate. Heating and ventilating .....	E. A. Jackson .....	374,653	Dec. 18	1392	111	45	1358
Grate. Hot-air .....	J. A. Irons .....	393,236	Nov. 20	1542	363	45	910
Grate or ash-pan bar .....	C. Knaggs .....	383,474	July 24	1621	404	44	357
Grate. Sectional pedestal .....	H. Petersen .....	382,553	May 8	1027	445	43	715
Grate. Shaking .....	W. P. Harthan .....	389,220	Sept. 11	632	262	44	1199
Grate. Stove, range, and furnace .....	W. McClave .....	393,844	Dec. 4	160	163	45	1102
Grated structure .....	M. H. Wilson and W. D. Thomas .....	380,069	Mar. 27	1807	44	42	1335
Grater .....	E. Baltzley .....	378,127	Feb. 21	1171	483	42	743
Grater .....	F. Pollack .....	385,879	July 10	823	305	44	167
Grating and slicing device .....	J. Distelhorst .....	394,759	Dec. 18	1562	218	45	1393
Gravel, &c. Box for washing .....	T. W. Carrio .....	378,765	Feb. 28	2108	408	42	936
Gravel-fountain spring .....	G. W. Goad, Sr. ....	385,349	July 3	14	557	44	5
Gravity apparatus. Specific .....	L. Siemens .....	380,533	Apr. 3	340	45	41	69
Gravity-battery .....	L. C. Bartley .....	393,203	Nov. 20	1496	97	45	960
Grease-cup .....	H. D. Mentzel .....	381,157	Apr. 17	1307	391	43	271
Grease from water. Separating .....	J. Hughes .....	386,402	July 17	1580	349	44	326
Gridiron .....	J. W. Sankey .....	389,602	Sept. 18	1226	416	44	1318
Grinder. Roll .....	P. F. Dooley .....	391,127	Oct. 16	1334	320	45	272
Grinding and mixing mill .....	G. Hughes .....	394,771	Dec. 18	1596	355	45	1401
Grinding chisels and other tools. Machine for .....	H. J. Gosling .....	388,966	Sept. 4	235	418	44	1117
Grinding cutlery .....	A. Johnston .....	377,202	Jan. 31	2136	62, 63	42	411
Grinding-machine .....	E. B. Ball .....	387,482	Aug. 7	413	564	44	653
Grinding-machine .....	J. A. Coleman .....	376,814	Jan. 24	1593	108	42	327
Grinding-machine .....	J. A. Coleman .....	376,815	Jan. 24	1597	109	42	327
Grinding-machine .....	J. B. Comstock .....	377,883	Feb. 14	823	418	42	666
Grinding-machine .....	J. C. Dell .....	393,145	Nov. 20	1411	419	45	822
Grinding-machine .....	G. A. Hadley .....	385,666	July 3	496	369	44	96
Grinding-machine .....	F. C. Hall .....	387,874	Aug. 14	1010	128	44	713
Grinding-machine .....	F. C. Hall .....	388,672	Aug. 28	2251	263	44	1025
Grinding-machine .....	E. R. Hyde and A. Vallentino .....	375,821	Jan. 3	129	604	42	30
Grinding-machine .....	F. A. Shoemaker .....	384,795	June 19	1422	38	43	1409
Grinding-machine. Cutlery .....	A. Johnston .....	377,201	Jan. 31	2132	373	42	440
Grinding-machine. Emery-belt .....	C. E. Roberts .....	377,212	Jan. 31	2152	563	42	444
Grinding-machine for cutlery .....	H. A. Axtell .....	393,497	Nov. 27	1938	569	45	994
Grinding-mill .....	M. J. Althonso .....	385,035	June 26	1798	507	43	1490
Grinding-mill .....	P. T. Coffield .....	391,689	Oct. 23	2098	568	45	431
Grinding-mill .....	A. Dobler .....	381,346	Apr. 17	1579	569	43	524
Grinding-mill .....	W. D. Gray .....	388,968	Sept. 4	239	423	44	1118
Grinding-mill .....	W. D. Gray and R. Birkholz .....	392,726	Nov. 13	813	239	45	757
Grinding-mill .....	A. M. Hill .....	395,140	Dec. 25	2195	206	45	1522
Grinding-mill .....	R. A. Lister and G. S. Richmond .....	389,310	Sept. 11	786	561	41	1229
Grinding-mill .....	A. S. Martin .....	390,497	Oct. 2	427	199	45	87

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Page.	Vol.	Page.
Grinding-mill .....	G. H. McCulloch .....	379,900	Mar. 20	1539	410	42	1277
Grinding-mill .....	G. and A. Raymond .....	387,257	Aug. 7	86	20 21 22	44	588
Grinding-mill .....	J. S. Woodcock .....	382,202	May 1	472	121	43	601
Grinding-mill .....	G. A. Young .....	394,238	Dec. 11	745	137	45	1222
Grinding-mill .....	G. Zonca and G. Bella .....	384,949	June 19	1650	429	43	1451
Grinding-mill. Feed .....	H. W. Vietmeyer .....	379,549	Mar. 13	999	262	42	1162
Grinding-mill. Roller .....	W. D. Gray .....	388,661	Aug. 28	2235	599	44	1022
Grinding-mill. Roller .....	W. D. Gray .....	388,967	Sept. 4	237	63	44	1117
Grinding-mill rolls .....	F. Beall .....	383,852	June 5	7	2	43	1122
Grinding spherical bodies. Machine for .....	O. Jung .....	392,435	Nov. 6	382	94	45	666
Grindstone-hanger .....	D. O'Leary .....	383,977	June 5	293	59	43	1159
Grindstones. Tool-holder for .....	J. M. Dillon .....	388,958	Sept. 4	225	60	44	1115
Grip device. Intermittent .....	W. E. Nickerson .....	390,796	Oct. 9	832	232	45	171
Grip. Pneumatic .....	S. P. Baird .....	385,989	July 10	908	278	41	198
Grip-tester or similar coin-controlled device .....	P. Beetz .....	394,812	Dec. 18	1659	431	45	1412
Gripping device. Intermittent .....	M. S. Rexford .....	383,371	May 22	2219	5-9	43	965
Groats. Separating-machine for cleaning .....	E. Weiss .....	378,562	Feb. 28	1828	481 482	42	876
Grocer's bin .....	L. Johnston .....	394,276	Dec. 11	802	213	45	1234
Groove-cutting tool .....	W. H. Parry .....	383,589	May 29	2557	676	43	1036
Grooving apparatus for card-board, leather, and like material .....	T. Remus .....	385,391	June 26	2042	522	43	1531
Grooving-machine .....	A. V. Allen .....	376,057	Jan. 10	466	125	42	101
Grooving-machines. Cutter-head for .....	J. T. Grzybowski .....	388,410	Aug. 28	1883	503	44	954
Grubber .....	A. E. Lyman .....	378,966	Mar. 6	146	42	42	995
Guard: See Bridge-guard. Loom shuttle-guard. Buckle-guard. Pie-guard. Cattle-guard. Railway-guard. Elevator-guard. Snow-guard. Fork-guard. Window-guard. Key-hole guard. Yoke-guard. Lantern-guard.							
Guitar .....	G. W. Bowers .....	383,275	May 22	2089	549	43	941
Guitar .....	G. B. Durkee and W. Becker .....	393,694	Nov. 27	2339	5-7	45	1056
Guitars. Capodastro for .....	G. D. Moffat .....	390,612	Oct. 2	571	152	45	115
Gum. Machine for manufacturing chewing .....	W. J. White .....	378,637	Feb. 28	1927	511 512	42	897
Gum. Air .....	A. T. Brown .....	381,109	Apr. 17	1345	335	43	259
Gum. Air .....	C. J. Hamilton .....	390,297	Oct. 2	133	38	45	30
Gun. Automatic machine .....	B. Burton .....	390,114	Sept. 25	2000	533 534	44	1480
Gun barrel. Cane .....	E. D. Bean .....	380,975	Apr. 10	1020	266	43	206
Gun-barrel cleaner .....	J. Hartness .....	388,133	Aug. 21	1455	390	44	866
Gun. Breech-loading .....	L. P. Diss .....	383,108	May 22	1848	483 484	43	895
Gun. Breech-loading .....	L. H. Smith .....	381,088	Apr. 10	1205	373	43	212
Gun. Breech-loading .....	L. H. Smith .....	383,325	May 22	2151	569	43	954
Gun. Cane .....	E. D. Bean. (Reissue.) .....	10,910	Mar. 20	1587	418	42	1283
Gun-carriage .....	A. Noble .....	378,333	Feb. 21	1490	329 390	42	801
Gun-carriage .....	L. N. Tonn .....	384,942	June 19	1637	4-5	43	1449
Gun-carriages. Recoil-cushion for .....	E. Hill .....	378,314	Feb. 21	1462	382	42	796
Gun-carriages. Recoil-cushion for .....	E. Hill .....	379,783	Mar. 20	1253	3 0	42	1239
Gun. Centrifugal .....	W. E. Hicks .....	393,107	Nov. 20	1359	334	45	872
Gun-cleaner .....	C. F. Gillette .....	387,410	Aug. 7	310	79	44	632
Gun. Magazine .....	R. F. Cook .....	378,661	Feb. 28	1867	522	42	904
Gun. Magazine .....	M. E. Gregg .....	386,245	July 17	1355	357	44	279
Gun. Magazine .....	S. K. Hindley .....	383,641	May 29	2632	696	43	1053
Gun. Magazine .....	E. E. Redfield .....	378,556	Feb. 28	1816	479 480	42	875
Gun. Magazine .....	E. G. N. Salenius .....	386,659	July 24	1953	516	44	406
Gun. Magazine .....	J. Schnlhof .....	390,099	Sept. 25	1978	526	41	1475
Gun-rack for tents .....	S. S. Pagne .....	377,114	Jan. 31	2036	530	42	417
Gun-sight .....	G. W. Wood and J. W. Carver .....	388,166	Aug. 21	1509	402	44	875
Gun. Spring .....	T. Harding .....	379,782	Mar. 20	1352	360	42	1239
Gun. Spring air .....	C. A. Pinckney and C. J. Hamilton .....	390,311	Oct. 2	152	42	45	34
Gun-training apparatus .....	J. Vavasour .....	381,095	Apr. 10	1217	326 327	43	245
Gun when discharged. Means for indicating the pressure in a .....	G. E. Spiller .....	391,392	Oct. 16	1701	450	45	341
Guns and ordnance. Making .....	F. J. Seymour .....	376,168	Jan. 10	634	169	42	132
Guns. Apparatus for conveying ammunition to .....	C. H. Murray .....	381,715	Apr. 24	2125	555 556 557	43	449
Guns. Apparatus for loading heavy .....	C. H. Murray .....	380,688	Apr. 10	583	160 161	43	126
Guns. Breech mechanism for .....	T. Nordenfelt .....	384,537	June 12	1043	272 273	43	1327
Guns. Breech mechanism for .....	T. Nordenfelt .....	388,576	Aug. 28	2111	566 567	44	999
Guns. Carriage for machine .....	T. Nordenfelt .....	393,386	Nov. 27	1769	469	45	962
Guns. Charge-indicator for magazines of .....	W. R. Miller .....	387,531	Aug. 7	493	128	44	6 8
Guns. Elastic pedestal for mounting .....	A. C. Kocner .....	381,475	Apr. 17	1771	453	43	361
Guns. Extractor mechanism for breech-loading .....	W. Lorenz .....	378,169	Feb. 21	1340	326	42	755
Guns. Indicator for magazines of .....	W. R. Miller .....	393,653	Nov. 27	2180	571	45	1044
Guns. Lock mechanism for .....	P. Manser .....	393,842	Dec. 4	157	43	45	1101
Guns. Manufacture of .....	H. S. Maxim .....	376,990	Jan. 24	1832	189 190 191 192	42	372
Guns. Means for controlling hydraulic apparatus for training heavy .....	C. H. Murray .....	382,377	May 8	753	191 192	43	662

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Guns. Mounting and loading apparatus for .....	G. W. Rendel .....	383,768	May 29	2927	{ 744 745	{ 43	1090
Guns. Operating mechanism for turret .....	H. Cruson .....	388,356	Aug. 21	1796	480	44	933
Guns. Safety-lock for magazine .....	C. M. Spencer .....	386,614	July 24	1888	499	41	394
Guns. Trigger mechanism for .....	B. R. Jolly .....	383,814	May 29	2908	{ 767 768	{ 43	1105
Guns. Vertical breech-closing mechanism for .....	W. Lorenz .....	381,628	Apr. 24	1998	525	43	424
Gunpowder .....	C. J. Olds .....	381,507	Apr. 17	1823	.....	43	372
Gunpowder-mill .....	P. A. Oliver .....	382,825	May 15	1411	371	43	800
Gunpowder-mill roll .....	P. A. Oliver .....	375,889	Jan. 3	215	59	42	46
Gunpowder-mills. Automatic feed and delivery apparatus for .....	P. A. Oliver .....	386,843	July 31	2256	593	44	409
Gunpowder or analogous materials. Compressing .....	W. Lorenz .....	380,686	Apr. 10	579	159	43	125
Gunpowder press and grainer .....	P. A. Oliver .....	378,516	Feb. 28	1755	464	42	833
Gunpowder press and grainer .....	P. A. Oliver. (Reissue.) .....	10,965	Oct. 30	1846	771	45	588
Gutter and conduit. Combined .....	H. L. Cranford .....	379,505	Mar. 13	939	253	42	1150
Guttering to the eaves of houses. Hanging sheet-metal .....	C. C. Frederick .....	381,770	Apr. 24	2194	574	43	463
Gymnasium. Equestrian .....	E. G. Butcher .....	377,233	Jan. 31	2182	576	42	449
Gypsum. Treating .....	W. Manning .....	395,159	Dec. 25	2231	.....	45	1528
Hackle-pins, awls, &c. Machine for making .....	H. A. Williams .....	390,635	Oct. 2	602	{ 160 161	{ 45	121
Hair-braid pin. Safety .....	F. G. Winnek .....	387,611	Aug. 7	636	165	44	684
Hair-crimper .....	N. Allen .....	388,387	Aug. 28	1857	475	44	949
Hair-crimper .....	C. H. Bissell .....	384,418	June 12	866	226	43	1294
Hair-crimper .....	G. Hauss .....	381,133	Apr. 17	1275	341	43	265
Hair-crimper .....	I. W. Haysinger. (Reissue.) .....	10,936	June 5	576	157	43	1233
Hair-curler .....	J. Dwyer .....	391,130	Oct. 16	1338	356	45	272
Hair curling and crimping device .....	M. Campbell .....	381,983	May 1	137	32	43	540
Hair-dressing .....	M. V. Babcock .....	385,988	July 10	968	.....	44	178
Hair-dressing device .....	A. F. Godefroy .....	389,803	Sept. 18	1522	403	44	1377
Hair-picker .....	H. Mundell .....	390,694	Oct. 9	690	174	45	145
Hair-ponic .....	A. F. Pratt .....	376,808	Jan. 24	1587	.....	42	326
Hair-ponic .....	W. T. Wallace .....	386,617	July 24	1891	.....	44	395
Hair-ponic .....	A. I. Worthington .....	375,860	Jan. 3	175	.....	42	39
Hair. Treating crude animal .....	M. Conlon .....	387,579	Aug. 7	589	.....	44	685
Hair washing and separating machine .....	H. Bright .....	389,191	Sept. 11	599	153	44	1192
Hairspring collet and stud .....	H. Huguenin .....	384,166	June 5	484	133	43	1215
Halter .....	C. C. Cook .....	385,544	July 3	316	81	44	64
Halter .....	J. C. Covert .....	379,369	Mar. 13	735	200	42	1111
Halter .....	J. C. Covert .....	382,692	May 15	1242	324	43	766
Halter .....	M. R. Dowlin .....	379,056	Mar. 6	285	83	42	1020
Halter .....	D. C. Frost .....	381,123	Apr. 17	1265	338	43	263
Halter, &c .....	A. G. Garfield .....	375,809	Jan. 3	116	34	42	27
Halter .....	D. M. Stuart .....	383,836	May 29	2940	777	43	1112
Hame .....	L. Anderson .....	392,839	Nov. 13	985	252	45	791
Hame .....	J. N. Farlow .....	384,030	June 5	279	78	43	1174
Hame .....	A. C. Matlack .....	381,399	Apr. 17	1653	441	43	339
Hame .....	R. T. Semmes .....	391,935	Oct. 30	2541	688	45	529
Hame .....	W. T. Stearns .....	386,615	July 24	1889	499	44	395
Hame attachment .....	J. Lipps .....	389,580	Sept. 11	1086	287	44	1266
Hame attachment .....	R. F. Russell .....	384,084	June 5	357	101	43	1189
Hame-fastener .....	J. A. Brill .....	376,811	Jan. 24	1589	416	42	326
Hame-fastener .....	E. F. Butler .....	378,128	Feb. 21	1173	306	42	744
Hame-fastener .....	J. H. D. Everett .....	377,671	Feb. 7	484	125	42	566
Hame-fastener .....	J. C. Hackett .....	383,727	May 29	2759	727	43	1078
Hame-fastener .....	A. G. McLeod .....	382,103	May 1	340	90	43	576
Hame-link .....	M. E. Lasher .....	382,883	May 15	1491	391	43	817
Hames. Die for attaching ferrets to .....	W. H. Walker .....	381,447	Apr. 17	1734	463	43	354
Hames. Die for welding draft-eyes to .....	W. H. Walker .....	376,998	Jan. 24	1845	488	42	375
Hames. Line-ring for .....	J. Pinkerman .....	393,261	Nov. 20	2580	414	45	917
Hames, pipes, or rods. Machine for bending .....	C. P. Spencer .....	385,778	July 10	668	174	44	134
Hammer and plane. Combined shingling .....	W. S. Robertson .....	386,608	July 24	1877	{ 495 496	{ 44	392
Hammer. Drop .....	F. M. Leavitt .....	380,808	Apr. 10	757	{ 207 208	{ 43	158
Hammer. Drop .....	F. M. Leavitt .....	386,076	July 10	1082	{ 201 202	{ 44	221
Hammer. Drop .....	J. Sandage .....	376,111	Jan. 10	539	{ 143 144	{ 42	115
Hammer. Foot-power .....	C. J. Rundquist .....	379,818	Mar. 20	1418	377	42	1252
Hammer for blacksmiths. Spring .....	H. Stewart and W. B. Wiswall .....	385,018	June 26	1766	457	43	1424
Hammer. Horse-collar .....	W. Foglesong .....	391,133	Oct. 16	1341	{ 357 358	{ 45	273
Hammer. Nail .....	D. P. Bigelow .....	378,650	Feb. 28	1948	518	42	901
Hammer. Pneumatic .....	G. Glossop .....	394,483	Dec. 11	1103	287	45	1290
Hammer. Pneumatic .....	G. Glossop .....	394,484	Dec. 11	1104	{ 287 288	{ 45	1290
Hammer. Power .....	H. J. Bierhart .....	385,540	July 3	312	80	44	63
Hammer. Power .....	H. St. Lawrence .....	379,340	Mar. 13	690	187	42	1102
Hammer. Steam pile-driving .....	J. N. Warrington .....	378,745	Feb. 28	2078	548	42	924
Hammer. Tack .....	L. H. Hoever .....	392,517	Nov. 6	497	125	45	629
Hammer, wrench, and staple-puller. Combined .....	J. H. Hebblethwaite .....	389,384	Sept. 11	892	232	44	1250
Hammers. Nail-holding attachment for .....	J. H. Baker .....	378,946	Mar. 6	121	35	42	990
Hammers or other tools. Device for carrying chip-ping .....	J. T. Billson .....	377,664	Feb. 7	474	121	42	564
Hammers. Valve-gear for steam .....	C. W. Willard .....	380,155	Mar. 27	1927	514	42	1359
Hammering machinery actuated by explosive gaseous mixtures .....	C. W. Pinkney .....	384,869	June 19	1543	{ 401 402	{ 43	1430
Hammock .....	A. Dickey .....	381,538	Apr. 24	1873	495	43	399
Hammock .....	R. Gennell .....	392,603	Nov. 13	634	159	45	722
Hammock .....	B. A. Norris .....	390,393	Oct. 2	279	73	45	59
Hammock .....	I. E. Palmer .....	387,367	Aug. 7	258	65	44	622
Hammock or camp-chair .....	F. O. Farwell .....	392,112	Oct. 30	2747	746	45	569

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Hammock or swing	M. Broderick	381,827	Apr. 24	2295	597	43	480
Hammock-spreader	A. Beals	375,793	Jan. 3	96	28	42	23
Hammock-spreader	T. B. Thomas	384,728	June 19	1328	346	43	1389
Hammock-spreader	V. P. Travers	381,863	Apr. 24	2351	610	43	491
Hammock-stand. Portable folding	E. Hussey	382,648	May 8	1172	303	43	744
Hammock-supporting ropes. Holder for.	V. P. Travers	381,864	Apr. 24	2352	610	43	491
Hammock, swing, lounge, and table. Combined.	F. H. Perry	390,985	Oct. 9	1113	294	45	223
Hammocks, &c. Frame for	W. F. Parmelee	381,025	Apr. 10	1089	289	43	220
Hand-bag	J. Mehl, Jr.	384,377	June 12	814	211	43	1281
Hand-press. Domestic	J. W. Condon, C. G. Shepard, and P. Adams.	385,165	June 26	1986	509	43	1538
Hand-rest.	M. L. Brown	389,053	Sept. 4	355	93	44	1140
Hand-rest for book-keepers	W. D. Sloan	383,776	May 29	247	749	43	1094
Handkerf.	M. Thomas	375,843	Jan. 3	158	44	42	35
Handkerf.	M. S. Thomas and S. T. Smith	395,016	Dec. 25	2001	516	45	145
Handkerchief-holder	S. M. Griswold	282,805	May 15	1389	364	43	795
Handle:							
See Adjustable handle.	Fishing-rod handle.						
Anger-handle.	Mason's float-handle.						
Bag-handle.	Reel-handle.						
Basket-handle.	Saw-handle.						
Box-handle.	Shovel-handle.						
Brake-handle.	Soldering-iron handle.						
Coffin-handle.	Tool-handle.						
Extension-handle.	Trunk-handle.						
File-handle.	Velocipede-handle.						
Handle.	M. Dixon	390,351	Oct. 2	217	57	45	46
Handle.	F. Haberman	391,316	Oct. 16	1594	422	45	321
Handle.	T. L. Rivers	381,646	Apr. 24	2019	530	43	428
Handle.	W. M. Rockwell	375,773	Jan. 3	40	21	42	18
Handle attachment.	F. Brongb	378,540	Feb. 28	1789	472	42	869
Handle for boxes, &c.	G. W. McGill	395,162	Dec. 25	2237	575	45	1529
Handles. Die for molding composition	A. C. Estabrook	394,107	Dec. 4	541	145	45	1174
Handling material. Apparatus for	A. E. Brown	382,946	May 15	1577	412	43	834
Hanger:							
See Cable-hanger.	Hat-hanger.						
Card-hanger.	Hay-carrier-track hanger.						
Curtain-hanger.	Lamp-hanger.						
Door-hanger.	Pipe-hanger.						
Eaves-gutter hang-er.	Saw-frame hanger.						
Eaves-trough hang-er.	Shaft-hanger.						
Garment or coat hanger.	Tobacco-hanger.						
Grindstone-hanger.	Track-hanger.						
	Umbrella-hanger.						
	Vehicle-spring hanger.						
	Window-hanger.						
Hanger for displaying textile articles	M. Tuchfeld	391,868	Oct. 30	2371	644	45	495
Harbor-bars. Deepening	H. F. Knapp	390,237	Oct. 2	61	17	45	16
Hardening and tempering by electricity. Apparatus for	P. Diehl	388,645	Aug. 28	2211	594	44	1018
Harmonica	M. Braun	392,405	Nov. 6	343	84, 85	45	659
Harmonica-holder.	W. E. Mulhollan	385,473	July 3	207	54	44	42
Harmonicons. Resonator for	R. Plant and E. Perry	375,833	Jan. 3	143	41, 42	42	33
Harness.	C. C. Cole	392,784	Nov. 13	908	232	45	775
Harness.	J. S. Hendrickson	388,040	Aug. 21	1286	348	44	835
Harness.	M. M. Hitt	388,560	Aug. 28	2085	561	44	994
Harness.	A. N. Jenkins	383,359	May 22	2202	582	43	963
Harness.	M. Williams	380,376	Apr. 3	109	32	43	23
Harness attachment.	J. S. Coolidge	392,998	Nov. 13	1074	278	45	810
Harness attachment.	L. Hewitt	389,471	Sept. 11	1016	272	44	1273
Harness attachment.	J. R. McDonald	377,112	Jan. 31	2023	530	42	416
Harness back-pad.	L. W. Vandenburg	380,064	Mar. 27	1801	481	42	1334
Harness-bracket	J. Harbison	381,776	Apr. 24	2202	576	43	464
Harness-coupling	J. P. Maw	392,681	Nov. 13	742	188	45	743
Harness-fastener.	F. Hardy	393,153	Nov. 20	1423	371	45	885
Harness for kicking cows	A. Sweet	387,326	Aug. 7	191	50	44	608
Harness-hook	D. W. Brownell	383,341	May 22	2174	575	43	957
Harness-hook	H. W. Getman	375,994	Jan. 3	367	98	42	75
Harness hook or snap	W. S. F. Dillon	384,512	June 12	1010	263	43	1320
Harness-hooks. Wear-plate for	W. B. Hayden	388,676	Aug. 28	2259	605	44	1026
Harness-horse.	T. Willsea	384,301	June 12	692	184	43	1262
Harness-loop	C. W. Rogers	391,192	Oct. 16	1424	380	45	290
Harness-maker's tool.	W. G. Bunker	386,801	July 31	2167	571	44	455
Harness-mountings. Die for.	D. McCance	394,282	Dec. 11	816	216	45	1237
Harness-mountings. Manufacture of.	R. S. Grummon	381,571	June 12	1094	287	43	1337
Harness-pad	J. Thomas	391,661	Oct. 23	2062	558	45	425
Harness-pad	J. Thomas	391,662	Oct. 23	2063	558	45	425
Harness-pad	S. Van Gilder	376,563	Jan. 17	1183	312	42	211
Harness-track	E. Phillips and A. N. Edwards	383,981	June 5	214	63	43	1162
Harness. Rein-guard for	J. Peterson	376,677	Jan. 17	1369	360	42	276
Harness-ring with shield or rider	W. H. Johnson	392,272	Nov. 6	138	34, 35	45	620
Harness-rosette	C. H. Foster	393,893	Dec. 4	239	64	45	1118
Harness-rosette	J. W. Grummon	377,750	Feb. 14	606	156	42	623
Harness-rosette	O. P. Howe	388,044	Aug. 21	1291	349	44	836
Harness-rosette	D. M. Ireland	389,387	Sept. 11	898	234	44	1251
Harness-rosette	E. F. Pfeuger	390,702	Oct. 9	700	186	45	147
Harness-rosette attachment	R. W. Jones	382,880	May 15	1489	390	43	817
Harness shaft-loop	C. C. Smith	386,093	July 10	1121	299	44	227
Harness-strap	R. K. Burt	379,196	Mar. 6	472	133	42	1056
Harness-strap attachment	E. Covert	381,216	Apr. 17	1383	370	43	285
Harness-tool	C. M. Crane	389,203	Sept. 11	615	157	44	1195
Harness. Trace-lock for.	L. Anderson	383,223	June 26	2070	530	43	1546

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Harness-trimming.....	D. J. Regan.....	390,096	Sept. 25	1974	525	44	1474
Harness. Trotting.....	J. H. Whitaker.....	377,727	Feb. 7	559	144	42	600
Harness. Water-hook for.....	G. M. Strong.....	384,098	June 5	373	105	43	1192
Harp.....	J. C. Dietz.....	394,467	Dec. 11	1084	{ 281 282 }	45	1287
Harrow.....	J. G. Bailey.....	394,809	Dec. 18	1655	433	45	1411
Harrow.....	J. H. Barley. (Reissue).....	10,913	Mar. 27	2126	569	42	1400
Harrow.....	J. H. Barley.....	387,202	Aug. 7	6	2	44	574
Harrow.....	J. H. and T. K. Barley.....	389,183	Sept. 11	594	152	44	1191
Harrow.....	W. M. Brinkerhoff.....	392,311	Nov. 6	190	49	45	630
Harrow.....	W. M. Brinkerhoff.....	392,312	Nov. 6	192	50	45	630
Harrow.....	J. M. Childs. (Reissue).....	10,893	Jan. 10	986	257	42	196
Harrow.....	J. M. Childs.....	378,081	Feb. 21	1105	229	42	731
Harrow.....	G. Coffman.....	379,003	Mar. 6	209	57	42	1046
Harrow.....	S. Cooper.....	382,513	May 8	961	243	41	702
Harrow.....	A. Corbin, Jr.....	384,131	June 5	426	118	43	1203
Harrow.....	T. R. Crane.....	381,464	Apr. 17	1754	469	43	357
Harrow.....	M. Daley.....	389,502	Sept. 11	1058	281	44	1281
Harrow.....	J. W. Dolyns.....	384,966	June 26	1676	435	43	1165
Harrow.....	A. C. Downey.....	389,138	Sept. 4	507	129	44	1166
Harrow.....	B. Essig.....	381,467	Apr. 17	1758	470	43	358
Harrow.....	A. B. Friedrich.....	389,216	Sept. 11	629	161	44	1198
Harrow.....	G. W. Gorsuch.....	381,835	Apr. 24	2303	599	43	482
Harrow.....	H. F. Graetzel and F. N. Powell.....	387,412	Aug. 7	312	80	41	632
Harrow.....	E. W. Herendeen.....	382,304	May 8	638	162	41	641
Harrow.....	J. H. Higgins.....	393,156	Nov. 20	1426	372	45	886
Harrow.....	J. Hildesheim.....	381,623	Apr. 24	1993	523	43	423
Harrow.....	W. E. Jacobs.....	383,298	May 22	2121	{ 559 560 }	43	948
Harrow.....	P. C. King.....	383,305	May 22	2133	563	43	950
Harrow.....	C. La Dow.....	388,567	Aug. 28	2099	563	44	996
Harrow.....	A. D. Manson.....	384,457	June 12	919	230	43	1304
Harrow.....	D. C. Markham.....	386,021	July 10	1009	268	44	206
Harrow.....	G. Melson and R. H. Harper.....	386,598	July 24	1866	433	44	338
Harrow.....	I. A. Moore.....	391,380	Oct. 16	1685	446	45	339
Harrow.....	P. J. Parmiter.....	389,593	Sept. 18	1212	317	41	1316
Harrow.....	R. G. Patton.....	386,845	July 31	2278	594	44	470
Harrow.....	C. A. Perin.....	379,079	Mar. 6	317	92	42	1025
Harrow.....	H. C. Pratt.....	386,847	July 31	2260	595	44	470
Harrow.....	S. Ritty.....	377,213	Jan. 31	2155	549	42	444
Harrow.....	M. M. Roberts.....	388,222	Aug. 21	1583	{ 422 423 }	44	891
Harrow.....	T. Rogers.....	391,194	Oct. 16	1428	{ 381 382 }	45	290
Harrow.....	J. H. Sharp.....	394,514	Dec. 11	1151	299	45	1299
Harrow.....	J. M. Ush.....	391,494	Oct. 23	1844	493	45	378
Harrow.....	L. J. Weintz.....	385,739	July 10	610	158	44	126
Harrow.....	E. E. Whipple.....	392,654	Nov. 13	706	178	45	736
Harrow.....	A. M. Woid.....	390,275	Oct. 2	105	30	45	24
Harrow and clod crusher.....	J. T. Leighton.....	378,011	Feb. 14	1008	263	42	703
Harrow and clod-crusher.....	J. T. Leighton.....	378,012	Feb. 14	1010	263	42	704
Harrow and cultivator. Combined.....	F. Bateman.....	377,920	Feb. 14	964	251	42	696
Harrow and cultivator. Combined revolving.....	L. S. Evans.....	383,286	May 22	2106	556	43	944
Harrow and cultivator. Convertible.....	J. H. Higgins.....	393,108	Nov. 20	1361	355	45	873
Harrow and pulverizer.....	C. W. Spittler and D. G. Pingle.....	399,985	Sept. 25	1807	479	44	1440
Harrow and pulverizer. Combined.....	G. P. Atchison.....	377,223	Jan. 31	2170	573	42	447
Harrow and pulverizer. Combined.....	J. F. Stark.....	385,382	July 3	60	18	44	14
Harrow and seeder. Combined disk.....	A. Corbin, Jr.....	389,548	Sept. 18	1133	298	44	1302
Harrow and seeder. Combined disk.....	F. H. Norton.....	394,128	Dec. 4	568	153	45	1180
Harrow attachment.....	D. B. Smith.....	393,344	Nov. 20	1700	449	45	941
Harrow, clod-crusher, and land-roller. Combined.....	G. W. Albaugh.....	376,841	Jan. 24	1639	429	42	335
Harrow. Disk.....	A. Corbin, Jr.....	391,908	May 1	17	5	43	518
Harrow. Disk.....	T. Maxon.....	391,258	Oct. 16	1514	402	45	306
Harrow. Disk.....	L. A. Richards.....	382,731	May 15	1287	337	43	775
Harrow. Disk.....	G. H. Sawyer.....	379,287	Mar. 13	616	169	42	1088
Harrow-disks. Machine for grinding.....	E. A. Sloan.....	388,732	Aug. 28	2337	629	44	1042
Harrow-disks. Manufacture of.....	W. J. Hogan.....	383,882	June 5	47	15	43	1130
Harrow for listed crops.....	H. A. Murphy.....	378,611	Feb. 28	1891	501	42	890
Harrow, leveler, and cultivator. Combined.....	P. N. Applegate.....	382,204	May 1	478	123	43	601
Harrow. Oscillating sulky.....	C. H. Weeks and W. Sellers.....	393,801	Dec. 4	93	26	45	1091
Harrow. Reversible folding.....	J. M. Shubert.....	379,826	Mar. 20	1430	380	42	1254
Harrow. Rotary.....	M. D. Bronner.....	387,136	July 31	2687	704	44	550
Harrow. Rotary.....	T. C. Cook.....	390,004	Sept. 25	1822	484	44	1444
Harrow. Rotary.....	W. A. and B. J. Smith.....	392,637	Nov. 13	766	194	45	748
Harrow. Spring-tooth.....	H. D. Babcock and J. E. Baird.....	389,044	Sept. 4	344	91	44	1138
Harrow. Spring-tooth.....	H. C. Reed and A. Clark.....	388,306	Aug. 21	1727	461	44	920
Harrow. Spring-tooth.....	R. A. Rose.....	381,171	Apr. 17	1327	354	43	274
Harrow. Spring-tooth.....	A. A. Stimson.....	390,812	Oct. 9	855	227	45	175
Harrow. Spring-tooth.....	L. D. Swart.....	377,053	Jan. 31	1925	506	42	398
Harrow. Sulky.....	T. G. Cook.....	393,692	Nov. 27	2236	{ 566 587 }	45	1056
Harrow. Sulky.....	M. S. and W. A. Doolittle.....	378,578	Feb. 28	1849	{ 488 489 }	42	881
Harrow-tooth.....	J. Brinkerhoff.....	390,065	Sept. 25	1924	507	44	1464
Harrow-tooth.....	H. L. Harwood and L. B. White.....	377,359	Jan. 31	2319	688	42	483
Harrow-tooth.....	G. Sweet.....	386,094	July 10	1121	229	44	227
Harrow-tooth and harrow attachment.....	W. H. Hobson.....	376,801	Jan. 24	1571	412	42	334
Harrow-tooth. Cultivating.....	C. C. Crumb.....	388,536	Aug. 28	2054	552	44	988
Harrow-tooth holder.....	W. S. Lawrence.....	379,018	Mar. 6	234	66	42	1010
Harrow. Machine for making disks for.....	W. J. Hogan.....	388,561	Aug. 28	2085	{ 561 562 }	44	994
Harrow. Spring-tooth for.....	W. M. Brinkerhoff.....	384,188	June 5	513	140	43	1221
Harvester.....	J. R. Beard.....	381,006	Apr. 24	1971	518	43	419
Harvester.....	J. S. Davis.....	384,025	June 5	267	76, 77	43	1173



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Harvester.....	J. S. Davis.....	388,765	Ang. 28	2384	{ 643 644 645 466 467	{ 44	1051
Harvester.....	G. Esterly.....	385,047	June 26	1817	{ 513 514 515 516	{ 43	1494
Harvester.....	J. B. Gemmill.....	377,067	Jan. 31	1951	{ 513 514 515 516	{ 42	403
Harvester.....	M. Kane.....	392,807	Nov. 13	941	{ 513 514 515 516	{ 45	782
Harvester.....	S. V. Kennedy.....	377,077	Jan. 31	1964	{ 513 514 515 516	{ 42	405
Harvester.....	S. D. Maddin.....	382,049	May 1	261	{ 67, 68 69 70 71	{ 43	561
Harvester.....	S. D. Maddin.....	395,284	Dec. 25	2123	{ 621 622 623 624	{ 45	1563
Harvester.....	W. H. Payne.....	392,687	Nov. 13	749	{ 190 191 192 193	{ 45	744
Harvester.....	W. Russell.....	390,141	Sept. 25	2033	{ 542 543 544 545	{ 44	1487
Harvester.....	C. F. Search.....	393,397	Nov. 27	1782	{ 471 472 473 474	{ 45	965
Harvester.....	C. F. Search.....	394,513	Dec. 11	1148	{ 298 299 300 301	{ 45	1298
Harvester.....	J. Shickle.....	382,910	May 15	1526	{ 399 400 401 402	{ 43	824
Harvester.....	G. W. Shuman.....	377,647	Feb. 7	442	{ 113 114 115 116	{ 42	579
Harvester.....	W. R. Steiner.....	377,091	Jan. 31	1989	{ 520 521 522 523	{ 42	411
Harvester.....	W. N. Whiteley and W. Bayley.....	381,308	Apr. 17	1511	{ 407 408 409 410	{ 43	311
Harvester and binder.....	J. Bachman.....	382,677	May 15	1215	{ 315 316 317 318	{ 43	761
Harvester and binder.....	W. N. Whiteley.....	376,763	Jan. 24	1503	{ 396 397 398 399	{ 42	311
Harvester and binder.....	W. N. Whiteley and W. Bayley.....	375,971	Jan. 3	332	{ 89 90 91 92	{ 42	60
Harvester and binder. Combined.....	W. N. Whiteley and W. Bayley.....	378,814	Feb. 28	2193	{ 583 584 585 586	{ 42	946
Harvester and binder. Grain.....	S. D. Locke.....	389,848	Sept. 18	1586	{ 421 422 423 424	{ 44	1389
Harvester and husker. Corn.....	C. F. Smith.....	377,649	Feb. 7	451	{ 115 116 117 118	{ 42	580
Harvester and thrasher. Combined.....	M. P. Farnham.....	378,581	Feb. 28	1854	{ 490 491 492 493	{ 42	882
Harvester and thrasher. Combined.....	D. C. Matteson.....	383,233	May 22	2032	{ 530 531 532 533	{ 43	930
Harvester and thrasher. Combined.....	J. Trethewey.....	380,000	Mar. 27	1704	{ 455 456 457 458	{ 42	1316
Harvester. Berry.....	G. Wilkin.....	382,745	May 15	1306	{ 343 344 345 346	{ 43	779
Harvester bundle-carrier.....	O. J. Foss.....	383,718	May 29	2150	{ 724 725 726 727	{ 43	1076
Harvester. Clover.....	A. W. Thomasson and R. S. Pence.....	378,184	Feb. 21	1259	{ 332 333 334 335	{ 42	758
Harvester. Clover-seed.....	H. Burfeind.....	383,796	May 29	2876	{ 756 757 758 759	{ 43	1100
Harvester. Corn.....	W. A. Conner.....	387,862	Aug. 14	993	{ 259 260 261 262	{ 44	771
Harvester. Corn.....	A. Hollingsworth.....	376,384	Jan. 10	926	{ 242 243 244 245	{ 42	186
Harvester. Corn.....	P. R. Hunt.....	382,684	Aug. 23	2270	{ 609 610 611 612	{ 44	1038
Harvester. Corn.....	W. H. Karicofe.....	385,632	July 3	451	{ 116 117 118 119	{ 44	88
Harvester. Corn.....	J. L. Lamont.....	378,551	Feb. 28	1809	{ 477 478 479 480	{ 42	873
Harvester. Corn.....	L. V. Lewis and S. S. Allen.....	394,704	Dec. 18	1474	{ 384 385 386 387	{ 45	1374
Harvester. Corn.....	J. T. McHenry.....	382,100	May 1	336	{ 8, 89 90 91 92	{ 43	575
Harvester. Corn.....	D. McKean.....	313,338	Nov. 20	1694	{ 447 448 449 450	{ 45	939
Harvester. Corn.....	J. A. Norton and J. A. Stones.....	381,163	Apr. 17	1316	{ 351 352 353 354	{ 43	272
Harvester. Corn.....	R. L. Pearson.....	389,004	Sept. 4	281	{ 75 76 77 78	{ 44	1126
Harvester. Corn.....	D. T. Phillips.....	378,521	Feb. 28	1762	{ 466 467 468 469	{ 42	864
Harvester. Corn.....	H. E. Reeves.....	388,150	Aug. 21	1491	{ 396 397 398 399	{ 44	872
Harvester. Corn.....	G. B. and J. T. Snow.....	385,286	June 26	2177	{ 557 558 559 560	{ 43	1567
Harvester. Cotton.....	O. T. Bugg.....	383,099	May 22	1833	{ 480 481 482 483	{ 43	892
Harvester. Cotton.....	O. T. Bugg and W. L. Langley.....	386,294	July 17	1420	{ 375 376 377 378	{ 44	291
Harvester. Cotton.....	J. J. Perkins.....	391,982	Oct. 30	2537	{ 686 687 688 689	{ 45	598
Harvester-frame.....	J. Miller.....	393,383	Nov. 27	1764	{ 467 468 469 470	{ 45	961
Harvester-frame.....	B. F. Stewart.....	386,733	July 10	598	{ 155 156 157 158	{ 41	124
Harvester-frame. Grain-binding.....	J. S. Davis.....	392,721	Nov. 13	799	{ 203 204 205 206	{ 45	755
Harvester. Grain.....	J. N. Miller.....	394,989	Dec. 25	1965	{ 506 507 508 509	{ 45	1478
Harvester. Grain.....	A. Stark.....	387,569	Aug. 7	569	{ 149 150 151 152	{ 44	682
Harvester. Grain-binding.....	S. V. Kennedy.....	376,199	Jan. 10	672	{ 178 179 180 181	{ 42	139
Harvester. Grain-binding.....	M. L. Nichols.....	381,080	Apr. 10	1192	{ 318 319 320 321	{ 43	240
Harvester. Grain-binding.....	A. O. Slentz.....	385,285	June 26	2176	{ 556 557 558 559	{ 43	1567
Harvester. Grain-binding.....	A. O. Slentz.....	388,793	Aug. 28	2426	{ 655 656 657 658	{ 44	1059
Harvester. Grain-binding.....	W. N. Whiteley.....	378,817	Feb. 28	2200	{ 586 587 588 589	{ 42	948
Harvester-guard renovator.....	G. W. East.....	388,543	Aug. 28	2063	{ 555 556 557 558	{ 44	990
Harvester. Low-down grain-binding.....	D. Strunk.....	379,830	Mar. 20	1436	{ 381 382 383 384	{ 42	1255
Harvester. Low-level self-binding.....	J. H. Pitkin and J. F. Steward.....	388,913	Sept. 4	160	{ 42, 43 44 45 46	{ 44	1103
Harvester-platforms. Carrier for.....	M. Dew.....	390,010	Sept. 25	1836	{ 486 487 488 489	{ 44	1446

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 'g	Vol.	Page.
Harvester-reel .....	M. A. Clapp .....	377,372	Feb. 7	7	2	42	496
Harvester-reel .....	M. A. Clapp .....	394,059	Dec. 4	477	127	45	1162
Harvester-reel .....	G. Esterly .....	384,139	June 5	438	122	43	1205
Harvester-reel .....	J. F. Steward .....	390,530	Oct. 2	471	123	45	95
Harvester-reel-driving mechanism .....	J. F. Steward .....	391,095	Oct. 16	1294	345	45	265
Harvester reel-support .....	J. S. Davis .....	389,837	Sept. 18	1564	346	44	1385
Harvester. Self-binding .....	S. V. Kennedy and C. A. Anderson .....	382,532	May 8	990	250	43	707
Harvester. Self-binding .....	L. W. Noyes .....	392,747	Nov. 13	838	213	45	762
Harvester. Self-binding .....	J. H. Pitkin and J. F. Steward .....	389,939	Sept. 25	1738	214	44	1421
Harvester. Self-binding .....	G. H. Spaulding .....	389,022	Sept. 4	314	82	44	1132
Harvester. Sugar-cane .....	H. Fatie .....	387,061	July 31	2558	83	44	530
Harvester-wheel .....	E. English .....	391,740	Oct. 23	2171	84	45	446
Harvesters. Adjustable wind-board for .....	H. J. Case .....	386,803	July 31	2168	571	44	455
Harvesters. Bundle-carrier for .....	D. H. Prewitt .....	383,009	May 15	1685	572	43	854
Harvesters. Bundle-carrier for self-binding .....	R. Perry .....	391,857	Oct. 30	2356	438	45	493
Harvesters. Cutting apparatus for .....	D. H. Bennett .....	394,441	Dec. 11	1046	640	45	1280
Harvesters. Cutting apparatus for .....	J. A. Blair and W. C. Bush .....	385,164	June 26	1985	273	43	1528
Harvesters. Draft-equalizer for .....	C. A. H. Landon .....	376,663	Jan. 17	1350	508	43	273
Harvesters. Folding platform for .....	S. F. Voorhes .....	395,537	July 3	308	354	42	62
Harvesters. Grain-adjusting mechanism for .....	G. H. and J. F. Steward .....	391,094	Oct. 16	1992	79	45	264
Harvesters. Header attachment for .....	H. Bryan .....	387,763	Aug. 14	854	230	44	742
Harvesters. Horse-checking device for .....	D. C. Hall .....	387,230	Aug. 7	46	231	44	580
Harvesters. Knotter for .....	W. F. Geard .....	394,536	Dec. 11	1187	10	45	1305
Harvesters. Knotting mechanism for .....	R. Brown .....	379,886	Mar. 20	1537	309	45	1274
Harvesters. Picker-stem for cotton .....	W. L. Langley .....	382,535	May 8	998	405	43	708
Harvesters. Picker-stem for cotton .....	W. L. Langley .....	382,536	May 8	1000	406	43	709
Harvesters. Pitman-box for .....	A. W. Braman .....	384,504	June 12	1000	254	43	1318
Harvesters. Platform-adjustment for .....	C. F. Search .....	383,660	May 29	2656	260	43	1058
Harvesters. Reel-driving gear for .....	J. Agenten .....	384,109	June 5	386	704	43	1195
Harvesters. Sheaf-carrier for grain .....	W. Bell .....	382,404	May 8	791	705	43	669
Harvesters. Sheaf-carrier for self-binding .....	W. W. Barson .....	391,451	Oct. 23	1784	201	45	366
Harvesters. Sheaf-carrier for self-binding .....	L. W. Noyes .....	392,746	Nov. 13	836	212	45	762
Harvesters. Swathing attachment for .....	C. N. Owen .....	383,317	May 22	2147	213	43	952
Harvesting and husking machine. Corn .....	J. A. Hilbert .....	385,861	July 10	788	566	44	160
Harvesting-machine .....	A. Goodyear .....	381,232	Apr. 17	1400	209	43	290
Harvesting-machine .....	A. Stark .....	385,779	July 10	660	378	44	138
Harvesting-machine .....	J. F. Steward .....	390,531	Oct. 2	473	379	45	95
Harvesting machine. Corn .....	J. A. Stone .....	389,117	Sept. 4	476	123	44	1161
Harvesting machines. Divider for .....	S. W. McAlister .....	393,774	Dec. 4	59	133	45	1084
Harvesting-machines. Platform adjustment for .....	J. Q. Hart .....	391,845	Oct. 30	2340	634	45	489
Hasp-fastening for trunks, &c .....	J. Lines and M. A. Morris .....	390,492	Oct. 2	412	635	45	85
Hasp-lock .....	L. A. Brown .....	388,394	Aug. 28	1863	106	45	950
Hasp-lock .....	D. W. Fouts .....	395,221	Dec. 25	2339	497	44	1546
Hasp-lock .....	D. H. Kline and H. Williams .....	379,896	Mar. 20	1554	598	45	1276
Hasp-lock .....	C. E. Lee .....	393,163	Nov. 20	1434	409	45	888
Hasp-lock .....	L. Trabue .....	388,322	Aug. 21	1748	375	44	923
Hasp-support for cans or boxes .....	C. E. Pierce .....	391,074	Oct. 16	1263	468	45	259
Hat and clothes hook. Combined .....	W. W. Shoe .....	394,792	Dec. 18	1631	336	45	1407
Hat and coat rack .....	W. L. Caldwell .....	377,737	Feb. 14	583	427	42	620
Hat and coat rack .....	F. Clemens .....	379,152	Mar. 6	416	150	42	1044
Hat and coat rack. Combined .....	R. N. McArthur .....	382,315	May 8	650	117	43	643
Hat and coat rack. Folding .....	G. D. Tolman .....	385,153	June 26	1973	166	43	1526
Hat-block .....	R. H. Savage .....	390,404	Oct. 2	294	77	45	62
Hat-bodies. Coating, plaiting, and napping .....	G. Atherton .....	389,131	Sept. 4	494	126	44	1164
Hat-box. Folding .....	S. E. Surles .....	380,364	Apr. 3	91	27, 28	43	20
Hat-brim-curling machine .....	J. Bigelow .....	395,117	Dec. 25	2158	557	45	1516
Hat-brim-curling machine .....	J. Bigelow .....	395,118	Dec. 25	2161	558	45	1516
Hat-brims. Machine for planing the folded edges of .....	R. Eickemeyer .....	386,457	July 24	1665	439	44	352
Hat-brims. Machine for shaping .....	L. H. Hoyt .....	388,492	Aug. 28	1992	440	44	977
Hat-brims. Rounding-jack for .....	M. Hild .....	377,154	Jan. 31	2072	536	42	427
Hat conformator and stretcher. Combined .....	H. Lyons .....	390,178	Sept. 25	2095	537	44	1499
Hat-die .....	F. S. Hilton .....	391,147	Oct. 16	1360	558	45	277
Hat. Felt .....	F. W. Cheetham .....	394,336	Dec. 11	901	363	45	1254
Hat for firemen .....	T. Anderson .....	381,666	Apr. 24	2051	237	43	435
Hat-hanger .....	P. F. Coughlan .....	391,784	Oct. 30	2241	537	45	469
Hat-hanger .....	S. L. Drake .....	384,897	June 19	1580	610	43	1437
Hat-label holder .....	E. Pronis .....	393,854	Dec. 4	178	411	45	1105
Hat or bonnet holder .....	N. E. Veatch .....	393,595	Nov. 27	2082	48	45	1026
Hat or bonnet holder for tables and wardrobes .....	V. M. Hollyday .....	381,016	Apr. 10	1079	546	43	218
Hat or cap .....	A. Brahadi .....	376,705	Jan. 17	1414	286	43	285
Hat-rack for hat-manufacturers .....	H. I. Winterfield .....	376,933	Jan. 24	1759	372	42	358
Hat-setting machine .....	W. J. Gordiner and J. F. Curran .....	392,725	Nov. 13	811	463	45	757
Hat-sizing machine .....	J. S. Taylor .....	393,866	Dec. 4	199	206	45	1109
Hat-sizing machines. Felting-roll for .....	A. T. Clark .....	378,573	Feb. 28	1844	54	42	880
Hat-sizing roll .....	C. H. Sprague and W. J. Wiley .....	383,998	June 5	233	487	43	1166
Hat-starting machine .....	R. Barrett .....	383,270	May 22	2082	68	43	940

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Hat-stretcher .....	G. E. Schellman .....	389,014	Sept. 4	306	89	44	1131
Hat stretching and blocking machine .....	W. Beckerie .....	386,955	July 31	2415	635	44	501
Hat-stretching machine .....	W. Simmonds .....	383,254	May 22	2056	540	43	936
Hat sweat-band .....	T. W. Bracher .....	380,175	Mar. 27	1955	521	42	1345
Hat sweat-band .....	J. W. Gosling .....	389,962	Sept. 25	1766	468	44	1432
Hat sweat-band .....	W. F. Greene .....	386,634	July 24	1910	505	44	399
Hat-trimming machine .....	S. T. Newman .....	387,692	Aug. 14	754	192 193	44	723
Hat. Ventilated .....	M. Postlethwaite .....	385,282	June 26	2172	554 555	43	1566
Hat-ventilator .....	C. Potter .....	386,930	July 31	2382	626	44	494
Hat-wire .....	A. Cary .....	381,530	Apr. 24	1862	492	43	397
Hat-wire .....	F. D. Fry .....	385,410	July 3	109	31	44	24
Hat-wires. Machine for applying clasps to .....	J. Nutt .....	379,876	Mar. 20	1522	401 402	42	1271
Hat-wires. Machine for bending .....	J. Nutt .....	376,608	Jan. 17	1251	328 329	42	255
Hats. Adjustable block for stretching .....	J. E. McLoughlin .....	388,497	Aug. 28	2002	538	44	978
Hats, caps, &c. Manufacture of felt .....	F. W. Chettham .....	382,798	May 15	1381		43	793
Hats. Machine for hardening .....	S. C. Palmer .....	382,379	May 8	757	192 193	43	662
Hats. Manufacture of felt .....	C. Vero .....	392,648	Nov. 13	698	175	45	734
Hats. Mourning-band for .....	J. W. Corey .....	376,428	Jan. 17	996	261	42	206
Hats. Rest for packing .....	J. W. Seymour .....	392,074	Oct. 30	2673	727	45	554
Hats. Sweat-band for .....	T. W. Bracher .....	381,208	Apr. 17	1374	367	43	223
Hats. Sweat-band for .....	T. W. Bracher .....	385,092	June 26	1882	481	43	1507
Hatch-door .....	W. Stevens .....	380,410	Apr. 3	152	43	43	32
Hatchet and plane. Combined .....	J. Brandt .....	379,677	Mar. 20	1196	316 317	42	1207
Hatchet. Carpenter's .....	J. J. Stoppel .....	380,227	Mar. 27	2026	541	42	1379
Hatchway .....	F. L. Darach .....	376,864	Jan. 24	1669	436	42	340
Hatchway .....	J. Engel .....	392,546	Nov. 6	541	137	45	698
Hatchway gate. Elevator .....	R. M. Kershaw .....	390,864	Oct. 9	928	245	45	188
Hatchway gate. Elevator .....	G. S. Nickum and H. P. Bunker .....	387,653	Aug. 14	694	179	44	712
Hatchway-gate for elevators .....	C. M. Greenman .....	382,037	May 1	246	63	43	558
Hatchway. Self-closing .....	R. D. Thackston .....	386,366	July 17	1513	400	44	309
Hatchways for elevators. Device for automatically operating .....	J. W. Potts .....	375,894	Jan. 3	221	60, 61	42	47
Hawser-spile. Rotating .....	F. G. Johnson .....	391,152	Oct. 16	1366	365	45	278
Hay and fodder fork .....	Z. S. and M. C. Randleman .....	384,281	June 12	660	177	43	1256
Hay and straw burner .....	H. A. Fisher .....	391,464	Oct. 23	1802	482	45	369
Hay and straw burner .....	O. E. Mesick .....	377,208	Jan. 31	2148	568	42	443
Hay-binder .....	C. W. Baker .....	379,555	Mar. 20	1013	271	42	1173
Hay-burner .....	G. Laube .....	389,393	Sept. 11	905	236	44	1252
Hay-cap .....	J. Brady .....	384,957	June 26	1663	432	43	1462
Hay-carrier .....	L. and E. Clark .....	373,190	Feb. 21	1267	335	42	760
Hay-carrier .....	G. H. Fowler .....	384,968	June 26	1678	436	43	1465
Hay-carrier .....	W. S. and E. J. Risley .....	376,109	Jan. 10	535	143	42	114
Hay-carrier .....	A. W. Tutton .....	380,412	Apr. 3	154	44	43	32
Hay-carrier track .....	L. Y. Myers .....	394,991	Dec. 25	1967	507	45	1478
Hay-carrier-track hanger .....	W. H. Burnham and J. H. Miller .....	387,142	July 31	2695	706	44	551
Hay-elevating device .....	S. G. Miller .....	386,338	July 17	1474	391	44	301
Hay-elevator .....	P. F. Chambard .....	377,063	Jan. 31	1946	511 512	42	402
Hay-fork. Horse .....	J. W. Collins .....	379,448	Mar. 13	845	228	42	1133
Hay-hook attachment .....	T. H. Brown .....	375,865	Jan. 3	183	50, 51	42	40
Hay-knife .....	C. C. Brooks .....	386,183	July 17	1246	332	44	259
Hay-loader .....	E. L. Hay .....	381,779	Apr. 24	2205	577 578	43	465
Hay-loader .....	C. A. Henry .....	384,205	June 5	540	148	43	1226
Hay-loader .....	C. C. and D. C. Jewett .....	381,248	Apr. 17	1438	386 387	43	295
Hay-loader .....	N. S. Johnson .....	381,699	Apr. 24	2097	549	43	444
Hay-loader .....	G. L. McNutt .....	390,090	Sept. 25	1965	523	44	1473
Hay-loader .....	W. S. Nichols .....	385,281	June 26	2167	553 554	43	1565
Hay-loader .....	F. Strub and W. Nendel .....	379,341	Mar. 13	692	187	42	1103
Hay-manger .....	D. Kline .....	376,529	Jan. 17	1140	299	42	233
Hay or grain cock weather-shield .....	J. A. and L. R. Symmes .....	388,795	Aug. 28	2429	656	44	1059
Hay or grain elevator .....	E. D. Mead .....	377,492	Feb. 7	215	52	42	536
Hay or grain unloader .....	A. P. Boyer .....	377,012	Jan. 31	1873	493	42	388
Hay or straw grappling fork .....	E. V. R. Gardner .....	384,970	June 26	1681	436 437	43	1466
Hay or straw stacker .....	J. A. Edwards and E. Walton .....	387,501	Aug. 7	449	118	44	661
Hay-press .....	J. R. and A. W. Bigham .....	387,039	July 31	2330	665 666	44	524
Hay-press .....	R. A. Bowen and J. M. Eaton .....	391,680	Oct. 23	2086	565	45	429
Hay-press .....	G. Ertel .....	378,197	Feb. 21	1275	337 338	42	762
Hay-press .....	T. S. Gorrell and E. M. Tabbs .....	381,007	Apr. 10	1069	283	43	216
Hay-press .....	D. J. and I. W. Hyneman .....	377,458	Feb. 7	164	38	42	526
Hay-press .....	W. A. Laidlaw. (Reissue) .....	10,954	Aug. 28	2447	660	44	1063
Hay-press .....	F. McKinney .....	382,822	May 15	1408	369 370	43	860
Hay-press .....	T. and A. Parrent .....	392,453	Nov. 6	412	102 103	45	672
Hay-press .....	E. Prengel .....	382,664	May 8	1192	310	43	748
Hay-press .....	A. Veilleux .....	387,667	Aug. 14	711	183	44	716
Hay-rack .....	W. E. Deakins .....	388,025	Aug. 21	1258	341 342	44	831
Hay-rack .....	C. E. Hagerman .....	380,106	Mar. 27	1864	495	42	1346
Hay-rack .....	G. W. Light .....	375,824	Jan. 3	133	39	42	31
Hay-rack .....	D. C. Roby .....	382,328	May 8	673	170	43	647
Hay-rack .....	J. Weiss .....	391,668	Oct. 23	2072	561	45	426

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Hay-rake.....	T. F. and M. O. Godding .....	353,454	May 29	2349	625	43	995
Hay-rake.....	P. D. Hardy .....	394,647	Dec. 18	1384	361 362 638 639	45	1356
Hay rake and cocker .....	N. J. Nilson .....	383,479	May 29	2398	443 444	43	1005
Hay rake and loader .....	C. P. Slaght .....	372,466	Feb. 23	1690	541 542 563	42	848
Hay rake and ricker. Combined.....	R. O. Davis.....	385,252	June 26	2122	502 503	43	1557
Hay rake and tedder. Combined .....	I. L. Landis and A. Iske.....	380,122	Mar. 27	1887	171	42	1351
Hay-rake. Horse .....	J. G. Alexander .....	376,175	Jan. 10	642	284	75	43
Hay-rake. Horse .....	J. H. Bally .....	382,067	May 1	284	334	88	45
Hay-rake. Horse .....	D. Bollinger .....	390,437	Oct. 2	334	1873	500	44
Hay-rake. Horse .....	B. Desautels .....	388,401	Aug. 28	1873	519	44	952
Hay-rake. Horse .....	J. A. Edwards and E. Walton .....	387,502	Aug. 7	452	110	44	661
Hay-rake. Horse .....	A. F. Fairchild .....	385,604	July 3	408	104	44	80
Hay-rake. Horse .....	I. N. Gordon .....	386,312	July 17	1445	322	44	295
Hay-rake. Horse .....	D. F. Graham .....	395,132	Dec. 25	2183	562	45	1520
Hay-rake. Horse .....	T. W. Greene .....	377,103	Jan. 31	2011	527	42	414
Hay-rake. Horse .....	J. H. Jones .....	379,895	Mar. 20	1553	409	42	1276
Hay-rake. Horse .....	G. Keith .....	381,840	Apr. 24	2314	601	43	424
Hay-rake. Horse .....	E. P. Lynch .....	387,172	July 31	2733	717	44	559
Hay-rake. Horse .....	E. McGovney .....	394,198	Dec. 11	678	182	45	1210
Hay-rake. Horse .....	M. L. Milam .....	387,530	Aug. 7	489	128	44	668
Hay-rake. Wheel .....	H. W. Kramer .....	386,593	July 24	1861	491	44	388
Hay-rakes. Cleaner-arm for the teeth of horse .....	N. Stafford .....	381,592	Apr. 24	1950	514	43	415
Hay raker and loader .....	J. H. and P. Lux and S. Ede .....	380,336	Apr. 3	43	15, 16	43	10
Hay raking and loading apparatus .....	M. O. Royce .....	380,897	July 31	2330	612	44	484
Hay-ricking device .....	H. A. Alden .....	389,537	Sept. 18	1108	293	44	1297
Hay-sling .....	A. and C. A. Church .....	384,960	June 26	1667	433	43	1493
Hay-sling .....	S. G. Miller .....	386,337	July 17	1473	390	44	301
Hay-sling .....	W. G. Ricker .....	392,690	Nov. 13	755	192	45	745
Hay-sling .....	J. Toney .....	393,940	Dec. 4	200	82	45	1130
Hay-stacker .....	D. M. Campbell .....	382,213	May 1	487	196	43	613
Hay-stacker .....	A. L. Courtwright .....	379,102	Mar. 6	354	101	42	1032
Hay-stacker .....	J. J. Wagaman .....	387,934	Aug. 14	1121	299	44	796
Hay-stacker .....	M. A. Yeakley .....	386,518	July 24	1758	464 465	44	368
Hay-tedder .....	G. H. Earnest .....	383,872	June 5	32	10, 11	43	1127
Hay-tedder .....	P. E. Little .....	393,115	Nov. 20	1369	357	45	874
Hay-tedder .....	A. D. Lovett and E. S. Goff. (Reissue.) .....	10,916	Mar. 27	2133	570	42	1401
Hay-turning fork .....	J. Frech and E. Missel .....	389,069	Sept. 4	383	100	44	1146
Hay unloader and stacker .....	O. Hoyt .....	378,200	Feb. 21	1282	339	42	764
Head-light. Locomotive .....	A. F. Prahm .....	393,173	Nov. 20	1448	378	45	890
Head-rest .....	J. W. Campbell .....	382,949	May 15	1583	413	43	835
Head-rest .....	G. M. Dillon and J. H. Bevington .....	380,251	Mar. 27	2059	550	42	1386
Head-rest .....	G. M. Dillon and J. H. Bevington .....	380,252	Mar. 27	2060	551	42	1386
Head-rest .....	C. W. Hooven .....	394,271	Dec. 11	797	211	45	1233
Head-rest .....	H. H. Parkhill .....	389,938	Sept. 25	1737	460	44	1426
Head-rest .....	E. T. Ryan .....	379,987	Mar. 27	1684	450	42	1312
Head-rest .....	D. L. Snediker, J. R. Graham, F. D. McCollum, and I. F. Snediker. ....	391,206	Oct. 16	1442	386	45	294
Head-rest for travelers. Portable.....	F. D. McCollum .....	392,212	Nov. 6	49	13	45	604
Head-rest. Pocket .....	A. W. Harrison .....	394,649	Dec. 18	1387	362	45	1357
Head-rest. Portable .....	C. O. Widmayer .....	394,044	Dec. 4	452	121	45	1158
Head-wear. Lady's .....	A. Schultz .....	385,643	July 3	468	121	44	91
Reader and thrasher. Combined .....	J. Minges .....	393,847	Dec. 4	166	45	45	1103
Reader and thrasher. Combined .....	G. C. Reynolds, J. and W. Paterson .....	381,723	Apr. 24	2136	559	43	452
Headlight. Locomotive .....	L. H. McKee .....	379,539	Mar. 13	984	265	42	1159
Hearse .....	M. F. Deininger .....	380,622	Apr. 3	474	134	43	96
Heat and power. Means for supplying .....	W. E. Prall .....	379,283	Mar. 13	607	167	42	1047
Heat and power. Plant for supplying .....	R. R. Zell .....	386,862	July 31	2281	600	44	475
Heat and power supply system .....	T. R. Timby .....	379,741	Mar. 20	1294	345	42	1227
Heat and power. Supplying .....	W. E. Prall .....	376,836	Jan. 24	1615	423	42	331
Heat and power to large districts of buildings. Means for supplying .....	W. E. Prall .....	382,383	May 8	764	194	43	664
Heat and power to large districts of buildings. Supplying .....	W. E. Prall .....	382,384	May 8	766	194 195	43	665
Heat and steam or water power to cities, towns, &c. Means for supplying .....	W. E. Prall. (Reissue).....	10,923	Apr. 17	1842	487	43	376
Heat. Apparatus for chemically producing .....	W. G. MacLaughlin .....	387,089	July 31	2604	684	44	537
Heat collecting and diffusing apparatus .....	T. Pickup .....	385,571	July 3	361	94	44	72
Heat developer and radiator .....	W. M. Jackson .....	384,365	June 12	794	207	43	1279
Heat. Means for utilizing boiler, furnace, and exhaust-steam .....	W. Oliphant .....	390,511	Oct. 2	444	115	45	90
Heat-regulator. Automatic electric .....	W. A. Connelly .....	391,783	Oct. 30	2239	609	45	469
Heater:							
See Air-heater. Open-front heater.							
Barrel-heater. Sad-iron heater.							
Car-heater. Sad-iron and plate heater.							
Curling-iron heater. Steam-heater.							
Electric heater. Steam and hot-air heater.							
Electrical heater. Steam and warm-air heater.							
Feed-water heater. Tank-heater.							
Flat-iron heater. Tire-heater.							
Grain-heater. Water-heater.							
Hot-air and hot-water heater. Water or liquid heater.							
Hot-water heater. Wheat-heater.							
Liquid-heater.							
Heater .....	F. K. Baoyerlin .....	395,200	Dec. 25	2291	588	45	1538
Heater .....	E. Garney .....	389,459	Sept. 11	1003	268	44	1271
Heater .....	A. W. Herr .....	386,127	July 17	1168	311	44	243

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Heater .....	S. J. McDowell and E. O. Bicknell.	392,162	Oct. 30	2822	765	45	583
Heater and ventilator. Combined .....	B. F. W. Urban .....	392,475	Nov. 6	443	{ 111 112 }	{ 45 44 }	{ 678 669 }
Heater for animal drinking-troughs .....	A. M. Parmenter .....	387,535	Aug. 7	496	130	44	669
Heater for cars and buildings .....	T. McGossau .....	381,806	Apr. 24	2345	588	43	472
Heater for muffs, &c. ....	F. Hiller, Jr. ....	381,549	Apr. 24	1885	497	43	401
Heater for watering-tanks .....	A. McGowen .....	386,645	July 24	1929	510	41	402
Heating air, steam, &c. Apparatus for .....	W. H. Coleman .....	393,540	Nov. 27	2012	526	45	1011
Heating and steaming comminuted materials. Apparatus for .....	A. C. Nagel, R. H. Kaemp, and A. W. F. G. Lindebrügge.	393,023	Nov. 20	1348	324	45	851
Heating and ventilating apparatus. ....	E. T. Johnson .....	376,745	Jan. 24	1473	389	42	305
Heating and ventilating apparatus. ....	E. T. Johnson .....	376,746	Jan. 24	1475	3-9	42	306
Heating apparatus .....	E. E. Gold .....	388,772	Aug. 28	2399	617	41	1052
Heating apparatus .....	C. T. Johns, M. C. Baker, and C. D. Everett.	390,172	Sept. 25	2084	556	44	1497
Heating apparatus. Electrical .....	J. Wiest .....	389,729	Sept. 18	1423	371	44	1357
Heating apparatus for buildings .....	E. N. Gates .....	392,551	Nov. 6	548	138	45	699
Heating apparatus. Mural .....	J. D. Parker .....	389,003	Sept. 4	280	74.75	44	1126
Heating by compressed hot or superheated air .....	T. J. Simpson .....	381,589	Apr. 24	1944	{ 512 513 }	{ 43 43 }	{ 413 413 }
Heating by electricity .....	E. E. Ries .....	381,815	Apr. 24	2260	{ 590 591 }	{ 43 44 }	{ 475 961 }
Heating, cooking, and vaporizing apparatus. Portable combination gas .....	H. P. Miller .....	388,432	Aug. 28	1915	511	44	961
Heating device .....	W. Vogel .....	390,194	Sept. 25	2113	{ 563 564 }	{ 44 45 }	{ 1503 317 }
Heating device. Submerged .....	T. Cascaden .....	391,297	Oct. 16	1571	417	45	317
Heating. Electro-chemical .....	E. E. Ries .....	381,818	Apr. 24	2275	{ 593 594 }	{ 43 43 }	{ 477 477 }
Heating-furnace .....	E. W. Anthony .....	370,711	Apr. 10	611	{ 167 168 }	{ 43 43 }	{ 131- 1109 }
Heating-furnace .....	J. W. Clark .....	379,364	Mar. 13	722	197	42	1109
Heating-furnace .....	F. Kernan, Jr. ....	383,469	May 29	2385	635	43	1002
Heating-furnace .....	F. A. Magee and S. Van Vorst.	388,293	Aug. 21	1701	{ 453 454 }	{ 41 41 }	{ 915 915 }
Heating-furnace .....	W. Sutcliffe .....	377,279	Jan. 31	2255	596	42	462
Heating-furnace .....	J. White .....	381,307	Apr. 17	1509	407	43	310
Heating furnace. Air .....	A. R. Smith .....	376,682	Jan. 17	1378	263	42	277
Heating furnace and stove .....	G. Schreyer .....	379,990	Mar. 27	1688	451	42	1313
Heating purposes. Apparatus for vaporizing and burning non-explosive oils for .....	I. Hayes .....	394,179	Dec. 11	651	175	45	1205
Heating retorts and muffles. Apparatus for .....	A. Klönne .....	378,097	Feb. 21	1127	295	42	735
Heating system .....	J. F. McElroy .....	391,326	Oct. 16	1607	425	45	324
Heating system. Central-station .....	A. V. Abbot and F. C. F. Knaak.	385,399	July 3	91	25.26	44	19
Heating system. Central-station .....	A. V. Abbot and F. C. F. Knaak.	387,201	Aug. 7	1	1	44	573
Heating system. Electric .....	E. E. Ries .....	381,817	Apr. 24	2271	{ 592 593 }	{ 43 43 }	{ 476 476 }
Heating system. Steam .....	T. J. Kieley .....	391,415	Oct. 23	1732	462	45	355
Heating water and other liquids. Apparatus for .....	W. T. Sugg .....	383,921	June 5	115	33	43	1143
Heating water by gas. Device for .....	W. M. Brown .....	391,399	Oct. 23	1712	455	45	351
Hedge .....	P. M. Mishler .....	380,448	Apr. 3	213	57	43	43
Hedge .....	J. A. Mitchell .....	380,449	Apr. 3	213	58	43	43
Hedge .....	J. A. Mitchell .....	380,450	Apr. 3	214	58	43	43
Hedge-trimmer .....	C. T. Swartz .....	376,054	Jan. 3	459	{ 123 124 }	{ 42 42 }	{ 93 372 }
Hedge-trimming machine .....	R. W. Oliver .....	381,508	Apr. 17	1824	482	43	372
Heel-attaching machine .....	F. F. Raymond, 2d .....	377,958	Feb. 14	933	{ 242 243 }	{ 42 42 }	{ 688 688 }
Heel-attaching machine .....	F. F. Raymond, 2d .....	394,298	Dec. 11	839	{ 222 223 }	{ 45 45 }	{ 1240 450 }
Heel heading and milling tool .....	C. F. Leighton .....	391,753	Oct. 23	2189	590	45	450
Heel-heading machine .....	J. H. Ryder .....	388,790	Aug. 28	2422	653	44	1058
Heel-blanks. Manufacture of loaded .....	F. F. Raymond, 2d .....	386,656	July 24	1950	515	44	406
Heel-burnisher .....	C. J. Addy .....	385,291	June 26	2189	{ 559 560 }	{ 43 43 }	{ 1569 1147 }
Heel-burnishing machine .....	C. J. Addy .....	383,934	June 5	439	40	43	1147
Heel-burnishing machine .....	J. H. Busell .....	376,066	Jan. 10	476	{ 128 129 }	{ 42 42 }	{ 103 753 }
Heel-burnishing machine .....	J. H. Busell .....	392,715	Nov. 13	792	201	45	753
Heel-burnishing machine .....	W. C. Evans .....	385,702	July 10	553	141	44	115
Heel-burnishing tool .....	J. H. Busell .....	392,716	Nov. 13	793	202	45	754
Heel-compressing machine .....	F. F. Raymond, 2d .....	376,754	Jan. 24	1487	392	42	308
Heel-compressing machine .....	F. F. Raymond, 2d .....	376,908	Jan. 24	1725	{ 453 454 }	{ 42 42 }	{ 352 61 }
Heel. Elastic or spring .....	E. A. Munger .....	380,508	Apr. 3	303	85	43	61
Heel-filing machine .....	A. K. Washburn .....	389,994	Sept. 25	1817	481	44	1442
Heel forming and attaching machine .....	F. F. Raymond, 2d .....	378,216	Feb. 21	1303	{ 345 346 }	{ 42 42 }	{ 768 52 }
Heel-loading machine .....	E. B. Allen .....	375,913	Jan. 3	247	67	42	52
Heel-machine .....	G. Bresse .....	388,255	Aug. 21	1641	{ 438 439 }	{ 44 44 }	{ 904 367 }
Heel-machine .....	J. H. Cunningham .....	381,493	Apr. 17	1798	478	43	367
Heel-machine .....	A. J. Langelier .....	388,884	Sept. 4	115	{ 31 32 33 }	{ 44 44 }	{ 1094 873 871 }
Heel-making die .....	T. Hussey .....	393,111	Nov. 20	1365	356	45	873
Heel-making machine .....	C. W. Glidden .....	393,104	Nov. 20	1354	353	45	871
Heel-mold .....	E. J. Le Gay .....	382,888	May 15	1498	393	43	819
Heel nailing and breasting machine .....	E. B. Allen .....	377,255	Jan. 31	2265	{ 598 599 }	{ 42 42 }	{ 463 560 }
Heel nailing and trimming machine .....	F. F. Raymond, 2d .....	377,577	Feb. 7	334	86	42	560

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Heel-nailing machine	E. B. Allen	384,343	June 12	756	198	43	1272
Heel-nailing machine	H. W. Horne and J. Henderson	389,077	Sept. 4	392	102	44	1148
Heel-nailing machine	E. Merritt	385,748	July 19	626	164	44	130
Heel-nailing machine	F. F. Raymond, 2d	377,172	Jan. 31	2094	552	42	433
Heel-nailing machine	F. F. Raymond, 2d	378,617	Feb. 28	1900	502 503	42	891
Heel-nailing machine	F. F. Raymond, 2d	379,816	Mar. 20	1404	374	42	1249
Heel-nailing. Sing for	F. F. Raymond, 2d	385,960	July 10	926	245	44	189
Heel-plate	G. Doney	382,694	May 15	1244	324	43	766
Heel-plate-attaching machine	W. J. Atwell	381,604	Apr. 24	1968	518	43	418
Heel-plate-attaching machine	W. J. Atwell	381,605	Apr. 24	1970	518	43	418
Heel-plate guide	R. H. Lewis	379,898	Mar. 20	1557	410	42	1277
Heel-protector	F. J. Herrick	382,260	May 1	563	142	43	617
Heel-Spring	E. A. Munger	380,507	Apr. 3	300	87	43	61
Heel-stiffener machine	G. A. Fullerton	381,753	June 19	1362	356	43	1396
Heel-stiffener machine	G. A. Fullerton	390,585	Oct. 2	542	142 143 144	45	109
Heel-stiffener machine	G. A. Knox	392,564	Nov. 6	563	142	45	703
Heel-stiffening machine	E. H. Taylor	392,975	Nov. 13	1174	305	45	829
Heel-trimmer	J. H. Busell	390,750	Oct. 9	771	250	45	159
Heel-trimming machine	E. B. Allen	377,284	Jan. 31	2261	598	42	463
Heel-trimming machine	F. N. Ethridge	376,433	Jan. 17	1004	263 264	42	208
Heel-trimming machine	F. N. Ethridge	391,306	Oct. 16	1581	420	45	319
Heel-trimming machine	C. W. Glidden	377,302	Jan. 31	2290	605	42	469
Heel-trimming machine	C. W. Glidden	393,103	Nov. 20	1353	353	45	871
Heel-trimming machine	A. McDowell	392,875	Nov. 13	1029	264	45	801
Heel-trimming machine	O. L. Noble and E. Childs	389,759	Sept. 18	1459	382 383	44	1364
Heel-trimming machine	C. H. Trask	388,230	Aug. 21	1594	425 426	44	893
Heel-weight	G. Howland	392,154	Oct. 30	2812	763	45	582
Heels. Forming and attaching	F. F. Raymond, 2d	379,629	Mar. 6	249	70, 71	42	1012
Heeling-machine	A. E. Ellis	388,544	Aug. 28	2664	555	44	900
Heeling-machine	C. W. Glidden	377,300	Jan. 31	22-6	604	42	468
Heeling-machine	C. W. Glidden	377,301	Jan. 31	2288	605	42	468
Heeling-machine	C. W. Glidden	382,762	May 15	1326	349	43	763
Heeling-machine	M. A. Tyler and E. Merritt	382,121	May 1	361	95	43	580
Heeling-machines. Breastst attachment for	E. A. Lupien	382,615	May 8	1121	288 289	43	733
Heeling-machines. Breastst attachment for	M. C. McGenness and J. Tweedie	390,384	Oct. 2	264	70	45	56
Heeling-machines. Manufacture of nail-dies for	E. Merritt	388,535	Aug. 28	2053	552	44	988
Height and the weight of persons. Machine for determining or indicating the	C. C. Clawson	379,859	Mar. 20	1156	394 395	42	1265
Heliographic engraving	G. W. Casilear	387,490	Aug. 7	428		41	657
Hemp, jute, ramie, &c. Machine for disintegrating	J. J. Green	388,663	Aug. 28	2239	600 601	44	1022
Hemp, ramie, &c. Machine for disintegrating	J. J. Green	388,662	Aug. 28	2237	600	44	1022
Hemp, ramie, &c. Machine for treating	J. J. Green	388,664	Aug. 28	2241	601	44	1023
Hemp, ramie, &c. Machine for treating	J. J. Green	388,665	Aug. 28	2243	601	44	1023
Hemstitching	C. H. Owen	385,772	July 10	600	113	44	137
Hide lifter and carrier for tanneries	A. M. Fletcher	378,670	Feb. 28	1982	525	42	907
Hide-scraping machine	A. Ott	387,903	Aug. 14	1061	2-0	44	782
Hides. Machine for stretching	G. E. Danforth	387,402	Aug. 7	300	77	44	629
Hides or skins. Machine for shaving	J. Rood and I. Vaughan	383,914	June 5	104	30	43	1141
Hides or skins. Machine for softening	N. Weber	392,141	Oct. 30	2792	757 758	45	578
High-speed engine	P. W. Willans and M. H. Robinson.	380,375	Apr. 3	106	31	43	23
Hinge	W. Andrew	395,196	Dec. 25	2287	587	45	1537
Hinge	B. S. Atwood	378,861	Mar. 6	3	1	42	967
Hinge	F. P. Bailey	375,792	Jan. 3	95	98	42	23
Hinge	C. H. Beer	382,860	May 15	1457	3-2	43	810
Hinge	D. N. Bryant	386,800	July 31	2166	570	41	455
Hinge	A. Claypool	376,027	Jan. 3	423	112	42	85
Hinge	G. Dahlman	386,186	July 17	1250	333	41	260
Hinge	J. M. Gran	388,409	Aug. 28	1882	503	44	954
Hinge	L. Hillebrand	393,305	Nov. 20	1641	433	45	929
Hinge	F. H. Knight	377,310	Jan. 31	2301	609	42	470
Hinge	H. Thumel	391,827	Oct. 30	2313	428	45	484
Hinge	J. Wien	385,156	June 26	1976	506	43	1527
Hinge. Butt.	E. Prescott and W. E. Locke	378,718	Feb. 28	2047	540	42	919
Hinge for traveling-bags, &c.	C. Reinisch	385,138	June 26	1950	499	43	1521
Hinge for trunks, bags, &c. Stay-	W. Durand	385,255	June 26	2128	513	43	1558
Hinge. Friction	F. W. Mix	379,901	Mar. 20	1560	411	42	1277
Hinge-gage	H. G. Fulton	386,428	July 17	1616	424	41	333
Hinge. Gate	J. H. Davis	387,771	Aug. 14	864	223	41	714
Hinge. Gate	O. M. Hawley	378,199	Feb. 21	1281	339	42	764
Hinge. Gate	J. B. Pugh	377,910	Feb. 14	862	222	42	675
Hinge-leaves. Making	W. H. Hart	389,308	Sept. 11	1067	284	44	1282
Hinge. Lock	L. Abbott	393,200	Nov. 20	1492	370	45	899
Hinge. Lock	T. S. Beebe	385,162	June 26	1282	508	43	1528
Hinge. Lock	M. A. Cutter	393,247	Nov. 20	1518	398	45	905
Hinge. Lock	L. W. Nimschke	394,788	Dec. 18	1625	426	45	1406
Hinge. Lock	W. P. Patton	394,605	Dec. 18	1312	311	45	1344
Hinge. Lock	T. Spriggs	395,086	Dec. 25	2100	541	45	1506
Hinge. Lock	L. Tilton	390,418	Oct. 2	310	81	45	66
Hinge. Lock	J. Wolf	379,921	Mar. 20	1586	418	42	1282
Hinge-mortiser	J. M. Mathews	379,076	Mar. 6	313	91	42	1024
Hinge. Sheet-metal	W. H. Hart and T. Corseaden	377,104	Jan. 31	2012	527	42	414
Hinge. Spring	P. R. Bartlett	393,350	Nov. 27	1714	453	45	952
Hinge. Spring	W. H. Beath	381,100	Apr. 17	1230	330	43	256



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Disg.	Vol.	Page.
Hinge. Spring.	W. H. Beath	390,054	Sept. 25	1908	503	41	1161
Hinge. Spring.	L. Bommer	383,554	May 29	2519	664	43	1027
Hinge. Spring.	L. Bommer	383,555	May 29	2520	665	43	1027
Hinge. Spring.	B. Colvin	395,266	Dec. 25	2400	615	45	1559
Hinge. Spring.	B. Colvin and J. Wolfley	375,803	Jan. 3	108	31	42	25
Hinge. Spring.	L. M. Devore	392,667	Nov. 13	724	184	45	733
Hinge. Spring.	L. M. Devore and F. W. Hoefer	389,450	Sept. 11	992	265	44	1269
Hinge. Spring.	H. F. Keil	387,421	Aug. 7	326	84	44	636
Hinge. Spring.	H. P. Kochsmeier	385,312	June 26	2218	569	43	1574
Hinge. Spring.	H. P. Kochsmeier and G. M. Waldorf. (Reissue.)	10,896	Jan. 31	2390	690	42	486
Hinge. Spring.	N. Linsley	393,376	Nov. 27	1755	465	45	959
Hinge. Spring.	D. C. Stover	391,096	Oct. 16	1296	346	45	265
Hinge. Spring.	D. C. Stover	391,433	Oct. 23	1758	471	45	360
Hinge. Spring.	D. C. Stover	391,434	Oct. 23	1759	471	45	360
Hinge. Spring.	G. M. Waldorf	389,865	Sept. 18	1628	430	44	1397
Hinge. Spring.	G. W. Warner	381,102	June 5	379	106	43	1193
Hinge. Spring.	G. W. Warner	381,103	June 5	380	107	43	1194
Hinge. Spring.	G. W. Warner	389,727	Sept. 18	1420	370	44	1356
Hinge stay. Bag.	J. C. Lynch	390,609	Oct. 2	569	151	45	114
Hinges. Manufacture of	G. Bayer	376,702	Jan. 17	1410	370	42	224
Hinges. Manufacture of butt-	H. Hoffman, Jr.	376,597	Jan. 17	1232	321	42	252
Hitching-post	F. D. Carleton	392,497	Nov. 6	471	119	45	684
Hitching-post	L. Dow	390,951	Oct. 9	1052	278	45	213
Hitching-strap fastener	S. E. Bauder	386,682	July 24	1982	523	41	412
Hobby-horse	W. E. Crandall	385,792	July 10	687	179	44	112
Hobby-horse	W. Davis	381,116	Apr. 17	1254	336	43	261
Hod-elevator	H. Curtis	377,741	Feb. 14	587	151	42	621
Hoe	G. Hain	386,197	July 17	1264	337	41	263
Hoe	J. M. Hefner	394,692	Dec. 18	1460	381	45	1371
Hoe	J. N. Parker	387,806	Aug. 14	911	236	41	754
Hoe	R. S. Rinker	378,723	Feb. 28	2054	542	42	920
Hoe	E. H. Sniblett	383,040	July 10	1036	375	44	212
Hoe	S. H. T. Tilghman	381,879	June 19	1561	406	43	1433
Hoe. Hand.	P. Jacobs	390,679	Oct. 9	667	178	45	141
Hoe. Vineyard or farm	E. Cartwright	394,641	Dec. 18	1377	360	45	1354
Hoe. Weeding.	W. Dages	392,412	Nov. 6	351	87	45	660
Hog-scraping machine	J. Canning and G. A. Lowry	377,353	Jan. 31	2370	684 685	42	481
Hog-tendon cutter	D. A. Runnels	379,286	Mar. 13	616	168	42	1088
Hog-trap	B. W. Duncan	380,649	Apr. 3	511	143	43	104
Hog-trap	J. H. Gentry	383,218	May 22	2001	524	43	926
Hog-trap	J. Henderson	387,301	Aug. 7	158	42	44	601
Hog-trap	S. Loffer	376,368	Jan. 10	931	244	42	187
Hog-trough	S. Corderman	378,434	Feb. 28	1642	432	42	858
Hogs. Portable apparatus for scalding	D. S. Amstutz	392,773	Nov. 13	889	227	45	772
Hoist. Slaughter-house	J. H. Tardy	385,969	July 10	934	248	44	191
Hoisting and conveying apparatus.	G. F. Hammond	386,430	July 17	1618	425	44	334
Hoisting and conveying apparatus.	B. J. Pleasance and P. A. Patterson	391,423	Oct. 23	1743	466	45	357
Hoisting and conveying machine.	A. E. Brown	390,560	Oct. 2	513	135	45	103
Hoisting and conveying machine.	M. W. Locke	377,947	Feb. 14	922	238 239	42	687
Hoisting and conveying machines. Sheave-block for.	A. E. Brown	390,341	Oct. 2	198	53	45	42
Hoisting and loading machine	D. S. White	377,183	Jan. 31	2106	555 556	42	435
Hoisting and moving earth. Apparatus for	J. Ryan	385,527	July 3	295	76	44	60
Hoisting and traversing apparatus.	N. C. Harris	393,643	Nov. 27	2161	566	45	1041
Hoisting apparatus	F. M. Davis	394,314	Dec. 11	912	240	45	1256
Hoisting apparatus	G. H. Hulet	376,655	Jan. 17	1336	351	42	270
Hoisting apparatus	F. P. Mills	376,672	Jan. 17	1359	357 358	42	274
Hoisting apparatus.	M. S. Ragsdale	377,465	Feb. 7	178	42	42	530
Hoisting apparatus	B. F. Shepherd	392,571	Nov. 6	575	145	45	705
Hoisting-bucket	G. W. Rawson	394,297	Dec. 11	838	222	45	1240
Hoisting device	G. L. McDaniel	392,621	Nov. 13	663	165	45	728
Hoisting-drums. Bed-plate and bearing for	E. McLane	392,815	Nov. 13	950	243	45	784
Hoisting-gear	D. L. Brown	389,052	Sept. 4	353	93	41	1140
Hoisting heavy weights. Machine for.	M. V. B. Davis	387,626	Aug. 14	658	170	44	705
Hoisting-jack	W. N. Bell	383,635	May 15	1724	449	43	862
Hoisting-machine	N. B. B. Long and P. A. Atchley	387,687	Aug. 14	748	191	44	722
Hoisting-machine	F. H. A. Peters	382,436	May 8	835	214	43	678
Hoisting-machine	A. and J. Robertson	392,758	Nov. 13	857	220	45	766
Hoisting-machine	P. Vonhof	391,440	Oct. 23	1768	472	45	362
Hoisting-machines. Overloading and slack cable-stop for electrical	W. Baxter, Jr.	394,952	Dec. 25	1902	492 493	45	1366
Hoisting machinery	R. Schulz	380,637	Apr. 3	490	137	43	100
Hoisting machinery. Unwinding safety device for	N. B. Cushing	377,017	Jan. 31	1879	495	42	389
Hoisting-tackle	C. F. Bath	395,113	Dec. 25	2152	555	45	1515
Hoisting-tackle	J. T. Hamby	385,856	July 10	783	208	44	159
Hoisting-tackle	S. M. Vancleain	381,043	Apr. 10	1123	304	43	227
Hoisting-tackle lock	A. M. Kerr	380,155	Sept. 4	540	136	41	1172
Hoisting wagon-beds. Device for	J. M. Kelso	386,323	July 17	1459	386	44	298
Holdback	D. A. Camp	376,796	Jan. 24	1565	411	42	323
Holdback	W. Corcoran	387,398	Aug. 7	297	76	44	629
Holdback	H. Hansberger	378,505	Feb. 28	1744	460	42	860
Holdback	E. G. Sherwin	394,730	Dec. 18	1518	397	45	1385
Holdback. Vehicle.	G. F. Barnum	391,676	Oct. 23	2083	561	45	429
Holdback. Vehicle.	T. W. Barry	386,179	July 17	1243	331	41	259
Holdback. Vehicle.	I. C. Burgett	389,049	Sept. 4	351	93	41	1139
Holdback. Vehicle.	H. W. Getman	379,157	Mar. 6	423	119	42	1046
Holdback. Vehicle.	C. W. Teetzel	393,797	Dec. 4	89	25	45	1090
Holdback. Vehicle.	J. P. Van Dusen	388,466	Aug. 28	1962	526	44	970
Holdback. Vehicle.	E. Walrath	387,935	Aug. 14	1122	239	44	796

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
<b>Holder:</b>							
See Badge-holder.	Necktie-holder.						
Bag-holder.	Oil-can holder.						
Barrel-holder.	Opera-glass holder.						
Bedclothes-holder.	Order-holder.						
Bill-holder.	Paper-holder.						
Bird-food holder.	Paper and twine holder.						
Bit-holder.	Paper-bag holder.						
Blacking-box holder.	Paper-roll holder.						
Book-holder.	Pen-holder.						
Bottle-stopper holder.	Pen and pencil holder.						
Bouquet-holder.	Pen or pencil holder.						
Broom-holder.	Pencil-holder.						
Brush-holder.	Pencil rubber-holder.						
Candle-holder.	Photograph-holder.						
Car-door holder.	Photographic-plate holder.						
Carbolic smoke-ball holder.	Photographic-tray holder.						
Carriage-curtain-cord holder.	Pillow-sham holder.						
Chalk-line holder.	Pillow-sham and screen holder.						
Chamois-holder.	Pistol-holder.						
Checkrein-holder.	Plate-holder.						
Cigar-holder.	Rein-holder.						
Clapboard-holder.	Ribbon-holder.						
Clothes-line holder.	Roll-holder.						
Coin-holder.	Sample-holder.						
Copy-holder.	Sand-paper holder.						
Corn-holder.	Sash-holder.						
Cuff-holder.	Scaffold-holder.						
Cup-holder.	Scarf-holder.						
Dental holder.	Screw-holder.						
Dentist's disk-holder.	Sewing-machine-attachment holder.						
Dish-holder.	Shade-holder.						
Envelope-holder.	Shaft-holder.						
Eraser-holder.	Signal-holder.						
Eyeglass-holder.	Slate-pencil holder.						
File-holder.	Sleeve-holder.						
File or book holder.	Sponge and slate-pencil holder.						
Fire-cracker holder.	Spool-holder.						
Fishing-rod holder.	Spool, needle, and thimble holder.						
Fly-paper holder.	Stereotype-plate holder.						
Glass-holder.	Stocking and skirt holder.						
Goblet-holder.	Stove-pipe holder.						
Handkerchief-holder.	Stove-pipe and collar holder.						
Harmonica-holder.	Stub-holder.						
Harrow-tooth holder.	Tack or nail holder.						
Hat-label holder.	Tag-holder.						
Hat or bonnet holder.	Thill-holder.						
Hoof-holder.	Thread-holder.						
Horse-tail holder.	Ticket-holder.						
Iron-holder.	Tidy-holder.						
Knife-blade holder.	Time-piece holder.						
Lamp-holder.	Tire-bolt holder.						
Lamp-shade holder.	Tool-holder.						
Lamp shade or globe holder.	Torpedo-holder.						
Lantern-holder.	Trace-holder.						
Lead and rule holder.	Twine-holder.						
Lead or crayon holder.	Type-line holder.						
Line-holder.	Water-melon holder.						
Mail-bag holder.	Weather-board holder.						
Mop and brush holder.	Window-shade-bracket holder.						
Mucilage-holder.	Wire-holder.						
Music-holder.	Wire-cloth holder.						
Music-rack holder.	Yard-stick holder.						
Napkin-holder.							
<b>Honey-box</b>	H. D. Davis	394,160	Dec. 11	621	166	45	1199
Honey-comb foundations.	J. W. Bittenbender	393,739	Dec. 4	5	2,3	45	1074
Honey-frames.	J. Ware	381,549	June 12	1062	277	43	1330
Hoodwink	F. H. Lyman and A. J. Johnson	377,835	Feb. 14	760	194	42	654
Hoof-clasp	D. Cruick and F. Himmel	380,093	Mar. 27	1845	491	42	1343
Hoof-expander	L. Monahan Jr.	383,585	May 29	2553	675	43	1035
Hoof-holder	A. N. Green and J. G. Sutton	391,893	Oct. 30	2108	651	45	503
Hoof-pad	H. L. Hubbard	378,887	Mar. 6	45	12	42	975
Hoof-parer	H. F. Riblett	388,585	Aug. 28	2127	571	44	1002
Hoof-trimmer	H. R. Hage	389,463	Sept. 11	1006	269	44	1271
<b>Hook:</b>							
See Back-band hook.	Harness-hook.						
Bench-hook.	Lever-hook.						
Cant-hook.	Meat-hook.						
Check-hook.	Painter's hook.						
Checkrein-hook.	Painter's combination						
Clothes-hook.	pot-hook.						
Coat-hook.	Pneumatic hook.						
Coat and hat hook.	Sash-lifting hook.						
Draft-hook.	Siding-hook.						
Drapery-hook.	Single-tree hook.						
Fish-hook.	Snap-hook.						
Fishing-hook.	Spoon-hook.						

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Hook—Continued.							
See Suspension-hook. Wardrobe-hook.							
Sweat-pad hook. Whiffletree-hook.							
Tag-hook. Window and picture hook.							
Trolling-spoon hook. Wire hook.							
Tag-hook.							
Hook.....	G. C. Beals.....	380,974	Apr. 10	1019	266	43	206
Hook.....	J. C. Newey.....	393,656	Nov. 27	2181	572	45	1045
Hook.....	A. W. Partridge.....	392,222	Nov. 6	67	17	45	607
Hook.....	C. C. Pierce.....	377,772	Feb. 14	664	166	42	637
Hook.....	A. Sanford.....	387,109	July 31	2630	692	44	542
Hook.....	R. Sanford.....	386,850	July 31	2264	596	44	471
Hook.....	C. H. Thorston.....	389,825	Sept. 18	1549	409	44	1383
Hook and eye and safety-pin. Combined.	E. M. Wright.....	393,319	Nov. 20	1668	440	45	934
Hoop:							
See Barrel-hoop. Tay hoop.							
Mast-hoop. Tub-hoop.							
Hoop.....	J. Leach.....	382,264	May 1	567	143	43	617
Hoop coupling and tightener.	R. C. Pope.....	393,262	Nov. 20	1581	415	45	917
Hoop-cutting machine.	A. F. Ward.....	392,651	Nov. 13	701	176	45	735
Hoop-dressing machine.	J. J. Moger.....	378,454	Feb. 28	1675	439	42	845
Hoop for barrels, pails, or tubs.	G. Souther.....	379,997	Mar. 27	1700	451	42	1315
Hoop for coopers' ware.	J. Leach.....	376,530	Jan. 17	1141	299	42	233
Hoop for frumling.	J. F. Lippard.....	378,327	Feb. 21	1482	387	42	739
Hoop-iron. Machine for bundling.	W. Bansen.....	383,686	May 29	2601	711	43	1065
Hoop-iron. Machine for cutting.	J. W. Cossler.....	391,586	Oct. 23	1966	530	45	404
Hoop-lug.	H. M. Lourie.....	375,825	Jan. 3	134	79	42	31
Hoop-machine.	J. Connell.....	390,207	Oct. 2	17	5, 6	45	6
Hoop machine. Barrel.	E. Olund.....	394,543	Dec. 11	1198	{ 312 313 }	45	1307
Hoop-planing machine.	O. Schimansky.....	390,807	Oct. 9	846	236	45	174
Hoop-polishing machine.	O. Schimansky.....	393,124	Nov. 20	1383	361	45	877
Hoop-sawing machine.	J. W. Blake.....	392,943	Nov. 13	1122	291	45	818
Hoops. Machine for cutting locks in.	J. Hiers.....	391,610	Oct. 23	1994	539	45	410
Hopple.	O. B. Fales.....	382,869	May 15	1469	385	43	812
Hopple.	J. Freeman.....	376,872	Jan. 24	1678	438	42	342
Hopple.	B. Spieth.....	388,737	Aug. 28	2342	631	44	1043
Hopple. Lock.	E. L. White.....	394,609	Dec. 18	1424	371	45	1363
Horn-tip.	H. A. Miller.....	379,077	Mar. 6	314	91	42	1025
Horns of cattle. Machine for softening and bending the.	G. B. French.....	383,519	May 29	2458	651	43	1016
Horse.	W. C. Goo'rich.....	376,876	Jan. 24	1683	440	42	343
Horse-blanket.	A. M. Crooker.....	387,150	July 31	2703	708	44	553
Horse-blanket fastener.	E. E. Dillon.....	377,097	Jan. 31	2004	525	42	413
Horse-hoot.	J. H. Feuton.....	386,630	July 24	1908	504	44	398
Horse-hoot.	O. Glismann.....	393,974	Dec. 4	333	95	45	1139
Horse-hoot.	M. Kinsey.....	381,388	Apr. 17	1640	436	43	335
Horse-hoot.	M. W. Lynch.....	376,038	Jan. 3	437	116	42	88
Horse-hoot.	C. C. P. J., and F. L. Schild.	388,313	Aug. 21	1735	463	44	921
Horse-brushing machine.	C. Alexander.....	394,902	Dec. 18	1819	471	45	1441
Horse-checking device.	D. S. Munger.....	387,176	July 31	2740	718	44	560
Horse-checking device.	D. S. Munger and C. E. Price.	387,175	July 31	2737	718	44	560
Horse-cover. Automatic.	G. C. Hale.....	377,381	Feb. 7	92	7	42	499
Horse-detacher.	A. Ayer.....	389,354	Sept. 11	811	215	44	1241
Horse-detacher.	W. A. Bryant.....	392,946	Nov. 13	1127	293	45	820
Horse-detacher.	N. Crim.....	378,193	Feb. 21	1271	336	42	761
Horse-detacher.	J. W. Cronan.....	394,157	Dec. 11	617	165	45	1199
Horse-detacher.	J. A. Dickson.....	383,447	May 29	2340	621	43	994
Horse-detacher.	P. Geyer.....	386,877	July 31	2301	605	44	478
Horse-detacher.	J. W. Howgate.....	395,144	Dec. 25	2905	{ 566 567 }	45	1523
Horse-detacher.	M. B. Jacoby and H. R. Luyties.	395,235	Dec. 25	2960	604	45	1550
Horse-detacher.	T. Maury and E. Roubinet.	383,742	May 29	2778	732	43	1082
Horse-detacher.	J. McMorris.....	381,712	Apr. 24	2121	554	43	448
Horse-detacher.	W. L. and P. M. Mitzel and J. Q. A. Haney.	384,060	June 5	327	93	43	1183
Horse-detacher.	W. M. Morrison.....	391,381	Oct. 16	1686	446	45	338
Horse-detacher.	G. T. Parker.....	385,132	June 26	1944	497	43	1520
Horse-detacher.	S. A. Pugh.....	376,167	Jan. 10	535	142	42	114
Horse-detacher.	J. K. P. Timmons.....	388,931	Sept. 4	187	50	44	1109
Horse-detacher.	W. B. Walker.....	385,490	July 3	236	61, 62	44	47
Horse-detacher.	T. White.....	379,352	Mar. 13	703	191	42	1105
Horse-detacher.	A. M. Witherington.....	382,291	May 1	471	121	43	600
Horse-detacher and wagon-brake.	J. E. Sanders.....	391,920	Oct. 30	2446	661	45	511
Horse-detaching device.	A. T. Teakles.....	387,664	Aug. 14	707	182	44	715
Horse. Folding.	D. B. Chapman.....	393,210	Nov. 20	1509	395	45	903
Horse-head protector.	H. Zedertit.....	378,858	Feb. 28	2268	603	42	960
Horse-power.	G. E. Bart.....	387,945	Aug. 14	1136	305	44	799
Horse-power.	G. A. Chapman.....	387,191	Aug. 7	429	112	44	657
Horse-power.	R. G. McElroy.....	381,807	Apr. 21	2246	588	43	472
Horse-power.	M. B. Patterson.....	386,026	July 10	1016	270	44	207
Horse-power.	A. Sampson.....	388,586	Aug. 28	2128	{ 571 572 }	44	1002
Horse-power.	C. E. Sutton.....	393,794	Dec. 4	85	21	45	1089
Horse-power.	A. B. Vary.....	385,392	July 3	78	22	44	17
Horse-power machine.	W. H. Williseraft.....	389,623	Sept. 18	1251	327	44	1323
Horse-power sweep.	G. W. Crane.....	383,443	May 29	2334	620	43	993
Horse-rake.	J. Palmer.....	391,484	Oct. 23	1827	489	45	375
Horse-rake fender.	L. Mundy.....	378,103	Feb. 21	1136	297	42	737
Horse-tail holder.	O. H. Muniz.....	385,721	July 10	582	151	44	121
Horse-tail tie.	C. D. Haldeman.....	388,670	Aug. 28	2250	603	44	1024
Horse-tail tie.	O. Hasbrouck, Jr.....	376,151	Jan. 10	609	164	42	128
Horse-tie. Automatic.	R. Hymers.....	376,893	Jan. 24	1577	413	42	324
Horses. Device for assisting in training.	H. C. Woodnutt.....	381,745	Apr. 24	2164	566	43	456

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Horses. Device for checking	F. T. Atkins	381,316	Apr. 17	1529	412	43	314
Horses. Device for checking	T. J. Quinn and D. McLellan	381,580	Apr. 24	1925	507	43	409
Horses. Device for hitching	C. Kauer	382,989	May 15	1636	428	43	844
Horses. Device for hitching	E. H. Turner	392,834	Nov. 13	980	251	45	790
Horses. Device for stopping	A. Wedekind	381,735	Apr. 24	2150	563	43	454
Horses. Hood for	C. A. and J. D. Sullivan	382,668	May 8	1202	312	43	750
Horses. Hoof-hoot for	P. J., F. L., and C. C. Schmid	392,291	Nov. 6	165	43	45	625
Horses. Ice-creeper for	C. S. Acheson	388,171	Aug. 21	1517	404	44	877
Horses. Interfering device for	M. Haughey	379,644	Mar. 20	1150	304	42	1198
Horses. Machine for grooming	W. Dellinger and J. G. McNaughton	392,788	Nov. 13	913	231	45	777
Horses. Split-hoof clamp for	J. H. Wiestner	381,568	Apr. 24	2359	612	43	491
Horses. Throat-protector for	W. O. Mills	378,373	Feb. 21	1545	404	42	813
Horseshoe	J. E. and E. W. Bingham	382,131	May 1	374	97	43	582
Horseshoe	J. E. and E. W. Bingham	383,694	May 29	2702	714	43	1067
Horseshoe	J. B. Finch	378,466	Feb. 14	1056	276	42	713
Horseshoe	I. G. Howell	380,800	Apr. 10	749	205	43	157
Horseshoe	H. Jonas and C. Hirsch	332,040	May 1	249	64	43	553
Horseshoe	C. J. Jutson and F. A. Poupard	393,835	Dec. 4	147	49	45	1100
Horseshoe	C. Miller	388,213	Aug. 21	1576	420	44	889
Horseshoe	M. Payue	394,388	Dec. 11	975	257	45	1268
Horseshoe attachment	S. L. Madden	392,279	Nov. 6	150	38	45	622
Horseshoe-blank	P. F. Greenwood	379,779	Mar. 20	1448	359	42	1238
Horseshoe-blanks. Machine for finishing bent and creased	W. Eynon and J. T. Davis	379,945	Mar. 27	1625	432	42	1300
Horseshoe-blanks. Rolls for punching and creasing	E. Firth and J. Cornthwaite	392,505	Nov. 6	482	121	45	686
Horseshoe-calk	S. Stone	380,362	Apr. 3	88	27	43	20
Horseshoe-machine	J. A. Burden	391,778	Oct. 30	2232	602	45	467
Horseshoe-machine	J. A. Burden	391,779	Oct. 30	2232	603	45	468
Horseshoe-machine	Z. V. Purdy	378,111	Feb. 21	1149	300	42	739
Horseshoe-making machine	E. Firth and J. Cornthwaite	392,322	Nov. 6	206	54, 55	45	633
Horseshoe-nail	A. R. Muterspaugh	378,935	Mar. 6	108	31	42	987
Horseshoe-nail-finishing machine	J. P. Wennersten	391,102	Oct. 16	1304	348	45	266
Horseshoe-nail machine	S. Hansen	382,646	May 8	1163	301	43	742
Horseshoe-nails. Cutting	H. A. Wills	382,927	May 15	1546	405	43	898
Horseshoe-nails. Machine for making	H. A. Wills	382,928	May 15	1549	406	43	829
Horseshoe-pad	J. J. Slevin	391,092	Oct. 16	1290	344	45	264
Horseshoe-pliers	S. J. Hurley	382,263	May 1	566	143	43	617
Horseshoes. Machine for forming	C. L. Haight	379,696	Mar. 20	1227	326	42	1213
Horseshoes. Machine for making	A. M. Sweder	386,904	July 31	2342	615	44	486
Horseshoes. Manufacture of	C. J. Le Roy	392,276	Nov. 6	144	36	45	621
Horseshoes. Toe-weight for	S. M. Dorman	386,388	July 17	1544	409	44	315
Horseshoeing-rack	S. M. Martin	388,569	Aug. 28	2103	564	44	997
Hose and faucet coupling	T. Mackel	381,562	Apr. 24	1901	501	43	405
Hose and pipe supporter. Adjustable garden	C. Booz	381,107	Apr. 17	1243	334	43	258
Hose-bridge	C. J. P. Heim	386,008	July 10	990	264	44	202
Hose-bridge	H. Tucker and P. J. Keegan	390,920	Oct. 9	1610	266	45	204
Hose bridge. Fire	B. E. Henriksen	380,036	Mar. 27	1762	472	42	1326
Hose carriage	M. P. Coleman	394,556	Dec. 18	1226	320	45	1327
Hose carriage. Garden	J. J. Divekey	381,540	Apr. 24	1876	495	43	400
Hose-clamp	F. Schimper	382,557	May 8	1033	263	43	717
Hose-clamp	E. L. Sharpneck	393,400	Nov. 27	1786	472	45	966
Hose. Clamping-collar for attaching	C. Hecox	386,882	July 31	2308	607	44	480
Hose-connection	M. W. Welb	388,748	Aug. 28	2357	635	44	1046
Hose-coupler. Automatic	O. B. Grant	391,789	Oct. 30	2246	611	45	470
Hose-coupling	F. Atherton and M. T. Bentley	378,566	Feb. 28	1832	483	42	877
Hose-coupling	C. W. Boluss	379,845	Mar. 20	1463	387	42	1259
Hose-coupling	P. Gleich and H. S. Krause	387,226	Aug. 7	41	9	44	580
Hose-coupling	F. A. Jacob	377,075	Jan. 31	1962	515	42	405
Hose-coupling	C. Kiefer	383,360	May 22	2202	582	43	963
Hose-coupling	J. P. McElroy	392,355	Nov. 6	264	68	45	644
Hose-coupling	J. Miller	387,899	Aug. 14	1056	278	44	782
Hose-coupling	H. A. Wahlert	383,160	May 22	1917	501	43	909
Hose couplings. Self-locking automatic device for opening and closing valves to air-brake	J. H. Porter and E. A. Grosvenor	385,959	July 10	924	244	44	189
Hose. Elastic	E. Tivey	394,227	Dec. 11	728	193	45	1219
Hose. Joint and nozzle for	S. Sharples, Jr	395,000	Dec. 25	1994	514	45	1453
Hose. Machine for washing fire	G. Villeneuve	391,393	Oct. 16	1702	450	45	341
Hose. Metallic	J. E. Emerson and T. Midgley	380,307	July 17	1440	380	44	294
Hose-nozzle	A. Hallowell	378,308	Feb. 21	1454	380	42	794
Hose-nozzle	J. H. Johnson	385,757	July 10	643	166	44	133
Hose-nozzle	M. O. Kupferle	381,500	Apr. 17	1815	480	43	370
Hose-nozzle	I. W. McGaffey	382,099	May 1	336	88	43	575
Hose-nozzle	E. R. Tomlinson	384,159	Aug. 21	1502	400	44	874
Hose-nozzle supporter	O. P. Prescott	388,788	Aug. 28	2420	653	44	1057
Hose or pipe coupling	T. Haley	382,468	May 8	895	228	43	688
Hose or tubing	J. E. Emerson and T. Midgley	386,304	July 17	1436	379	44	294
Hose or tubing. Manufacture of	J. E. Emerson and T. Midgley	386,306	July 17	1439	380	44	294
Hose-reel	J. H. Bacon	376,572	Jan. 17	1195	316	42	244
Hose-reel	I. W. McGaffey	380,127	Mar. 27	1894	504	42	1352
Hose. Rubber	J. Crampton	377,801	Feb. 14	715	181	42	646
Hose. Rubber	T. S. Judson	375,877	Jan. 3	201	55	42	43
Hose-thimble for the walls of buildings	L. F. Stevens	389,025	Sept. 4	321	84, 85	44	1133
Hose. Tool for applying couplings to	C. Callahan	389,441	Sept. 11	978	262	44	1267
Hose. Tool for applying couplings to	E. E. Sibley and C. Allen	382,776	May 15	1349	355	43	787
Hose-winding apparatus	J. Murphy	391,908	Oct. 30	2431	657	45	508
Hose-winding machine	M. Mason and G. T. Carter	391,169	Oct. 16	1394	271	45	283
Hot-air and hot-water heater. Combined	D. S. Richardson	390,098	Sept. 25	1976	526	44	1475

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Hot-air and ventilating register.	F. M. Stevens.	386,223	July 17	1332	350	44	273
Hot-air and water heater. Combined.	M. Mahony.	387,309	Aug. 7	108	41	41	603
Hot-air engine.	J. L. Bair.	389,045	Sept. 4	346	91	44	1138
Hot-air engine.	T. J. Rider.	393,663	Nov. 27	2191	571	45	1047
Hot-air engine.	T. J. Rider.	393,723	Nov. 27	2273	596	45	1063
Hot-air engine or aerothermic motor.	L. Genty.	387,063	July 31	2563	{ 674 675 }	41	530
Hot-air feeder.	N. B. Clark and P. B. King.	386,527	July 24	1775	469	44	371
Hot-air furnace.	C. N. Bacon.	381,750	Apr. 24	2169	508	43	457
Hot-air furnace.	H. Callahan.	383,100	May 22	1845	481	43	892
Hot-air furnace.	R. A. Chesebrough.	376,812	Jan. 24	1590	417	42	327
Hot-air furnace.	H. R. Gillingham.	394,355	Dec. 11	929	241	45	1259
Hot-air furnace.	E. Kanaley.	377,561	Feb. 7	347	81	42	556
Hot-air furnace.	W. Miller.	378,101	Feb. 21	1132	296	42	736
Hot-air furnace.	W. Morrison.	376,390	Jan. 10	933	{ 214 215 }	42	187
Hot-air furnace.	J. B. Oldershaw.	381,574	Apr. 24	1919	506	43	408
Hot-air furnace.	G. D. Sanford.	384,789	June 19	1414	371	43	1408
Hot-air furnace.	P. H. Schenrera.	381,427	Apr. 17	1694	{ 454 455 }	43	317
Hot-air furnace.	C. H. White.	390,107	Sept. 25	1988	529	44	1477
Hot-air furnace.	G. G. Wolfe.	378,061	Feb. 14	1073	{ 281 282 }	42	717
Hot-air register.	J. Springer.	380,145	Mar. 27	1916	511	42	1337
Hot-air register for fire-place heaters.	W. P. Rossman.	381,283	Apr. 17	1483	399	43	304
Hot-air regulator.	A. T. Bemis.	385,992	July 10	973	259	44	199
Hot-water boiler.	E. S. Manny.	382,313	May 8	648	165	43	643
Hot-water boiler.	E. S. Manny.	388,893	Sept. 4	130	35	44	1097
Hot-water boiler.	O. W. Noble.	382,659	May 8	1186	{ 306 307 }	43	747
Hot-water boiler.	O. W. Noble.	382,660	May 8	1188	{ 307 308 }	43	747
Hot-water heater.	J. M. Thayer.	378,633	Feb. 28	1923	509	42	896
Hotel-indicator.	C. M. Benninghaus.	380,166	Mar. 27	1942	518	42	1362
Hotel-indicator.	R. R. Garreau.	393,894	Dec. 4	239	64	45	1118
House.							
See Drying-house.	Portable house.						
Feed-house.							
House. Dwelling.	C. P. Baldwin.	392,093	Oct. 30	2717	738	45	564
House interiors. Finishing of.	W. J. Boda.	385,233	June 26	2088	{ 535 536 }	43	1550
House. Portable.	A. Lindblad.	388,424	Aug. 28	1902	508	44	958
House. Portable.	D. Welburn.	391,442	Oct. 23	1770	473	45	362
Houses. Adjustable folding curtain-partition for.	C. S. Langworthy.	385,813	July 10	716	187	44	147
Houses. Apparatus for moving.	F. B. Duffey.	387,630	Aug. 14	662	172	44	706
Houses. Construction of.	J. S. Miller.	392,025	Nov. 13	667	166	45	729
Houses. Portable cooling apparatus for.	R. F. Huniston.	387,954	Aug. 14	1154	312	44	802
Hub.	W. H. Elmer.	387,557	Aug. 7	549	142	44	678
Hub.	J. A. Schuler.	386,167	July 17	1225	327	44	255
Hub-attaching device.	E. K. Emig.	390,465	Oct. 2	380	97	45	78
Hub-attaching device.	A. P. Olmstead.	394,876	Dec. 18	1770	459	45	1433
Hub-attaching device.	E. Partridge.	385,641	July 3	466	121	44	91
Hub-boring machine.	W. H. Barnhart.	383,848	June 5	2	1	43	1121
Hub-boring machine.	J. Bieber.	376,063	Jan. 10	473	{ 127 128 }	42	102
Hub-boring machine.	F. B. Deming.	387,773	Aug. 14	866	{ 223 224 }	44	745
Hub-boring machine.	A. Woelher.	387,550	Aug. 7	533	139	44	675
Hub for vehicle-wheels.	E. G. Moulton.	390,613	Oct. 2	573	152	45	115
Hub. Self-lubricating vehicle.	J. V. Hawkey.	376,152	Jan. 10	610	164	42	128
Hub. Vehicle.	G. S. Elliott.	377,295	Jan. 31	2281	603	42	467
Hub. Vehicle.	T. O'Brien.	389,101	Sept. 4	410	115	44	1155
Hub. Vehicle.	M. E. True.	381,891	Apr. 24	2393	622	43	500
Hub. Vehicle-wheel.	C. E. Hunt.	392,123	Oct. 30	2763	750	45	573
Hub. Wheel.	W. J. Brewer.	377,187	Jan. 31	2111	557	42	436
Hub. Wheel.	C. A. Kinney.	378,842	Feb. 28	2242	598	42	956
Hub. Wheel.	E. Perkins.	391,642	Oct. 23	2038	551	45	420
Hubs. Sand-band for wheel.	A. Wright.	388,237	Aug. 21	1606	429	44	896
Huller.							
See Clover-huller.							
Husking-pin.	H. H. Perkins.	380,516	Apr. 3	323	92	43	66
Husks, &c. Machine for picking.	F. Cohen.	377,095	Jan. 31	2001	524	42	412
Hydrant.	P. W. Bailey.	388,010	Aug. 21	1237	336	44	827
Hydrant.	C. G. Elto.	382,642	May 8	1158	298	43	741
Hydrant.	C. G. Elto.	382,960	May 15	1526	417	43	837
Hydrant.	C. G. Elto.	394,478	Dec. 11	1097	284	45	1289
Hydrant.	E. Hand.	377,357	Jan. 31	2376	686	42	483
Hydrant.	J. B. Hawkins.	387,590	Aug. 7	604	157	44	687
Hydrant.	R. Hughes.	394,652	Dec. 18	1390	363	45	1357
Hydrant.	A. J. Tyler.	386,095	July 10	1122	299	44	227
Hydrant.	A. J. Tyler.	388,798	Aug. 28	2433	657	44	1060
Hydrant.	A. J. Tyler.	389,176	Sept. 4	573	115	44	1178
Hydrant.	P. White.	394,529	Dec. 11	1177	306	45	1303
Hydrant. Fire.	D. W. Carroll.	382,951	May 15	1584	{ 413 414 }	43	835
Hydrant. Irrigating.	W. Laey, Jr.	391,475	Oct. 23	1819	486	45	373
Hydraulic elevator.	J. Cone.	376,859	Jan. 21	1661	434	42	339
Hydraulic elevator.	W. T. Fox.	381,436	June 12	888	{ 231 232 }	43	1298
Hydraulic elevator.	L. S. and F. B. Graves.	379,513	Mar. 13	951	257	42	1153
Hydraulic elevator.	E. Hunt.	388,683	Aug. 28	2268	{ 608 609 }	44	1028
Hydraulic elevator.	W. H. Marsh.	383,232	May 22	2021	530	43	930

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Hydraulic elevator.....	W. O'Keefe.....	384,864	June 19	1535	{ 399 400	{ 43	1429
Hydraulic-elevator mechanism.....	E. B. Benham.....	380,851	Apr. 10	820	223	43	170
Hydraulic lift.....	T. P. Ford.....	387,407	Aug. 7	306	79	44	631
Hydraulic motor.....	N. E. Harris.....	390,077	Sept. 25	1949	{ 517 518	{ 44	1469
Hydraulic motor.....	G. W. Mason.....	378,701	Feb. 28	2025	535	42	915
Hydraulic motor.....	J. E. Mick.....	391,809	Oct. 30	2286	621	45	479
Hydraulic motor.....	C. G. Otis.....	377,636	Feb. 7	429	109	42	576
Hydraulic motor.....	A. W. Tourgée.....	395,092	Dec. 25	2106	{ 545 546	{ 45	1507
Hydraulic or other elevator.....	W. P. Gibson.....	378,674	Feb. 28	1989	526	42	908
Hydraulic press.....	L. Miller.....	394,383	Dec. 11	967	{ 254 255	{ 45	1266
Hydraulic press.....	H. Von Mitzlaff.....	394,527	Dec. 11	1171	{ 304 305	{ 45	1302
Hydraulic shaping-press.....	A. E. Hobson. (Reissue).....	10,934	May 29	2953	782	43	1114
Hydraulic step.....	F. G. Hesse.....	385,460	July 3	190	50	44	38
Hydraulic transit.....	J. E. Robinson.....	393,585	Nov. 27	2067	541	45	1023
Hydraulic transit apparatus.....	J. E. Robinson.....	393,584	Nov. 27	2065	541	45	1022
Hydraulic transit apparatus.....	J. E. Robinson.....	393,586	Nov. 27	2068	541	45	1023
Hydrocarbon-burner.....	C. Cole and J. S. Pihlström.....	387,053	July 31	2546	669	44	527
Hydrocarbon-burner.....	H. L. Howse.....	378,590	Feb. 28	1866	{ 492 493	{ 42	885
Hydrocarbon-burner.....	C. S. Jarboe and J. McHale.....	383,888	June 5	58	18	43	1132
Hydrocarbon-burner.....	S. McMurry.....	388,988	Sept. 4	264	70	44	1123
Hydrocarbon-burner.....	J. E. Patterson and A. Noteman.....	384,067	June 5	337	95	43	1185
Hydrocarbon-burner.....	J. Reid.....	388,718	Aug. 28	2318	624	44	1038
Hydrocarbon-burner.....	J. F. Seery.....	379,291	Mar. 13	622	170	42	1089
Hydrocarbon-burner.....	L. Stevens.....	394,517	Dec. 11	1154	300	45	1299
Hydrocarbon-furnace.....	J. S. Andrews.....	393,415	Nov. 27	1811	478	45	970
Hydrocarbon-furnace.....	C. H. Land.....	376,003	Jan. 3	382	{ 101 102	{ 42	77
Hydrocarbon-furnace.....	B. A. Moody.....	387,799	Aug. 14	901	{ 233 234	{ 44	752
Hydrocarbon-furnace.....	J. Patten.....	392,285	Nov. 6	158	41	45	623
Hydrocarbon-furnace.....	W. B. Smith.....	378,852	Feb. 28	2260	601	42	959
Hydrocarbon generator and burner.....	J. B. Deeds.....	377,019	Jan. 31	1882	495	42	399
Hydrocarbon-motor.....	O. Brünler and E. Capitaine.....	394,953	Dec. 25	1905	493	45	1467
Hydrocarbon vaporizer and burner.....	F. B. Meyers.....	386,258	July 17	1376	{ 362 363	{ 44	282
Hydrocarbons. Device for vaporizing and burning vaporized liquid.....	W. H. Holmes.....	392,031	Oct. 30	2606	709	45	542
Hydrodynamic forces. Mechanism for utilizing and controlling.....	W. M. Jackson.....	383,887	June 5	55	18	43	1131
Hydrogen. Making.....	W. Majert and G. Richter.....	380,726	Apr. 10	635	175	43	136
Hydrogen sulphide. Obtaining.....	E. W. Parnell and J. Stimpson.....	394,387	Dec. 11	974	.....	45	1258
Hydrostatic sight-feed lubricator.....	F. C. and R. S. Prindle.....	389,528	Sept. 11	1093	290	44	1287
Hyposulphite solutions used in leaching ores. Purifying.....	R. D. Clark.....	387,339	Aug. 7	208	.....	44	611
I-beams, channel-bars, &c. Machine for cutting.....	C. M. Carnahan.....	392,662	Nov. 13	716	181	45	737
Ice. Apparatus for the production of transparent.....	H. J. West.....	381,195	Apr. 17	1359	363	43	280
Ice-cream freezer.....	H. C. Condon.....	390,002	Sept. 25	1826	484	44	1444
Ice-cream freezer.....	J. M. Dawley.....	386,112	July 17	1149	305	44	239
Ice-cream freezer.....	C. Spornhauer.....	388,925	Sept. 4	176	47	44	1166
Ice-creeper.....	J. T. Harker.....	390,594	Oct. 2	554	146	45	112
Ice-creeper.....	C. J. Lung.....	382,432	May 8	831	213	43	678
Ice-creeper.....	W. W. and E. F. Prestou.....	380,816	Apr. 10	769	210	43	161
Ice-creeper.....	W. Sage.....	377,440	Feb. 7	142	32	42	521
Ice-creeper.....	C. Schummel.....	376,532	Jan. 24	1622	424	42	332
Ice-creeper and skate. Convertible.....	R. C. Abbott.....	377,131	Jan. 31	2044	535	42	421
Ice-cutter.....	D. Williamson.....	395,100	Dec. 25	2126	549	45	1510
Ice-cutting machine.....	S. W. Baker and P. Fritch.....	393,007	Dec. 4	101	29	45	1092
Ice-cutting machine.....	L. C. Hartung and W. A. Haussner.....	390,365	Oct. 2	237	63, 64	45	50
Ice-cutting machine.....	L. Smith.....	389,416	Sept. 11	939	246	44	1259
Ice-dog.....	T. S. Hitchcock.....	3-2,261	May 1	563	142	43	617
Ice-elevator.....	J. Hall.....	392,203	Nov. 6	37	10	45	601
Ice-harvesting machine.....	W. L. Smith.....	391,205	Oct. 16	1440	{ 385 386	{ 45	293
Ice-machines. Absorber for.....	T. H. Butler.....	377,189	Jan. 31	2112	558	42	436
Ice-machines. Automatic can-filler for.....	F. V. De Coppet.....	375,926	Jan. 3	268	72	42	56
Ice-machines. Compression-pump for.....	A. H. Hutchinson.....	387,234	Aug. 7	52	12	44	581
Ice-machines. Gas-compressing pump for.....	T. Farnsworth.....	395,044	Dec. 25	2038	526	45	1492
Ice-making and refrigerating. Apparatus for.....	J. B. Craft.....	376,732	Jan. 24	1455	{ 383 384	{ 42	302
Ice-marker.....	J. B. Fischer.....	394,917	Dec. 18	1854	479	45	1447
Ice or refrigerating machine.....	J. E. Siebel.....	388,592	Aug. 28	2136	573	44	1094
Ice or refrigerating machine.....	F. W. Wolf.....	385,157	June 26	1977	506	43	1527
Ice-pick. Rotary.....	W. Tunstill.....	390,998	Oct. 9	1132	299	45	227
Ice-roads. Device for making.....	D. J. Arpin.....	381,051	Apr. 10	1139	{ 304 305	{ 43	229
Ice-runs. Switch for.....	J. Reis.....	381,419	Apr. 17	1681	{ 450 451	{ 43	345
Ice-shaver.....	F. K. Way.....	383,928	June 5	132	38	43	1146
Ice-shaver.....	F. K. Way.....	384,299	June 12	687	183	43	1262
Ice-shaver.....	J. C. Wharton.....	377,365	Jan. 31	2388	690	42	485
Ice-shaving machine.....	R. H. and D. L. Bates.....	380,844	Apr. 10	809	220	43	168
Ice-shaving machine.....	C. C. Clawson.....	387,661	Aug. 14	992	259	44	770
Ice-shaving machine.....	H. T. Clawson.....	391,452	Oct. 23	1787	477	45	366
Ice-shaving machine.....	F. K. Way.....	393,195	Nov. 20	1486	388	45	898
Identifying device.....	E. R. Fitch.....	385,106	June 26	1905	485	41	1512
Igniting apparatus. Electric.....	L. Hen and R. Weinmann.....	3-2,231	May 1	516	132	43	608
Illuminator, heater, and blow-pipe. Combined.....	J. S. Thompson.....	389,264	Sept. 11	712	181	44	1215
Image.....	C. I. D. Looft.....	390,379	Oct. 2	257	69	45	55



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Implement. Combination	W. S. Ross	381,592	June 12	1123	297	43	1341
Incandescent	E. Moreau	392,163	Oct. 30	2823	765	45	584
Incandescent devices. Compound for making	C. A. Von Welsbach	377,698	Feb. 7	524	135	42	594
Incandescent devices. Compound for making	C. A. Von Welsbach	377,699	Feb. 7	526	135	42	594
Incandescent devices. Compound for making	C. A. Von Welsbach	377,700	Feb. 7	527	135	42	594
Inclined planes. Appliance for operating	F. C. Keighley	382,613	May 8	1118	287	43	733
Incrustation. Electrical apparatus for the prevention of	M. Kotyra	392,736	Nov. 13	826	209	45	760
Incrustation-preventive	D. H. Cameron	388,759	Aug. 28	2376	.....	44	1049
Incrustation-preventive	J. and B. F. Mullica	380,340	Apr. 3	48	.....	43	12
Incubator	W. H. Hillier	382,527	May 8	982	{ 247 248 }	43	705
Incubator	J. L. Nix	386,155	July 17	1211	323	41	252
Incubator	W. P. Shepard	387,742	Aug. 14	827	214	44	737
Incubators. Heat-regulator for	C. E. Bean	382,403	May 8	790	200	43	669
Incubators. Heat-regulator for	J. F. Carr	394,657	Dec. 4	475	127	45	1162
Incubators. Heat-regulator for	W. P. Shepard	394,886	Dec. 18	1788	464	45	1436
Incubators. Temperature-regulator for	C. A. Cornman	378,435	Feb. 28	1643	432	42	839
Incubators. Temperature-regulator for	J. W. Hile	383,732	May 29	2765	{ 728 729 }	42	1079
Incubators. Temperature-regulator for	G. E. Talbot	382,779	May 15	1352	356	43	788
Index	P. L. Miller	379,320	Mar. 13	665	179	42	1097
Index-machine	G. Srites	391,345	Oct. 16	1632	432	45	328
Indicating and calculating machine	P. Yoe	388,518	Aug. 28	927	{ 545 546 }	44	983
Indicator:							
See Boiler-feed indicator.	Overflow-indicator.						
Burglar-alarm indicator.	Poison-bottle indicator.						
Cash-indicator.	Pressure-indicator.						
Date-indicator.	Railway station-indicator.						
Directory-indicator.	Railway-train indicator.						
Electric indicator.	Shoal-water indicator.						
Electric-circuit indicator.	Speed-indicator.						
Electric-current indicator.	Station-indicator.						
Electrical indicator.	Station and street indicator.						
Elevator-indicator.	Steam-boiler indicator.						
Hotel-indicator.	Steam-engine indicator.						
Liquid-level indicator.	Street and station indicator.						
Load-indicator.	Street or station indicator.						
Low-water-indicator.	Train time and speed indicator.						
Mail-indicator.	Type setting and distributing indicator.						
Musical indicator.	Water-gage indicator.						
Oil-tank indicator.							
Office indicator.							
Indicator	T. J. Bartlett	381,460	Apr. 17	1749	468	43	356
Indicator for doors	J. D. Vail	391,215	Oct. 16	1457	388	45	296
Induction-coil	E. E. Ries	380,138	Mar. 27	1907	509	42	1355
Induction-coil. Coin-operated	C. Durieux	393,624	Nov. 27	2137	558	45	1031
Induction-coil. Coin-operated	C. Durieux	393,625	Nov. 27	2139	559	45	1031
Induction-coil. Coin-operated	J. W. Hazell	385,927	July 10	886	235	44	181
Induction-coil. Coin-operated	P. G. Williams and A. W. Roovers. (Reissue.)	10,949	July 24	2150	{ 564 565 }	44	443
Induction-coil. Coin-operated	P. G. Williams and A. W. Roovers	386,860	July 31	2276	599	44	474
Induction-coil. Repeating	J. A. Barrett	382,856	May 15	1449	381	43	808
Inductive resistance. Adjustable	O. B. Shallenberger	380,945	Apr. 10	967	257	43	197
Inductometer	G. Miot	386,648	July 24	1935	511	44	403
Ingot bars. Apparatus for breaking steel	W. R. Hinsdale	384,846	June 19	1510	393	43	1425
Ingot bars. Apparatus for severing	W. R. Hinsdale	384,847	June 19	1512	394	43	1425
Ingot-forming apparatus	J. Illingworth	382,427	May 8	822	{ 210 211 }	43	675
Ingot-forming apparatus	J. Illingworth	394,695	Dec. 18	1462	382	45	1371
Ingot. Iron or steel	C. A. Marshall	377,316	Jan. 31	2307	670	42	472
Ingot-manipulator	J. Kennedy	386,324	July 17	1460	386	44	298
Ingot-manipulator	O. P. Mason	388,570	Aug. 28	2104	564	44	998
Ingot-mold	C. Kellogg	395,061	Dec. 25	2065	533	45	1499
Ingot-mold	G. F. McLeane and W. M. Faber, Jr	387,174	July 31	2736	718	44	559
Ingot-molds. Feeder for	S. H. Boucher	385,836	July 10	754	197	44	153
Ingot-molds. Feeder for	S. H. Boucher	385,837	July 10	755	198	44	154
Ingot or bar for tools	F. W. Seaman	383,192	May 22	1960	514	43	917
Ingots. Apparatus for forming compressed steel	W. H. Singer	390,810	Oct. 9	852	227	45	175
Ingots. Forming	J. B. D. Boulton	388,336	Aug. 21	1768	472	41	927
Ingots. Making compound	L. I. Burdon	381,527	Apr. 24	1857	491	43	396
Ingots. Plating	W. P. Whiting	385,383	July 10	676	176	44	140
Ingots. Reducing or drawing out steel	W. A. Sparger	392,468	Nov. 6	434	.....	45	676
Inhaler	J. B. Henry	380,720	Apr. 10	627	152	43	134
Inhaler	A. K. Ives	388,202	Aug. 21	1562	415	44	886
Inhaler	J. McGeary	377,571	Feb. 7	327	84	42	558
Inhaler	H. Palmer	384,589	June 12	1119	296	43	1341
Inhaler	C. C. Sharp	382,113	May 1	351	92	43	578
Inhaler	C. E. Warren	393,869	Dec. 4	203	55, 56	45	1110
Inhaler	B. M. Wilkerson	378,033	Feb. 14	1036	271	42	709
Inhaler for chloroform, &c	J. W. Battershall	379,042	Mar. 6	266	77	42	1016
Inhaling apparatus	H. C. P. Stornor	391,564	Oct. 23	1933	521	45	398
Inhaling devices. Snapper for	J. H. Harford and W. W. Reeves	390,175	Oct. 2	392	100	45	81
Inhaling medicinal vapors, &c. Apparatus for	F. H. Glew	376,819	Jan. 24	1601	420	42	328
Initial ring. Interchangeable	O. Thio and C. M. Levy	389,778	Sept. 18	1483	391	44	1369
Injector	W. E. Dodge	383,109	May 22	1850	484	43	896
Injector	W. T. Ewing	376,187	Jan. 10	656	175	42	136
Injector	W. T. Ewing	376,188	Jan. 10	657	176	42	137
Injector	J. R. Goehring	375,810	Jan. 3	117	34	42	28
Injector	S. L. Kneass	376,315	Jan. 10	833	220	42	169

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. is	Vol.	Page.
Injector.....	J. D. Lynde.....	386,408	July 17	1582	418	44	328
Injector.....	W. T. Messinger.....	390,031	Sept. 25	1862	494	44	1451
Injector.....	H. B. Murdock. (Reissue).....	10,971	Dec. 4	604	162	45	1187
Injector.....	C. E. Randall.....	378,403	Feb. 21	1586	417	42	820
Injector.....	R. Ruddy and L. Kaezauder.....	387,599	Aug. 7	619	161	44	691
Injector.....	L. Schutte.....	377,912	Feb. 14	864	222	42	676
Injector.....	E. Waro.....	390,730	Oct. 9	741	194	45	154
Injector.....	E. J. Young, A. Lambert, and H. R. Ferris.....	384,666	June 19	1235	326	43	1372
Injector. Medical.....	A. Mess.....	391,546	Oct. 23	1914	515	45	394
Injector. Steam.....	L. M. Berry.....	378,281	Feb. 21	1417	370	42	787
Injector. Steam.....	J. Desmond.....	392,544	Nov. 6	538	135	45	697
Ink.....	M. C. Leferts and J. H. Stevens.....	380,654	Apr. 3	517		43	105
Ink-mill.....	T. R. Johnston.....	383,576	May 20	2541	671	43	1032
Ink or other fluid stand.....	A. P. Pichereau.....	379,906	Mar. 20	1567	413	42	1278
Ink pot or holder.....	A. Kempson.....	378,595	Feb. 28	1874	495	42	886
Ink. Printing.....	L. Bailey.....	375,720	Jan. 3	1		42	3
Ink-supplying device.....	H. Esser.....	384,899	June 19	1582	412	43	1438
Ink-well.....	E. J. Colby.....	383,514	May 29	2451	650	43	1014
Inkstand.....	R. P. Beatty.....	379,093	Mar. 6	344	98	42	1030
Inkstand.....	M. H. Garland.....	382,698	May 15	1248	326	43	767
Inkstand.....	S. B. Jerome.....	388,564	Aug. 28	2091	562	44	995
Inkstand.....	E. C. Jones.....	392,342	Nov. 6	242	62	45	640
Inkstand.....	F. Mitchell.....	378,208	Feb. 21	1294	342	42	766
Inkstand.....	J. F. K. O'Connor.....	382,894	May 15	1506	394	43	820
Inkstand.....	F. R. Parsons.....	393,026	Nov. 20	1251	324	45	851
Inkstand.....	H. A. Reinhard.....	382,621	May 8	1131	291	43	735
Inkstand.....	J. S. Ross.....	379,247	Mar. 13	558	155	42	1077
Inkstand.....	J. S. Ross.....	379,248	Mar. 13	559	155	42	1077
Inkstand and frame.....	C. Vehrung.....	383,199	May 22	1967	516	43	919
Inkstand and pen-rack. Combined.....	E. A. Bruce and H. J. Campbell.....	387,280	Aug. 7	114	31	44	594
Inkstand. Safety.....	L. B. Prabar.....	376,259	Jan. 10	759	201	42	156
Inkstand. Safety.....	L. B. Prabar.....	376,964	Jan. 24	1798	473	42	366
Inlaying wood.....	H. McHugh.....	390,611	Oct. 2	571	151	45	115
Insect-destroyer.....	A. H. Ingalls.....	381,377	Apr. 17	1623	433	43	332
Insect-destroyer.....	W. Neef.....	394,205	Dec. 11	688	184	45	1211
Insect-destroyer.....	A. J. Owens.....	389,482	Sept. 11	1034	276	44	1276
Insect-destroyer.....	J. T. Rives.....	376,784	Jan. 24	1544	406	42	319
Insect-destroyer.....	T. H. Webb.....	377,127	Jan. 31	2040	534	42	420
Insect-destroyer.....	E. F. Wells.....	395,022	Dec. 25	2009	518	45	1487
Insect-poison distributor.....	B. S. Leathers.....	376,665	Jan. 17	1352	355	42	273
Insect-powder blower.....	E. W. Mersereau.....	388,702	Aug. 28	2299	618	44	1034
Insect-powder distributor.....	C. H. Leggett.....	376,600	Jan. 17	1236	325	42	252
Insect-powder duster.....	R. E. Clark and J. L. Zeigler.....	392,314	Nov. 6	196	51	45	631
Insect-powder gun.....	J. Jaeger.....	378,087	Feb. 28	2008	531	42	912
Insect-screen.....	J. W. Boughton.....	377,987	Feb. 14	973	253	42	697
Insect-screen for windows or doors.....	J. W. Boughton.....	375,863	Jan. 3	181	50	42	40
Insect-trap.....	E. Herrington.....	378,788	Feb. 28	2140	565	42	936
Insect-trap.....	J. D. McMeen.....	393,778	Dec. 4	63	18	45	1084
Insect-trap.....	J. Williams.....	383,788	May 29	2866	753	43	1097
Insects. Destroying.....	A. Clemm.....	380,189	Mar. 27	1974		42	1368
Insects. Fence for intercepting.....	E. C. Kransse.....	392,347	Nov. 6	254	65	45	642
Insecticide.....	F. Feustell.....	378,583	Feb. 28	1859		42	883
Insecticide.....	O. C. Langseth.....	395,065	Dec. 25	2069		45	1500
Insecticide.....	M. Ongerth.....	385,423	July 3	135		44	28
Insecticide.....	H. M. Pollard.....	379,326	Mar. 13	674		42	1099
Insecticide.....	J. T. Simpson.....	388,315	Aug. 21	1739		44	922
Insole.....	C. W. King.....	386,832	July 31	2211	589	41	467
Insole. Spring.....	D. A. Johnson.....	394,188	Dec. 11	664	178	45	1207
Insoles. Machine for turning the channel-tips of.....	S. H. Howland.....	388,280	Aug. 21	1681	449	44	912
Instrument. Combination.....	F. McIntyre.....	378,261	Feb. 21	1385	363	42	781
Insulated conductor.....	C. C. Sibley.....	385,576	July 3	367	95	44	73
Insulated conductors. Manufacturing.....	W. Siemens.....	385,083	Dec. 25	2097		45	1505
Insulated electrical conductor.....	W. A. Phillips.....	390,295	Mar. 27	2113	565	42	1397
Insulated wire.....	H. Splittorf.....	383,919	June 5	110	32	43	1142
Insulated wire.....	J. D. Thomas.....	382,781	May 15	1356	356	43	789
Insulating composition.....	A. Poitevent.....	393,029	Nov. 20	1258		45	853
Insulating electric conductors.....	R. Scheffauer.....	377,118	Jan. 31	2030	531	42	418
Insulating joint.....	J. T. Robb.....	382,272	May 1	577	146	43	620
Insulation of cores of dynamo-electric machines.....	B. Bidwell.....	392,660	Nov. 13	714	180	45	737
Insulator.....	L. M. Neal.....	378,971	Mar. 6	153	41	42	996
Insulator. Electric-wire.....	H. H. Cutler.....	386,111	July 17	1148	305	44	239
Insulator for electrical conductors.....	J. C. Love.....	392,127	Oct. 30	2767	751	45	573
Insulator for electrical wires.....	F. E. Keyes.....	383,734	May 29	2767	729	43	1080
Insulator or bracket support for electric wires.....	T. E. Adams.....	390,741	Oct. 9	756	198	45	157
Insulator-peg. Electric.....	W. E. Joslin.....	386,986	July 31	2461	646	44	510
Insulators. Wire-holder for.....	E. L. Lloyd.....	394,380	Dec. 11	964	233	45	1266
Insurance policy. Complementary accident.....	J. F. Lee.....	389,818	Sept. 18	1539	407	44	1381
Interlocking switch and signal.....	G. D. Fowle.....	389,558	Sept. 18	1149	301	44	1305
Interlocking switch and signal.....	G. Gibbs.....	381,773	Apr. 24	2197	575	43	463
Iron:							
See Corner-iron. Smoothing and polishing iron.....							
Curling-iron. iron.....							
Felly-iron. Soldering-iron.....							
Flat-iron. Tailor's charcoal-iron.....							
Molder's draw-iron. Vehicle chafe-iron.....							
Polishing-iron. Vehicle-gear iron.....							
Sad-iron. Waffle-iron.....							
Shaft-iron. Whiffletree-iron.....							
Singletree-iron.....							
Iron and steel. Apparatus for manufacturing compound plates of.....	A. Wilson.....	380,970	Apr. 10	1010	362	43	205

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Iron and steel with rustless oxide. Coating	A. A. Breneman	387,046	July 31	2538		44	525
Iron and steel with rustless oxide. Coating	W. T. Wells	382,447	May 8	856	{ 218 219	43	682
Iron. Apparatus for cleaning sheet	T. G. Turner	392,082	Oct. 30	2624	{ 731 732	45	557
Iron. Converter for refining molten	I. G. Johnson	384,628	June 19	1183	{ 311 312	43	1361
Iron from its bed. Apparatus for transferring pig-	W. H. Fredericks	380,625	Apr. 3	477	134	43	97
Iron-holder	J. Fischer	377,297	Jan. 31	2283	604	42	467
Iron into malleable iron or steel. Converting crude	G. L. Robert	395,175	Dec. 25	2255	579	45	1532
Iron into steel. Converting cast	J. Hooper and T. Clark	390,969	Oct. 9	1094		45	219
Iron. Manufacture of planished sheet	W. and W. H. Rogers	380,822	Apr. 10	777	213	43	163
Iron. Manufacture of sheet	I. E. Craig	379,370	Mar. 13	736		42	1111
Iron. Manufacture of sheet	I. E. Craig	379,371	Mar. 13	737		42	1111
Iron. Manufacture of sheet	I. E. Craig	382,352	May 8	717		43	655
Iron. Manufacturing oxide of	A. C. Bradley	385,235	June 26	2092	536	43	1551
Iron. Manufacturing wrought	L. D. Chapin	389,545	Sept. 18	1126		44	1301
Iron or steel. Treating	E. D. Wassell	376,421	Jan. 10	983	256	42	195
Iron ore. Treating	G. Conkling	387,554	Aug. 7	541		44	676
Iron ores. Reducing	M. Graff	393,554	Nov. 27	2027		45	1014
Iron ores. Reducing	G. M. Westman	383,201	May 22	1970	{ 517 518	43	920
Iron ores. Treating and calcining	W. J. Taylor	380,229	Mar. 27	2029	542	42	1380
Iron. Pile for the manufacture of sheets of	R. A. Carter	377,729	Feb. 7	563	145	42	601
Iron. Refining	G. Lindenthal	380,442	Apr. 3	198		43	41
Iron with air. Refining	R. P. Wilson	384,813	June 19	1455		43	1415
Ironer. Neckband	A. T. Hagen	386,766	July 24	2015	531	44	417
Ironing-board	S. M. Brown	389,920	Sept. 25	1717	454	44	1422
Ironing-board	G. R. Kidder	393,245	Nov. 20	1558	408	45	913
Ironing-board	J. J. H. Liberth	382,170	May 1	428	112	43	592
Ironing-board	N. N. Morgan	393,339	Nov. 20	1695	448	45	940
Ironing-board and iron-stand. Combined	W. H. H. Marcum	390,686	Oct. 9	680	182	45	143
Ironing-board and wash-bench. Combined	J. E. Roth	380,268	Mar. 27	2078	556	42	1390
Ironing-machine	F. Corbett	390,756	Oct. 9	778	207	45	161
Ironing-machine	J. J. Daley	389,794	Sept. 18	1508	{ 397 398	44	1375
Ironing-machine	G. J. Fritz	388,660	Aug. 28	2234	599	44	1022
Ironing-machine	J. L. Mazoyer	389,971	Sept. 25	1779	{ 472 473	44	1435
Ironing-machine	T. S. Wiles	384,487	June 12	955	{ 248 249	43	1311
Ironing-machine	E. Wilson and J. W. Binder	378,994	Mar. 6	194	53, 54	42	1003
Ironing-table	F. A. Clark	390,754	Oct. 9	776	206	45	160
Ironing-table	N. Dubose	391,303	Oct. 16	1579	418	45	318
Ironing-table	B. M. Harrison	387,299	Aug. 7	156	41, 42	44	601
Ironing-table	C. Ostrander	383,189	May 22	1955	513	43	917
Ironing-table	T. B. Porter	378,553	Feb. 28	1813	478	42	874
Ironing-table	S. H. West	385,892	July 10	844	223	44	172
Ironing-table, wash-bench, and step and extension ladder. Combined	A. Hawkins	393,369	Nov. 27	1745	462	45	957
Ironware. Enamelled	H. C. Milligan	386,023	July 10	1011		44	206
Irrigating purposes. Machinery for	B. D. Owen	390,136	Sept. 25	2028	540	44	1485
Irrigation. System of	A. S. Haines	379,392	Mar. 13	764	207	42	1117
Jack:							
See Hoisting-jack.	Screw-jack.						
Lasting-jack.	Shoe-jack.						
Lifting-jack.	Smoke-jack.						
Lifting and lowering jack.	Telescopic-jack.						
Pegging jack.	Vehicle-jack.						
Wagon-jack.							
Jack	L. O. Lander	391,165	Oct. 16	1388	370	45	282
Jack and clamp. Combined	T. A. Kirkland	391,801	Oct. 30	2277	617	45	477
Jack-spool	L. N. Parks	378,174	Feb. 21	1246	328	42	756
Jacketed can	O. G. Bick	379,757	Mar. 20	1312	350	42	1231
Jacketed can	F. J. Sovereign	386,439	July 17	1630	429	44	337
Jacquard machines. Wire-kift needle for	W. Waffie	394,800	Dec. 18	1645	430	45	1410
Jail. Rotary	P. J. Pauly, Sr., and J. J. Ligon	390,093	Sept. 25	1970	524	44	1474
Jamb. Adjustable	B. F. Cahill	381,329	Apr. 17	1545	417	43	317
Japanning-machine	I. G. Hooper	385,933	July 10	897	{ 238 239	44	184
Jar:							
See Battery-jar.	Fruit-jar.						
Drilling-jar.	Galvanic-battery jar.						
Jar	G. L. Carrl	381,331	Apr. 17	1548	417	43	318
Jar-caps. Machine for securing linings to	F. W. Perry	387,908	Aug. 14	914	237	44	754
Jar-clamp	F. G. Tallman	384,099	June 5	374	105	43	1192
Jar-fastener	W. Heston	377,676	Feb. 7	490	126	42	588
Jar-fastener	T. B. Howe	378,685	Feb. 28	2006	530	42	911
Jar-fastener	T. B. Howe	387,304	Aug. 7	161	43	44	602
Jar-fastener	T. B. Howe	387,683	Aug. 14	741	190	44	721
Jar-fastener	C. Opperman	375,890	Jan. 3	216	59	42	46
Jar-fastener	J. W. Ramsey	376,043	Jan. 3	443	118	42	89
Jar-fastening	W. H. Clarke	376,369	Jan. 10	907	237	42	182
Jar-fastening	J. M. Keller	377,831	Feb. 14	755	191	42	653
Jar fastening. Fruit	W. Brace	382,212	May 1	487	125	43	603
Jar fastening. Preserve	G. H. Harvey	376,953	Jan. 24	1786	469	42	364
Jar fastening. Preserve	T. G. Otterson	377,687	Feb. 7	509	130	42	591
Jar or bottle for fruit, milk, &c.	G. D. Corey	380,091	Mar. 27	1842	490	42	1342
Jars, &c. Means for hermetically closing	C. H. P. L. De Vilmorin	378,498	Feb. 28	1738	458	42	859
Jaw-trap	T. Donlon	392,415	Nov. 6	353	87	45	661
Jersey-stay	S. Kramer and J. Levy	378,597	Feb. 28	1875	496	42	886
Jewel-setting	N. L. Ripley	390,620	Oct. 2	584	155	45	117
Jewelers' use. Machine for cutting solder for	S. F. Merritt	394,201	Dec. 11	62	183	45	1210
Jewelry	B. D. Traill and J. Rawiszer	394,523	Dec. 11	1165	303	45	1301
Jewelry. Crown-setting for	N. L. Ripley	387,449	Aug. 7	374	97	44	646

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Jewelry. Fastening for .....	J. Long .....	393,993	Dec. 4	377	102	45	1144
Jewelry. Inlaid .....	M. Cziner and R. Brettnier .....	389,446	Sept. 11	984	263 264	44	1268
Jewelry. Manufacture of gold-plated-wire stock for .....	J. S. Palmer .....	383,240	May 22	2031	533	43	932
Jewelry. Pin and attachment for .....	L. Sterne .....	378,908	Mar. 6	66	20	42	979
Jewelry. Plated-wire stock for .....	J. S. Palmer .....	394,603	Dec. 18	1309	343	45	1343
Jewelry. Preparing hollow stock for the manufacture of joint: .....	J. S. Palmer .....	383,238	May 22	2028	532	43	931
See Adjustable joint. Rail-joint.							
Carriage canopy-joint. Railway fish-joint.							
Electric-cable joint. Railway-rail joint.							
Expansion-joint. Rod-joint.							
Fish-plate joint. Sheet-metal joint.							
Gas-conduit joint. Universal joint.							
Insulating-joint. Vehicle-top-prop joint.							
Metal joint. Wire-joint.							
Pipe-joint. Wood-joint.							
Joint-coupling. Metallic flexible .....	T. W. Moran .....	391,329	Oct. 16	1610	426	45	325
Joint for furniture, boxes, or like articles .....	H. L. Beach .....	389,684	Sept. 18	1352	355	44	1342
Joint for tubular frame-work .....	D. Wiggins .....	389,120	Sept. 4	520	147	44	1179
Journal-bearing .....	J. W. Garratt .....	386,808	July 31	2175	574	44	457
Journal-bearing .....	G. L. Griswold .....	390,590	Oct. 2	550	145	45	111
Journal-bearing .....	G. H. Helvey .....	380,035	Mar. 27	1761	472	42	1326
Journal-bearing .....	H. H. Hewitt .....	392,268	Nov. 6	133	33	45	620
Journal-bearing .....	M. Randolph .....	377,049	Jan. 31	1916	504	42	396
Journal-bearing. Anti-friction .....	W. E. Elliott .....	391,234	Oct. 16	1482	394	45	301
Journal bearing. Anti-friction .....	J. W. Hyatt .....	385,266	June 26	2149	547	43	1562
Journal bearing. Anti-friction .....	J. W. Hyatt .....	385,267	June 26	2150	548	43	1562
Journal-bearing. Anti-friction .....	M. J. O'Hara .....	391,184	Oct. 16	1414	378	45	287
Journal-box .....	J. H. Aldrich .....	389,185	Sept. 11	591	151	44	1191
Journal-box .....	W. K. Christie .....	385,503	July 3	256	65	44	52
Journal-box .....	J. E. Johnson .....	392,206	Nov. 6	41	11	45	602
Journal-box .....	T. McGrath .....	390,880	Oct. 9	948	250	45	192
Journal-box .....	J. C. Miller .....	382,893	May 15	1505	394	43	820
Journal-box .....	J. M. Normand .....	383,410	May 22	2286	607	43	976
Journal-box .....	W. S. Sharpneck .....	392,465	Nov. 6	431	108	45	676
Journal-box .....	W. B. Turner .....	385,288	June 26	2184	558	43	1568
Journal-box. Anti-friction .....	T. Tripp .....	377,697	Feb. 7	522	134	42	593
Journal-box. Self-lubricating .....	J. Douglas, Jr. .....	379,531	Mar. 13	971	262	42	1157
Journal-boxes. Apparatus for lining .....	G. W. Topham .....	388,933	Sept. 4	190	50	44	1109
Journal-boxes. Dust-guard for .....	C. G. Stearns .....	395,087	Dec. 25	2101	544	45	1506
Jug .....	G. M. Price .....	379,126	Mar. 6	384	109	42	1038
Jugs, tea-pots, &c. Metal lid for .....	W. Sterer .....	379,184	Mar. 6	450	126 127	42	1052
Justifying apparatus .....	J. Thorne .....	387,546	Aug. 7	527	136 137	44	674
Justifying apparatus .....	J. Thorne .....	388,088	Aug. 21	1359	367	44	850
Jute and other fibrous plants. Machine for stripping .....	W. Menzies .....	394,284	Dec. 11	819	217 218	45	1237
Kegs, barrels, &c. Holder for .....	C. A. Mauker .....	378,968	Mar. 6	149	43	42	995
Kegs, bottles, &c. Tap for .....	J. A. Schofield and J. Brierley .....	385,730	July 10	594	154	44	123
Kettle. Cheese .....	E. A. Biechely .....	391,937	Oct. 30	2473	669	45	316
Kettle. Confectioner's .....	W. and C. L. Cairns .....	377,144	Jan. 31	2057	540	42	424
Key: .....							
See Clock-key. Pulley-key.							
Gas-key. Telegraph-key.							
Loop-key. Tuning-key.							
Ox-bow key. Turn-key.							
Key .....	T. Donahue .....	394,468	Dec. 11	1027	282	45	1287
Key-board for musicians. Exercising .....	A. K. Virgil .....	391,439	Oct. 23	1767	472	45	361
Key-fastener .....	E. Barrett and H. G. Baker .....	382,680	May 15	1222	316	43	762
Key-fastener .....	F. R. De Lisle .....	377,020	Jan. 31	18-3	496	42	390
Key-fastener .....	C. C. Harlow .....	393,302	Nov. 20	1639	432	45	928
Key-hole guard .....	E. Barrett .....	395,259	Dec. 25	2391	612	45	1557
Key-hole guard .....	J. P. Dandurand .....	391,693	Oct. 23	2103	570	45	433
Key-hole guard .....	T. W. Dawes .....	390,158	Sept. 25	2063	550	44	1493
Key-hole guard .....	C. R. Uhlmann .....	382,122	May 1	363	95	43	580
Key-ring. Register .....	W. Scott .....	376,453	Jan. 17	1036	271	42	213
Key-seat cutter. Portable .....	M. Morton .....	390,306	Oct. 2	143	41	45	32
Key-seat-cutting machine .....	R. A. Palmer and J. E. Palchthorp .....	389,243	Sept. 11	688	174 175	44	1210
Key-seats. Machine for cutting .....	G. Benson .....	388,946	Sept. 4	211	56	44	1112
Keys. Manufacture of door- .....	H. B. Sargent .....	383,012	May 15	1688	439	43	854
Kiln: .....							
See Brick-kiln. Malt-kiln.							
Cement-drying kiln. Porcelain-kiln.							
China-kiln. Pottery-kiln.							
Limekiln. Wood-drying kiln.							
Kiln for burning decorated china .....	C. H. Land .....	394,581	Dec. 18	1277	334	45	1337
Kiln for burning hydraulic cement .....	C. R. Gostling .....	381,905	June 19	1589	414	43	1-39
Kiln or furnace for burning garbage .....	J. Hoskin, J. K. Caldwell, and H. D. Hughes .....	391,614	Oct. 23	1999	340 341	45	411
Kilns. Ventilating-grate for open-air .....	C. M. Snyder .....	385,581	July 3	373	97	44	74
Kindling-package .....	C. C. Macbair .....	390,610	Oct. 2	570	151	45	115
King-bolt for vehicles .....	D. D. Whitney .....	376,618	Jan. 17	1275	333	42	259
Kitchen-cabinet .....	F. E. Foster .....	393,304	Nov. 20	1638	432	45	928
Kitchen-cabinet .....	F. C. Pershing .....	394,878	Dec. 18	1772	460	45	1433
Kitchen-cabinet .....	M. H. Shanley .....	393,861	Dec. 4	187	51, 52	45	1107
Kitchen table and cabinet .....	M. S. Brack .....	387,760	Aug. 14	849	219	44	741
Kitchen utensil .....	J. Cudey, Sr. .....	392,107	Oct. 30	2741	745	45	568
Kites. Tail for .....	C. W. Burgess and W. F. Fleharty .....	391,507	Oct. 23	1858	498	45	382
Knapsack .....	H. Blanchard .....	385,657	July 3	485	125	44	94

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Knapsacks, &c. Frame for carrying .....	A. Söhner .....	385,429	July 3	143	38	41	29
Kneading machine. Dough .....	B. H. Melendy .....	381,631	Apr. 24	2003	525	43	425
Knee-shoe .....	H. C. Harris .....	395,228	Dec. 25	2350	602	45	1548
Knife:							
See Chopping-knife. Oyster-knife.							
Corn-removing knife. Paper-knife.							
Cultivator-knife. Planing-machine knife.							
Drawing-knife. Pocket-knife.							
Fruit-knife. Surgical knife.							
Hay-knife. Table-knife.							
Knife .....	M. Cowles .....	382,591	May 8	1088	280	43	727
Knife .....	M. Schweizer .....	377,334	Jan. 31	2338	678	42	476
Knife and batonier. Combined .....	J. C. Parker .....	391,268	Oct. 16	1533	407	45	310
Knife-blade burnisher .....	D. T. Brown .....	381,327	Apr. 17	1543	416	43	317
Knife-blade holder .....	E. H. Gould .....	381,233	Apr. 17	1413	360	43	291
Knife-handles. Machine for making hollow metallic .....	R. Chadwick and G. S. Boutwell .....	378,287	Feb. 21	1428	373	42	789
Knife or fork .....	H. C. Hart .....	386,200	July 17	1266	338	44	263
Knife-sharpener .....	W. E. Gunn .....	385,706	July 10	562	146	44	117
Knife sharpener .....	H. L. Johnson and W. G. Stewart .....	386,544	July 24	1759	475	44	375
Knives and forks. Apparatus for cleaning .....	F. Kleemann .....	392,870	Nov. 13	1024	262	45	800
Knives and forks. Die for straightening .....	E. G. Ost .....	379,597	Mar. 20	1080	287	42	1184
Knit drawers .....	G. D. Munsing .....	391,007	Oct. 9	1153	304	45	231
Knit fabric .....	G. D. Munsing .....	391,005	Oct. 9	1150	304	45	230
Knit fabric .....	L. E. Salisbury .....	385,441	July 3	222	58	44	44
Knit fabrics. Machine for uniting .....	T. S. Smith .....	389,533	Sept. 11	1100	291	44	1289
Knit undershirt, &c. ....	G. D. Munsing .....	391,006	Oct. 9	1152	304	45	231
Knitted caps. Making .....	R. W. Scott .....	379,420	Mar. 13	809	218	42	1126
Knitted fabric .....	C. J. Appleton .....	381,899	May 1	3	1	43	515
Knitted fabric .....	B. L. Stowe .....	393,185	Nov. 20	1464	382	45	894
Knitted fabric .....	W. and R. N. Wrightson .....	393,734	Nov. 27	2289	601	45	1065
Knitted fabric for machine-belling, &c. ....	B. L. Stowe .....	393,188	Nov. 20	1475	345	45	895
Knitted under-garment .....	J. A. Scriven .....	378,465	Feb. 28	1689	443	42	848
Knitting hose-pipe .....	E. E. Sibley .....	386,273	July 17	1396	368	44	286
Knitting-machine .....	D. C. Bellis .....	385,163	June 26	1983	508	43	1528
Knitting-machine .....	S. Henshall .....	386,819	July 31	2212	582	44	462
Knitting-machine .....	S. Henshall .....	386,821	July 31	2217	581	44	463
Knitting-machine .....	B. B. Lamprey and A. C. Bugbee .....	383,817	May 29	2913	769	43	1106
Knitting-machine .....	N. W. Pierce .....	388,786	Aug. 28	2416	652	44	1057
Knitting-machine .....	J. Schmitt .....	391,084	Oct. 16	1276	339	15	261
Knitting-machine .....	E. E. Sibley .....	386,272	July 17	1392	367	44	286
Knitting-machine .....	W. H. Stewart .....	381,963	May 1	89	22, 23	43	532
Knitting-machine .....	B. L. Stowe .....	393,184	Nov. 20	1463	342	45	894
Knitting-machine .....	B. L. Stowe .....	393,186	Nov. 20	1466	342	45	894
Knitting-machine .....	B. L. Stowe .....	393,187	Nov. 20	1468	343	45	895
Knitting-machine .....	B. L. Stowe .....	393,189	Nov. 20	1470	344	45	896
Knitting-machine .....	F. Wilcomb .....	391,348	Oct. 16	1635	433	45	329
Knitting-machine .....	H. C. Young .....	382,346	May 8	706	178	43	653
Knitting machine. Circular .....	R. M. Appleton .....	391,291	Oct. 16	1564	415	45	315
Knitting machine. Circular .....	G. J. and W. L. Cathcart .....	395,214	Dec. 25	2314	593	45	1543
Knitting machine. Circular .....	H. Curtin .....	389,385	Apr. 3	121	37	43	26
Knitting machine. Circular .....	S. G. Hall .....	384,621	June 19	1168	308	43	1359
Knitting machine. Circular .....	H. Heine .....	390,965	Oct. 9	1077	285	45	217
Knitting machine. Circular .....	S. Henshall .....	386,820	July 31	2215	583	44	463
Knitting machine. Circular .....	D. H. Hill .....	393,010	Nov. 20	1231	320	45	847
Knitting machine. Circular .....	E. Lippitt .....	394,587	Dec. 18	1287	337	45	1338
Knitting machine. Circular .....	W. J. McDevitt .....	376,328	Jan. 10	832	224	42	172
Knitting machine. Circular .....	J. F. Muldon .....	392,449	Nov. 6	407	101	45	671
Knitting machine. Circular .....	J. P. O'Neil .....	387,251	Aug. 7	78	18, 19	44	587
Knitting machine. Circular .....	H. C. Rightmure .....	388,721	Aug. 28	2322	625	44	1039
Knitting machine. Circular .....	L. E. Salisbury .....	379,819	Mar. 20	1420	377	42	1252
Knitting machine. Circular .....	C. T. Sullivan .....	376,789	Jan. 24	1557	409	42	321
Knitting-machine for knitting rib-tops .....	C. M. Musgrove .....	389,592	Sept. 18	1208	316	44	1315
Knitting-machine needle .....	C. Freschi .....	387,507	Aug. 7	459	120	44	63
Knitting machine. Straight .....	C. J. Appleton .....	381,898	May 1	1	1	43	515
Knitting machine. Straight .....	C. J. Appleton .....	391,832	Oct. 30	2319	629	45	485
Knitting machine. Straight .....	A. Beyler .....	391,011	Oct. 16	1160	308	45	230
Knitting machine. Straight .....	H. H. Humphrey .....	390,023	Sept. 25	1853	491	44	1449
Knitting machine. Warp .....	H. B. Payne .....	395,077	Dec. 25	2089	540	45	1504
Knitting-machines. Device for adjusting the stitch-wheels of .....	F. P. Holt .....	381,163	June 5	478	132	43	1213
Knitting-machines. Electric stop-motion for .....	C. Draper .....	382,593	May 8	1092	281	43	728

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Knitting-machines. Electrical stop mechanism for	A. M. Newlands	390,891	Oct. 9	964	{ 254 255 }	{ 45 45 }	195
Knitting-machines. Electrical stop-motion for	W. Talcott, 2d.	379,832	Mar. 20	1440	383	42	1256
Knitting-machines. Latch-needle and covering or transferring point for	W. H. Abel	382,675	May 8	1211	314	43	732
Knitting-machines. Latch-opener for	L. Jones, Jr.	386,636	July 24	1912	506	41	399
Knitting-machines. Needle-cylinder for	T. H. Worral	381,197	Apr. 17	1362	361	43	2-1
Knitting-machines. Reversing mechanism for	H. C. Rightmaie	385,322	June 26	2233	572	41	1577
Knitting-machines. Stop mechanism for	M. C. Yarwood	387,672	Aug. 14	721	1-5	44	713
Knitting-machines. Stop-motion for	R. B. Goodyear	388,774	Aug. 28	2402	618	44	1031
Knitting-machines. Stop-motion for	W. H. Kilbourne	390,375	Oct. 2	252	67	45	51
Knitting-machines. Tread-feeding mechanism for	G. E. Nye	392,685	Nov. 13	746	190	45	741
Knitting-machines. Trimming device for	E. C. Coveh, E. S. Cram, and W. E. Sheehan.	388,181	Aug. 21	1534	409	41	830
Knitting machines. Yarn-guiding mechanism for straight-	W. Esty	386,117	July 17	1155	{ 307 308 }	{ 41 41 }	240
Knitting stockings	F. E. Busiel	392,535	Nov. 6	525	{ 131 132 }	{ 45 45 }	635
Knitting stockings	W. Esty	386,118	July 17	1157	308	44	211
Knitting stockings	S. Henshall.	388,678	Aug. 28	2261	606	41	1026
Knob	A. T. Matthews	385,814	July 10	719	1-7	41	143
Knob and connecting-shank for the same. Door.	W. Livingstone	380,333	Apr. 3	38	11	41	10
Knob attachment	W. H. Flinn	379,639	Mar. 20	1142	302	42	1197
Knob. Door.	W. A. Gay	386,243	July 17	1353	357	41	278
Knob-lock.	L. A. Selleck and G. J. Keenan.	377,815	Feb. 14	732	1-5	41	619
Knob-shanks. Manufacture of	S. P. Cooley and C. M. Burgess.	391,024	Oct. 16	1192	316	45	245
Knob. Sheet-metal	A. T. Matthews	392,874	Nov. 13	1028	263	45	801
Knob. Stop.	M. Clark	391,246	Dec. 11	758	200	45	1224
Knockdown box	C. G. Krikorian	391,538	Oct. 23	1900	510	45	390
Knockdown box	C. L. Lockwood	382,312	May 8	647	165	41	643
Knockdown box	H. S. Munson	377,813	Feb. 14	730	1-4	42	648
Knockdown box or package	A. L. Ellis	385,451	July 3	178	47	41	36
Knotter.	F. A. Clondman	392,719	Nov. 13	796	203	45	755
Label-case	J. H. McCartney	377,764	Feb. 14	653	164	42	635
Labeling cans. Machine for	H. Hermann	391,962	Oct. 30	2515	681	45	524
Lace fastener	A. S. Mann	379,968	Mar. 27	1658	442	42	1306
Lace fastener. Shoe.	J. G. Hart	392,333	Nov. 6	228	59	45	637
Lace fastener. Shoe.	A. C. Muddick	376,041	Jan. 3	440	117	42	88
Lace-fastening	H. C. Heard	380,113	Mar. 27	1-72	498	42	1348
Lace-fastening	H. B. Ten Eyck	392,375	Nov. 6	296	75	45	651
Lace pin or brooch	E. D. Ginter	383,719	May 29	2751	725	43	1077
Lacing-cord fastener	C. A. Preston	386,496	July 24	1715	454	41	361
Lacing-cords. Fastening for	G. M. Sawyer	380,525	Apr. 3	329	94	41	67
Lacing. Corset.	A. S. Mann	385,642	July 21	1925	569	41	401
Lacing-hooks. Machine for setting	S. N. Smith	392,731	Nov. 13	971	{ 249 250 }	{ 45 45 }	729
Lacing-stands. Machine for setting	M. N. Bray and E. M. Pope	393,813	Dec. 4	112	31	45	1094
Ladder	E. A. Sherman	382,114	May 1	352	92	43	578
Ladder	H. C. Smith	392,075	Oct. 30	2674	{ 727 728 }	{ 45 45 }	555
Ladder	G. H. Thompson	381,656	Apr. 24	2037	{ 533 534 }	{ 43 43 }	432
Ladder	J. S. Tilley	377,666	Feb. 14	946	247	42	692
Ladder	H. T. Webster	377,219	Jan. 31	2167	572	42	446
Ladder and bench combined. Step.	J. W. Peacock	383,243	May 22	2036	534	43	932
Ladder and chair. Combined step.	P. Braun	3-7,045	July 31	2537	667	44	525
Ladder and ironing-board. Combined step.	W. J. Allen and B. West	380,159	Mar. 27	1933	515	42	1460
Ladder and ironing-board. Combined step.	P. Smith	393,591	Nov. 27	2074	543	45	1025
Ladder and table. Step.	J. B. Marsden	390,6-7	Oct. 9	681	192	45	144
Ladder. Extension.	H. Barnes	376,794	Jan. 24	1563	410	42	322
Ladder. Extension.	J. C. Gardner	382,871	May 15	1471	386	43	812
Ladder. Extension fire.	L. Dederick	383,106	May 22	1843	{ 482 483 }	{ 43 43 }	894
Ladder. Extension fire.	L. Dederick	383,107	May 22	1846	483	43	895
Ladder. Extension fire.	T. W. Russell	388,448	Aug. 28	1936	518	44	965
Ladder. Fire.	A. J. Sutherland	379,916	Mar. 20	1581	416	42	1221
Ladder. Fire.	A. J. Sutherland	399,626	Oct. 2	590	{ 156 157 }	{ 45 45 }	119
Ladder, fire-escape, and hose-carriage. Combined extension.	C. B. Schumann	381,587	Apr. 21	1938	{ 510 511 }	{ 43 43 }	412
Ladder. Flexible.	C. B. Schumann	381,853	Apr. 21	2337	606	43	488
Ladder. Flexible extension.	D. Parks	385,874	July 10	815	216	44	166
Ladder for city fire-department service	E. F. Steck	380,733	Apr. 10	647	179	43	138
Ladder. Fruit.	M. H. Murphy	380,563	Apr. 10	696	192	43	148
Ladder. Portable extension.	S. Piehe	391,188	Oct. 16	1417	379	45	288
Ladder-rails. Finishing	J. H. McCully	391,814	Nov. 13	949	243	45	781
Ladder. Step.	J. Eiden	383,449	May 29	2312	622	43	994
Ladder. Step.	J. Hill	377,616	Feb. 7	398	{ 400 401 }	{ 42 42 }	571
Ladder. Step.	B. F. Johnson	391,492	Dec. 11	1113	289	45	1392
Ladder. Step.	J. T. Miller	376,102	Jan. 10	528	111	42	113
Ladder. Step.	J. T. Miller	381,210	June 5	517	{ 150 151 }	{ 43 43 }	1227
Ladder. Step.	O. M. Sweet	388,599	Aug. 28	2149	577	41	1007
Ladder. Step.	A. M. Whiteley	378,638	Feb. 28	1929	512	42	897
Ladder with jump-shelf. Step.	J. T. W. McLaughlin	382,102	May 1	339	89	43	575
Ladders. Combined step and arm for platform attachments for	W. D. Robb	387,259	Aug. 7	90	22	41	581
Ladders to prevent accidents from slipping, &c. Shoe for	W. B. Harrison	385,806	July 10	709	181	44	446
Ladders. Truss-frame for	C. C. Pierson	392,361	Nov. 6	274	70	45	646
Ladle. Foundry.	G. A. Goodwin and W. F. How	377,747	Feb. 14	599	154	42	622
Ladles. Machine for making	I. Hamilton	376,377	Jan. 10	917	210	42	185
Lamp	S. W. Babbitt and H. B. Beach	382,936	May 15	1561	408	43	831



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Lamp.....	H. A. Black.....	382,210	May 1	485	125	43	603
Lamp.....	J. G. Hallas.....	381,009	Apr. 10	1071	284	43	216
Lamp.....	C. H. Lyman.....	376,716	Jan. 17	1430	376	42	288
Lamp.....	P. Meyrose.....	387,897	Aug. 14	1049	275	44	780
Lamp.....	J. F. Place.....	392,822	Nov. 13	959	246	45	786
Lamp.....	J. F. Place.....	392,823	Nov. 13	960	216	45	786
Lamp.....	B. B. Schneider.....	379,610	Mar. 20	1162	293	42	1178
Lamp.....	H. E. Shaffer.....	386,758	July 24	2087	549	44	430
Lamp.....	E. Tooley.....	386,508	July 24	1744	461	44	366
Lamp.....	C. S. Upton.....	379,836	Mar. 20	1451	384	42	1257
Lamp.....	C. S. Upton.....	381,042	Apr. 10	1122	301	43	226
Lamp.....	G. W. Woodward.....	386,861	July 31	2280	599	44	474
Lamp and attachments. Electric incandescent	I. W. Heysinger.....	389,888	Sept. 25	1664	441	44	1411
Lamp and burner. Central-draft	P. Rhind.....	382,270	May 1	575	145	43	619
Lamp and cigar-cutter. Combined	O. Volkmann.....	381,881	June 19	1563	406	43	1434
Lamp and stand. Candle	S. Clarke.....	383,862	June 5	19	6	43	1124
Lamp. Arc.....	T. E. Adams.....	380,074	Mar. 27	1815	484	42	1337
Lamp. Arc.....	C. Berton.....	380,545	Apr. 3	362	104	43	74
Lamp. Arc.....	J. E. Gaston.....	385,705	July 10	557	146	41	116
Lamp. Arc.....	V. C. Killin.....	388,053	Aug. 21	1306	352	41	834
Lamp. Arc.....	J. Lea.....	388,697	Aug. 28	2289	615	41	1032
Lamp. Arc.....	H. W. Libbey.....	391,477	Oct. 23	1820	487	45	373
Lamp. Arc.....	J. C. Young.....	392,393	Nov. 6	323	80	45	655
Lamp. Argand.....	L. J. Atwood.....	386,953	July 31	2413	631	41	500
Lamp. Argand.....	L. J. Atwood.....	387,756	Aug. 14	844	218	41	740
Lamp. Argand.....	L. J. Atwood.....	388,105	Aug. 21	1390	374	41	855
Lamp. Argand.....	L. J. Atwood.....	392,396	Nov. 6	329	81	45	656
Lamp. Argand.....	F. Rhind.....	387,258	Aug. 7	88	22	41	589
Lamp attachment. Incandescent	H. M. Doubleday.....	383,046	May 15	1751	453	41	667
Lamp-black. Apparatus for manufacture of	A. R. B. H., and H. E. Blood.....	387,487	Aug. 7	425	111	41	656
Lamp-black. Apparatus for the manufacture of	S. Cabot, Jr.....	388,475	Aug. 28	1973	529	41	673
Lamp-bracket.....	L. P. Fell.....	377,907	Feb. 14	859	221	42	674
Lamp-bracket.....	C. A. Roebor.....	395,000	Dec. 25	1923	511	45	14-1
Lamp-bracket.....	A. Thurber.....	385,486	July 3	231	59	44	46
Lamp-burner.....	A. Cautius.....	381,744	June 19	1351	352	43	1594
Lamp-burner.....	C. R. Harris.....	379,110	Mar. 6	366	101	42	1934
Lamp-burner.....	H. W. Hayden.....	390,079	Sept. 25	1952	519	41	1609
Lamp-burner.....	E. H. Hickok.....	386,822	July 31	2221	585	41	464
Lamp-burner.....	F. Rhind.....	379,813	Mar. 20	1409	375	42	1250
Lamp-burner. Argand.....	E. Beach.....	3-1,099	Apr. 17	1227	329	41	255
Lamp-burner. Argand.....	P. J. Foulton.....	398,068	Sept. 4	3-0	100	41	1145
Lamp-burner flame-extinguisher	L. J. Bullard.....	3-8,019	Aug. 21	1249	339	41	830
Lamp burner. Kerosene	T. Fitzgerald.....	377,195	Jan. 31	2122	560	42	438
Lamp. Candle.....	S. Clarke.....	383,861	June 5	19	6	41	1124
Lamp. Car.....	C. L. Betts.....	378,865	Mar. 6	7	3	42	968
Lamp. Car.....	C. W. Sherburne and F. A. Taber.....	377,961	Feb. 11	938	215	42	691
Lamp. Carbureting.....	O. W. Bennett.....	378,647	Feb. 23	1943	516	42	500
Lamp. Carbureting gas.....	A. Kitson.....	381,934	May 1	48	13	43	521
Lamp. Carbureting gas.....	A. Kitson.....	385,673	July 3	506	730	41	98
Lamp. Central-draft.....	C. A. Everts.....	389,371	Sept. 11	868	224	41	1246
Lamp. Central-draft.....	F. Rhind.....	386,658	July 24	1952	515	44	406
Lamp. Central-draft.....	F. Rhind.....	388,445	Aug. 28	1931	516	41	964
Lamp-chimney.....	C. L. Ingalls.....	3-0,801	Apr. 10	750	205	43	157
Lamp-chimney.....	J. Raddin.....	393,855	Dec. 4	179	48	45	1105
Lamp-chimney cleaner.....	E. W. Benway.....	387,439	July 3	162	41	44	33
Lamp-chimney cleaner.....	S. Bingham.....	392,180	Nov. 6	7	3	45	596
Lamp-chimneys. Manufacture of	G. W. Blair.....	375,796	Jan. 3	99	29	42	23
Lamp. Coach.....	O. W. Swift.....	383,080	May 15	1796	465	43	875
Lamp-collar.....	A. Gottschalk.....	382,605	May 8	1108	285	43	731
Lamp. Double-arc.....	M. J. Wightman and E. Rasmussen.....	378,818	Feb. 28	2201	587	42	948
Lamp. Electric.....	L. H. Leber.....	376,323	Jan. 10	845	222	42	171
Lamp. Electric.....	E. C. Ohmart.....	3-3,411	May 22	2288	607	43	976
Lamp. Electric-arc.....	C. W. Adams.....	380,271	Mar. 27	2082	557	42	1391
Lamp. Electric-arc.....	R. E. Fenner.....	382,421	May 8	813	207	43	674
Lamp. Electric-arc.....	A. Harding.....	380,435	Apr. 3	1-6	51, 52	43	38
Lamp. Electric-arc.....	E. E. Higgins and J. James.....	377,615	Feb. 7	397	100	42	571
Lamp. Electric-arc.....	E. R. Knowles.....	379,792	Mar. 20	1366	361	42	1242
Lamp. Electric-arc.....	R. H. Mather.....	390,245	Oct. 2	71	20, 21	45	17
Lamp. Electric-arc.....	W. H. Miller.....	376,007	Jan. 3	390	104	42	78
Lamp. Electric-arc.....	S. E. Nutting.....	391,761	Oct. 23	2198	594	45	452
Lamp. Electric-arc.....	G. Pfannkucho.....	391,447	Nov. 27	1850	487	45	978
Lamp. Electric-arc.....	R. Schefbauer.....	391,791	Dec. 18	1629	426	45	1407
Lamp. Electric-arc.....	L. W. Spencer and F. P. Jaquith.....	388,594	Aug. 28	2140	574	41	1005
Lamp. Electric-arc.....	J. J. Wood.....	381,817	June 19	1462	381	43	1416
Lamp. Extension pedestal.....	W. Crede.....	389,445	Sept. 11	982	263	44	1267
Lamp-extinguisher.....	M. E. Blum.....	386,181	July 17	1245	332	41	259
Lamp-extinguisher.....	E. L. Bryant.....	380,858	Apr. 10	832	226	43	172
Lamp-extinguisher.....	W. M. Greene.....	380,885	Apr. 10	877	235	43	180
Lamp-extinguisher.....	H. W. Hayden.....	390,078	Sept. 25	1951	518	44	1469
Lamp-extinguisher.....	A. G. Hoyde.....	390,970	Oct. 9	1095	289	45	219
Lamp-extinguisher.....	F. Rhind.....	390,254	Oct. 2	82	23	45	19
Lamp-extinguisher.....	E. J. Shaw.....	379,249	Mar. 13	560	156	42	1077

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Lamp extinguisher. Automatic pneumatic car.	A. Berry	380,381	Apr. 3	115	33, 34	43	25
Lamp-extinguisher for railway-cars.	T. Miller	379,121	Mar. 6	379	107 108	42	1037
Lamp-extinguishing apparatus.	J. Miller and F. R. Page.	380,129	Mar. 27	1897	506	42	1353
Lamp filament. Electric.	C. Seel	382,560	May 8	1037	264	43	718
Lamp filaments. Manufacture of incandescent.	J. W. Packard.	391,815	Oct. 30	2294	622	45	420
Lamp-filler.	M. W. Paxson	394,720	Dec. 18	1498	391	45	1379
Lamp-fixture.	D. W. Parker	381,275	Apr. 17	1473	396	43	302
Lamp-fixture. Extension.	E. H. Peck	389,005	Sept. 4	281	76	44	1127
Lamp-fixture. Extension.	F. Rhind.	383,769	May 29	2829	745	43	1091
Lamp-fixture. Extension.	F. Rhind. (Reissue)	10,767	Nov. 20	1704	450	45	942
Lamp fixture. Incandescent-electric.	H. M. Doubleday	378,358	Feb. 21	1526	399	42	809
Lamp for light-houses. Oil.	J. R. Wigham	387,939	Aug. 14	1123	301 302	41	797
Lamp. Gas.	J. W. Baker	385,785	July 10	678	177	44	140
Lamp. Gas.	C. Westphal	391,000	Oct. 9	1136	300	45	228
Lamp globe. Electric.	S. Heilmann	393,704	Nov. 27	2251	590	45	1058
Lamp-hanger.	D. Chisholm	394,153	Dec. 11	612	161	45	1198
Lamp. Hanging.	F. Rhind	379,508	Mar. 30	1569	414	42	1279
Lamp. Hanging.	F. Rhind	392,969	Nov. 13	1163	302	45	826
Lamp. Hanging.	F. Rhind	394,882	Dec. 18	1750	462	45	1435
Lamp. Hanging.	H. D. Richardson	389,717	Sept. 18	1404	367	44	1353
Lamp-holder.	E. F. Pierce	385,522	July 3	281	73	44	57
Lamp-holder. Adjustable.	A. F. and J. S. Lent.	389,308	Sept. 11	784	199	44	1229
Lamp holder and cut-out. Incandescent-electric.	C. Heisler	380,114	Mar. 27	1874	498	42	1348
Lamp holder and cut-out. Incandescent-electric.	C. Heisler	380,202	Mar. 27	1992	533	42	1372
Lamp holder. Incandescent.	W. A. Carey	385,039	June 26	1803	464	43	1191
Lamp. Incandescent.	H. M. Byllesby and P. Lange	383,616	May 29	2598	687	43	1045
Lamp. Incandescent electric.	T. A. Edison	379,770	Mar. 20	1333	356	42	1235
Lamp. Incandescent electric.	T. A. Edison	391,596	Oct. 23	1979	534	45	407
Lamp. Incandescent electric.	F. Moore	389,526	Sept. 11	1091	289	44	1287
Lamp. Incandescent electric.	A. L. Reumann	390,903	Oct. 9	981	258	45	198
Lamp. Incandescent gas.	H. Shaw	388,727	Aug. 28	2331	627	44	1041
Lamp. Incandescent electric.	T. A. Edison	389,369	Sept. 11	865	223	44	1245
Lamp. Incandescent electric.	E. H. Johnson	393,473	Nov. 27	1908	499	45	988
Lamp. Kerosene.	A. G. Heath	389,569	Sept. 18	1163	305	44	1307
Lamp. Magnesium.	T. Weissner	385,393	July 3	79	22	41	17
Lamp. Miner's safety.	A. Howat	382,161	May 1	416	109	43	589
Lamp. Miner's safety.	T. Shaw	386,661	July 24	1956	517	44	407
Lamp. Oil.	T. M. Fell	392,418	Nov. 6	356	88	45	662
Lamp. Oil spray or vapor.	J. Roots	381,079	June 5	350	99	43	1187
Lamp or burner for lighting or heating. Spray.	A. Neilson and J. Taylor	382,106	May 1	343	90	43	576
Lamp or other stand.	J. B. Hannay	391,706	Oct. 23	2128	575	45	437
Lamp. Railway-gate.	J. H. Rouse	393,621	Nov. 20	1260	326	45	853
Lamp. Regenerative gas.	A. J. McDonald	383,968	June 5	190	55	43	1157
Lamp. Regenerative gas.	C. E. Bell	381,205	Apr. 17	1371	366	43	283
Lamp. Regenerative gas.	J. Franklin	387,157	July 31	2713	711	44	555
Lamp. Reservoir.	E. Stein	385,283	July 3	62	18	44	14
Lamp. Reservoir.	W. P. Butler	389,410	Sept. 11	977	261	44	1266
Lamp-shade.	W. A. Evans and J. H. Ross	387,951	Aug. 14	1148	309	44	801
Lamp-shade.	S. Finn and C. H. Sangster	394,760	Dec. 18	1563	409	45	1393
Lamp-shade.	S. R. Kneeland	383,475	July 24	1691	445	44	357
Lamp-shade.	L. Michael	386,334	July 17	1470	390	44	300
Lamp-shade.	G. Waison	386,046	July 10	1043	278	44	213
Lamp-shade holder.	W. E. Brown	386,686	July 24	187	525	44	413
Lamp-shade holder.	W. P. Butler	389,439	Sept. 11	977	261	44	1366
Lamp-shade holder.	P. H. Griffin	378,883	Mar. 6	39	11	42	974
Lamp-shade holder and shade.	G. E. Stockwell	383,415	May 22	2293	609	43	977
Lamp shade or globe holder.	E. P. Gleason and E. F. Gennert	385,453	July 3	180	48	44	36
Lamp. Signal.	G. C. Dressel	390,288	Oct. 2	124	35	45	28
Lamp. Signal.	A. F. Rahm	386,495	July 24	1714	453	44	361
Lamp socket and electrical converter. Combined incandescent-electric.	E. A. Colby	376,583	Jan. 17	1209	320	42	248
Lamp socket and switch. Incandescent.	J. J. Wood	384,815	June 19	1456	381	43	1415
Lamp socket. Electric.	J. S. Adams and A. W. Morrell	385,436	July 3	155	42	44	32
Lamp socket. Electric.	S. Bergmann	389,280	Sept. 11	743	188	44	1921
Lamp socket. Incandescent.	T. Coad	392,666	Nov. 13	724	183	45	739
Lamp socket. Incandescent.	J. Spink and C. Gauzentes	381,478	June 12	942	244	43	1308
Lamp socket. Incandescent.	F. Thone	379,255	Mar. 13	566	157	42	1078
Lamp socket. Incandescent-electric.	W. F. Wollin and E. H. Werline	393,743	Nov. 27	2287	600	45	1065
Lamp sockets. Protector for electric.	C. P. Reilly	382,110	May 1	348	91	43	577
Lamp-stand.	D. W. Granbery	390,076	Sept. 25	1948	517	44	1469
Lamp-standard.	W. E. Hammond and J. G. Merriam	388,195	Aug. 21	1552	413	44	884
Lamp-standard.	W. Patzer	388,218	Aug. 21	1583	421	44	890
Lamp-standard.	W. A. Pencil	385,509	July 3	358	93	44	72
Lamp. Street.	M. L. Best	379,265	Mar. 13	579	160	42	1081
Lamp. Street.	E. A. Dubey	391,950	Oct. 30	2490	674	45	519
Lamp-support. Extension.	T. D. Stone	394,224	Dec. 11	725	192	45	1218
Lamp-supporting attachment.	N. Guyer	376,950	Jan. 24	1782	468	42	363
Lamp switch. Electric.	C. G. Perkins	392,633	Nov. 13	676	169	45	731
Lamp. Triangular tubular.	C. Bergener	387,038	July 31	2528	665	44	523
Lamp. Tubular.	C. L. Betts	381,461	Apr. 17	1751	468	43	357
Lamps. Adjustable nipple for incandescent electric.	E. F. Gennert	381,921	May 1	31	9	43	520
Lamps. Adjustable reflector and hood-shade for.	R. M. Waizer	376,692	Jan. 17	1396	367	42	281
Lamps. Apparatus for extinguishing the lights of car.	H. M. Young	377,445	Feb. 7	147	33	42	523
Lamps. Apparatus for mounting filaments of incandescent.	H. Lemp	392,159	Oct. 30	2818	764 765	45	583
Lamps. Automatic cut-out for incandescent.	M. J. Wightman and H. Lemp	386,099	July 10	1128	300	44	228
Lamps. Automatic regulator for electric.	R. Belfield	386,796	July 31	2158	567	44	453
Lamps. Carbon conductor for electric.	H. J. Von Metzradt	383,602	May 29	2570	...	43	1039
Lamps. Cut-out for electric.	C. Heisler	394,180	Dec. 11	652	175	45	1205
Lamps. Cut-out for incandescent.	H. Lemp and M. J. Wightman	383,891	June 5	63	20	43	1133
Lamps. Evacuating electric.	E. P. Thompson	383,676	May 29	2680	709	43	1062

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dr.g.	Vol.	Page.
Lamps. Extension-standard for	J. Kintz	389,577	Sept. 18	1179	309	44	1310
Lamps. Extension-standard for	J. Kintz. (Reissue)	10,974	Dec. 11	1209	314	45	1310
Lamps. Extinguisher mechanism for	J. Hinks	391,712	Oct. 23	2135	577	45	439
Lamps. Extinguisher mechanism for	W. Snelgrove	386,038	July 10	1033	{ 274 275 }	44	211
Lamps. Filament for incandescent	G. S. Ram	393,391	Nov. 27	1776		45	964
Lamps. Globe for electric-arc	W. W. Downing	390,846	Oct. 9	906	239	45	184
Lamps. Manufacture of filaments for electric incandescent	J. W. Packard	393,484	May 29	2412	641	43	1007
Lamps. Manufacture of incandescent electric	O. A. Moses	383,140	May 22	1891	493	43	904
Lamps. Manufacture of incandescent electric	E. P. Thompson	382,846	May 15	1438	378	43	806
Lamps. Manufacture of incandescent electric	E. P. Thompson	383,675	May 29	2678	709	43	1062
Lamps. Oil-reservoir for street or other	G. M. Voltz and W. P. Butler	389,426	Sept. 11	949	249	44	1261
Lamps. Reflector for electric	H. Purdy	381,167	Apr. 17	1323	353	43	274
Lamps. Shade-ring for hanging	E. Fisher	389,375	Sept. 11	872	225	44	1247
Lamps. Socket and key for incandescent	G. Wilkes	379,842	Mar. 20	1461	386	42	1259
Lamps. Storm-protector for electric	T. H. Brady	387,044	July 31	2536	667	44	525
Lamps. Storm-protector for electric	T. H. Brady	390,440	Oct. 2	341	89	45	72
Lamps. Supporting-crane for electric	L. J. Wing	378,913	Mar. 6	73	21	42	981
Lamps. Suspension-arm for electric	J. J. Wood	383,493	July 3	242	63	44	48
Lamps. Suspension device for	E. L. Bryant and E. E. Trumbour	390,837	Oct. 9	895	237	45	182
Lamps. Suspension device for	F. Rhind	389,409	Sept. 11	938	{ 243 244 }	44	1256
Lamps. Wick-raiser for central-draft	Z. Davis	394,465	Dec. 11	1081	280	45	1286
Land-roller	J. B. Belcher	378,916	Mar. 6	80	33	42	982
Land-roller	G. C. Foote	377,066	Jan. 31	1951	512	42	403
Land-roller	F. Grimes	383,807	May 29	2900	765	43	1104
Land-roller	S. F. Hartley	380,033	Mar. 27	1758	471	42	1325
Land-roller	S. F. Hartley	380,283	Mar. 27	2099	561	42	1394
Land-roller	J. Riebold	386,220	July 17	1319	349	44	272
Land-roller and clod-crusher	F. Twick	380,003	Mar. 27	1712	458	42	1317
Land-roller and harrow	L. B. Phelps	380,131	Mar. 27	1899	507	42	1333
Land-roller and seed-sower	G. R. Thomson and J. B. Johnson	390,417	Oct. 2	307	81	45	65
Lantern	J. H. Burrell, Jr.	387,944	Aug. 14	1135	{ 304 305 }	44	798
Lantern	J. Charleson	384,234	June 12	591	160	43	1244
Lantern	C. W. Colony. (Reissue)	10,911	Mar. 20	1589	419	42	1283
Lantern	H. M. Drew and J. A. Grant	381,836	Apr. 24	2304	599	43	482
Lantern	W. W. Hutchins	387,976	Aug. 14	1180	321	44	807
Lantern	H. L. Jewell	381,557	Apr. 24	1896	500	43	404
Lantern	H. L. Jewell	389,083	Sept. 4	403	106	44	1149
Lantern	H. L. Jewell	389,084	Sept. 4	404	106	44	1150
Lantern	J. H. Kelly and E. P. Follett	378,889	Mar. 6	47	13	42	975
Lantern	G. A. Kennedy	391,373	Oct. 16	1676	443	45	336
Lantern	H. A. Matthews and D. M. Ireland	381,053	June 5	315	89, 90	43	1181
Lantern	F. Rhind	382,831	May 15	1418	372	43	802
Lantern	F. R. and A. P. Smith	394,025	Dec. 4	418	113	45	1151
Lantern-frame	C. I. Mitchell	394,590	Dec. 18	1291	338	45	1329
Lantern-guard	L. F. Betts	384,821	June 19	1471	384	43	1417
Lantern-holder	C. J. Higgins	392,431	Nov. 6	377	93	45	665
Lantern lens	C. A. Duhring	389,878	Sept. 25	1649	437	44	1408
Lantern or lamp. Tubular	L. F. Betts	389,832	Sept. 18	1559	412	44	1384
Lantern. Railway signal	J. M. Heverly	392,429	Nov. 6	374	92	45	664
Lantern. Railway signal	C. H. Peters	385,877	July 10	821	217	44	167
Lantern. Rotatable signal	G. Madden	387,980	Aug. 14	1188	322	44	808
Lantern. Rotatable signal	G. Madden	387,981	Aug. 14	1188	322	44	808
Lantern. Signal	W. K. Beard and J. M. Raymond	376,573	Jan. 17	1196	316	42	244
Lantern. Signal	A. J. Cogley and J. S. Kendig	393,460	Nov. 27	1873	493	45	922
Lantern. Signal	G. W. Leth	380,293	Mar. 27	2111	565	42	1396
Lantern. Signal	G. Madden	391,808	Oct. 30	2285	620	45	479
Lantern. Signal	A. H. Mulliken	386,715	July 24	2027	534	44	420
Lantern. Signal	W. H. Smith	380,142	Mar. 27	1913	510	42	1356
Lantern slide, Magic	E. T. Potter	390,396	Oct. 2	282	74	45	60
Lantern-supporter	C. Smith	385,015	June 26	1763	456	43	1484
Lantern. Tubular	C. Bergener	378,648	Feb. 28	1946	517	42	900
Lantern. Tubular	L. F. Betts	379,304	Mar. 13	641	174	42	1093
Lantern. Tubular	L. F. Betts	381,755	Apr. 24	2178	569	43	459
Lantern. Tubular	F. Dietz	387,970	Aug. 14	1170	318	44	805
Lantern. Tubular	R. Hermance	379,868	Mar. 20	1514	398	42	1269
Lantern. Tubular	E. C. Glazier	391,240	Oct. 16	1490	396	45	392
Lantern. Tubular	C. J. Higgins	392,430	Nov. 6	375	93	45	665
Lantern. Tubular	J. B. Stetson	384,546	June 12	1057	276	43	1329
Lantern. Tubular	J. H. Stone	382,626	May 8	1137	293	43	737
Lantern. Tubular	W. C. Whitney	388,470	Aug. 28	1967	{ 527 528 }	44	971
Lanterns. Picture-holding disk for magic	G. Carotte	376,631	Jan. 17	1301	342	42	264
Lanterns. Reflector attachment for tubular	L. F. Betts	377,287	Jan. 31	2372	600	42	465
Laryngoscope	J. Leiter	376,601	Jan. 17	1238	325	42	253
Last	A. S. Adler	379,039	Mar. 6	261	73	42	1015
Last	D. Ball	381,098	Apr. 17	1236	329	43	255
Last	J. C. Bickford and W. I. Stetson	388,618	Aug. 28	2176	585	44	1012
Last	C. H. Buchanan	381,015	June 5	255	73	43	1171
Last	G. H. Clark	388,830	Sept. 4	32	40	44	1078
Last	H. M. Goodhue	388,554	Aug. 28	2076	558	44	992
Last	L. W. Hawkes	389,468	Sept. 11	1013	271	44	1273
Last	J. L. Joyce	387,593	Aug. 7	610	{ 158 159 }	44	689
Last	H. G. Locke	385,362	July 3	38	12	44	10
Last	J. B. Mullen	381,845	Apr. 24	2321	603	43	487
Last	J. S. Turner	382,338	May 8	692	174	43	650
Last	J. S. Turner	382,339	May 8	693	174	43	650
Last-block fastener	W. Cook	388,182	Aug. 21	1533	409	44	880
Last-block fastener	H. S. Reynolds	377,439	Feb. 7	141	31	42	521
Last for overshoes	F. D. Fry	392,550	Nov. 6	547	138	45	699

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Last. Repairer's .....	A. Wiseman .....	379,434	Mar. 13	827	223	42	1130
Last. Repairing .....	J. Morrell .....	390,504	Oct. 2	436	112 113	45	83
Last. Shoe-maker's .....	G. W. Keller .....	334,448	June 12	907	236	43	1302
Last. Shoe-maker's .....	L. E. Miles .....	379,590	Mar. 20	1071	285	42	1183
Last-standard .....	B. C. Kaskell .....	385,514	July 3	271	69	41	55
Lasts. Anvil heel-shouldering machine in the manu- facture of .....	W. Thompson .....	388,744	Aug. 28	2351	634	44	1045
Lasts. Making shoe-makers' .....	F. G. Hitzfeld .....	381,551	Apr. 24	1887		43	402
Lasting and sole-laying machine .....	C. T. Wood .....	391,001	Oct. 9	1137	301 302	45	228
Lasting-awl .....	C. K. Bradford .....	376,939	Jan. 24	1768	465	42	370
Lasting-jack .....	G. H. Clark .....	384,891	June 19	1513	409	43	1436
Lasting-jack .....	S. D. Tripp .....	378,118	Feb. 21	1159	302	42	741
Lasting-machine .....	F. Chase .....	376,368	Jan. 10	965	237	42	182
Lasting-machine .....	M. R. Ethridge .....	392,193	Nov. 6	26	7	45	599
Lasting-machine .....	I. Fréchette .....	393,503	Nov. 27	1945	509	45	996
Lasting-machine .....	H. M. Goodhue .....	391,788	Oct. 30	2245	611	45	470
Lasting-machine .....	H. M. Goodhue .....	393,066	Nov. 20	1305	340	45	862
Lasting-machine .....	H. A. Gray .....	391,467	Oct. 23	1808	484	45	370
Lasting-machine .....	J. W. Hatch .....	378,446	Feb. 28	1662	436 437	42	843
Lasting-machine .....	J. W. Hatch and J. Pitcher .....	378,506	Feb. 28	1745	460	42	860
Lasting-machine .....	R. Hathaway and E. G. Paull .....	393,760	Dec. 4	39	12	45	1079
Lasting-machine .....	J. Q. A. Houghton .....	385,557	July 3	334	86 87 88	44	67
Lasting-machine .....	C. H. Kelley .....	381,019	Apr. 10	1081	287	43	218
Lasting-machine .....	W. Lawes .....	393,768	Dec. 4	50	14	45	1081
Lasting-machine .....	F. W. Luscomb and D. A. Corey .....	383,772	Dec. 4	55	16	45	1083
Lasting-machine .....	T. O'Boiger .....	388,577	Aug. 28	2113	567	44	999
Lasting-machine .....	S. W. Paine, H. A. Gray, and C. E. Pettee .....	387,366	Aug. 7	247	64, 65	44	619
Lasting-machine .....	C. Sinning and J. T. Avery .....	387,926	Aug. 14	1105	293 294 295 296	44	792
Lasting-tool .....	C. H. Helms .....	382,874	May 15	1476	387	43	813
Lasting-tool .....	J. R. Jacques .....	382,429	May 8	826	212	43	676
Lasting-tool .....	J. Spring .....	379,035	Mar. 6	256	72	42	1014
Latch .....	H. Anshur and B. F. Spranger .....	394,949	Dec. 25	1896	491	45	1465
Latch .....	S. H. Pether .....	394,685	Dec. 18	1451	378	45	1369
Latch .....	A. H. Jones .....	384,852	June 19	1519	395	43	1427
Latch .....	E. E. Knowles .....	389,390	Sept. 11	901	235	44	1252
Latch .....	J. H. and T. D. Morris .....	386,554	July 24	1812	479	44	378
Latch .....	E. H. Peck .....	392,133	Oct. 30	2777	754	45	576
Latch .....	L. S. Shelly .....	386,271	July 17	1392	367	44	285
Latch .....	V. Spicer .....	394,140	Dec. 4	591	159	45	1184
Latch .....	E. S. Winchester .....	394,427	Dec. 11	1028	270	45	1276
Latch and handle. Lever .....	J. F. Wollensak .....	381,740	Apr. 24	2156	564	43	455
Latch and lock combined .....	A. A. Kellogg .....	389,304	Sept. 11	780	198	44	1228
Latch and lock. Combined .....	J. Adams .....	377,733	Feb. 14	578	149	42	619
Latch and lock. Combined .....	J. C. Craig .....	387,400	Aug. 7	299	77	44	629
Latch and lock. Combined .....	J. C. Craig .....	387,401	Aug. 7	300	77	44	629
Latch and lock. Combined .....	M. Jobborn .....	377,200	Jan. 31	2131	562	42	440
Latch and lock. Combined .....	M. Jobborn .....	379,788	Mar. 20	1361	362	42	1241
Latch and lock. Combined .....	H. Kendall .....	394,701	Dec. 18	1469	383	45	1373
Latch and lock. Combined .....	J. Loch .....	387,523	Aug. 7	480	126	44	666
Latch and lock. Combined .....	J. Maynard .....	393,379	Nov. 27	1759	466	45	960
Latch and lock. Combined .....	J. Sharpe .....	381,435	Apr. 17	1709	458	43	350
Latch-bolt .....	F. Spengler .....	390,409	Oct. 2	298	78	45	63
Latch-case .....	C. W. Bullard .....	386,522	July 24	1766	466	44	370
Latch. Double-acting .....	A. H. Jones .....	381,792	Apr. 24	2226	583	43	468
Latch. Gate .....	C. E. Angell .....	377,543	Feb. 7	293	74	42	551
Latch. Gate .....	H. L. Booth .....	390,645	Oct. 9	623	146	45	132
Latch. Gate .....	G. W. Charleville .....	387,394	Aug. 7	293	74	41	628
Latch. Gate .....	W. R. White .....	376,568	Jan. 17	1188	315	42	242
Latch. Night .....	W. Bohannan .....	377,983	Feb. 14	968	252	42	696
Latch. Night .....	R. Muench .....	381,162	Apr. 17	1314	351	43	272
Latch. Reversible .....	J. H. Woolaston .....	394,428	Dec. 11	1029	270	45	1277
Lath fastener and stiffener. Wire .....	M. W. Hammond .....	389,885	Sept. 25	1660	440	44	1410
Laths and cutting veneers. Machine for rendering .....	W. Ellis .....	390,229	Oct. 2	124	35, 36	45	28
Lathing. Machine for making metallic .....	A. Ekstom .....	385,663	July 3	492	127	41	96
Lathing. Machine for making sheet-metal .....	E. Hawes .....	388,666	Sept. 4	94	25	44	1090
Lathing. Machine for opening out metallic .....	J. R. Branden .....	390,441	Oct. 2	341	90, 91	45	72
Lathing. Machine for slitting metallic sheets for metallic .....	J. R. Branden .....	385,405	July 3	103	28, 29	44	22
Lathing. Metallic .....	B. Scarles .....	387,740	Aug. 14	825	213	44	736
Lathing. Metallic .....	B. Scarles .....	388,449	Aug. 28	1938	519	44	966
Lathing. Metallic .....	B. Scarles .....	388,919	Sept. 4	168	45	44	1104
Lathing. Metallic .....	B. Scarles .....	388,920	Sept. 4	169	45	44	1105
Lathing. Metallic .....	B. Scarles .....	394,403	Dec. 11	997	261	45	1271
Lathing to the wooden joists and studs of buildings. Device for securing wire .....	M. Hegbom .....	383,952	June 5	163	48	43	1151
Lathing to wooden joists and studs of buildings. Device for securing wire .....	M. Hegbom .....	383,951	June 5	162	48	43	1151
Lathing. Wire-cloth .....	W. Orr .....	394,602	Dec. 18	1307	342 343	45	1343
Lathing. Wire-cloth .....	J. W. White .....	391,443	Oct. 23	1771	474	45	363
Lathe .....	W. Chaplin .....	375,988	Jan. 3	358	96	42	73
Lathe .....	R. C. Fay .....	379,568	Mar. 20	1038	276 277	42	1177
Lathe .....	C. Holly .....	392,337	Nov. 6	293	60, 61	45	638
Lathe .....	W. C. Jones and W. S. Rogers .....	379,313	Mar. 13	655	177 178	42	1095

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Lathe	C. H. Russola	377,779	Feb. 14	678	{ 170 171 }	42	639
Lathe attachment	J. W. Allen	381,097	Apr. 17	1225	329	43	255
Lathe. Button	F. A. Merwin	376,447	Jan. 17	1028	269	42	212
Lathe-carriages. Front apron for	J. R. Back	388,808	Sept. 4	2	1	44	1073
Lathe-centers. Apparatus for grinding	T. W. R. McCabe	394,786	Dec. 18	1623	425	45	1405
Lathe-feed	W. C. Jones and W. S. Rogers	377,761	Feb. 14	619	160	42	626
Lathe for turning articles having longitudinally-curved surfaces.	C. A. Benedict	388,110	Aug. 21	1390	375	44	856
Lathe for turning articles of an irregular contour. Copying	T. Millett, Jr	388,900	Sept. 4	140	37, 38	44	1099
Lathe for turning axles	J. L. Bogert	380,785	Apr. 10	727	{ 199 200 }	43	153
Lathe for turning irregular forms	P. Kettenring	378,392	Feb. 21	1472	385	42	797
Lathe for turning wooden dishes	W. S. Shotwell	380,824	Sept. 18	1547	409	44	1382
Lathe for turning wooden spirals	V. Merklen	390,884	Oct. 9	954	251	45	193
Lathe for wooden handles	N. R. Flint	384,355	June 12	776	203	43	1276
Lathe head-stock lock	C. H. Weston, (Reissue)	10,900	Feb. 7	573	147	42	604
Lathe. Polishing	H. H. Seyville	382,909	May 15	1525	399	43	824
Lathe-spindles. Anti-friction adjustable bearing for	J. Stark	388,927	Sept. 4	183	48	44	1108
Lathe-tool	J. D. Hall	379,218	Mar. 13	519	146	42	1070
Lathe-tool	M. C. Johnson	390,604	Oct. 2	565	150	45	114
Lathe-tool	A. Paterson	382,724	May 15	1277	335	43	773
Lathe-tool for finishing and polishing	W. M. Seeger	394,406	Dec. 11	1001	262	45	1272
Lathe. Turning	E. Lindner	377,080	Jan. 31	1969	517	42	406
Lathe. Turning	G. Philion	383,369	May 22	2217	588	43	965
Lathe. Wood-turning	L. L. Hill	377,017	Feb. 7	399	101	42	371
Lathes. Attachment for turning	E. Lindner	377,079	Jan. 31	1968	517	42	406
Lathes. Automatic setting mechanism for spoke	P. Lesh	389,157	Sept. 4	542	136	44	1172
Lathes. Back-gear for turning	J. R. Baker	389,431	Sept. 11	956	250	44	1263
Lathes. Shelf of wire-netting for	H. T. Clawson	370,789	Apr. 10	707	202	43	155
Lathes. Stop for the carriages of screw-cutting	T. Heslin	387,514	Aug. 7	468	113	44	664
Lathes. Taper attachment for	E. A. Alpress	376,843	Jan. 24	1641	{ 429 430 }	42	335
Lathes. Tool-rest for hand	E. Rivett	389,012	Sept. 4	296	79	44	1129
Lathes. Turret-head for	O. G. Guss	387,559	Aug. 7	552	143	44	679
Lathes. Universal feed attachment for engine	E. A. Alpress	386,177	July 17	1240	{ 330 331 }	44	258
Lawn-rake	J. W. Calef	388,179	Aug. 21	1530	403	44	879
Lawn-rake	L. Gibbs	385,751	July 10	628	164	44	130
Lawn-sprinkler	W. W. Lee	381,699	June 19	1297	339	43	1383
Lawn-sprinkler	J. S. Woolsey	390,427	Oct. 2	320	84	45	68
Lawn-trimmer	H. H. Gridley	391,742	Oct. 23	2173	587	45	446
Laxative compound	A. E. Waters	392,382	Nov. 6	304		45	653
Lead and base bullion from slag. Apparatus for separating	W. B. Devereux	384,349	June 12	767	200	43	1274
Lead and rule holder	A. A. Low	383,959	June 5	174	51	43	1154
Lead and rule holder	A. A. Low	383,960	June 5	177	51, 52	43	1154
Lead and rule holder	A. A. Low	383,961	June 5	180	52	43	1155
Lead and rule holder	A. A. Low	383,962	June 5	183	53	43	1155
Lead bullion. Desilverizing	H. H. Schlapp	380,524	Apr. 3	330	94	43	67
Lead-fumes. Apparatus for collecting and utilizing waste	G. H. Ward	381,391	Apr. 17	1501	405	43	308
Lead. Making white	N. K. Morris and W. West	389,591	Sept. 18	1207	310	44	1315
Lead or base bullion in smelting from slag, &c. Apparatus for separating	W. B. Devereux	377,802	Feb. 14	716	181	42	646
Lead or base bullion in smelting from slag, mattes, and speiss. Apparatus for separating	W. B. Devereux	381,118	Apr. 17	1257	337	43	261
Lead or crayon holder	C. W. Boman	393,812	Dec. 4	110	31	45	1093
Lead or crayon holder	C. W. Boman	394,053	Dec. 4	469	126	45	1161
Lead or crayon holder	C. W. Boman	394,054	Dec. 4	470	126	45	1161
Lead or crayon holder	E. Tyrrell	394,146	Dec. 4	599	161	45	1186
Lead pigment from galena ore. Manufacturing sublimed	G. T. Lewis	386,836	July 31	2244	590	44	468
Lead traps. Making	J. A. Lowe	370,203	Jan. 10	683	180	42	140
Lead wire, &c. Die for making	J. Robertson	389,321	Sept. 11	798	203	44	1231
Leaf-turner	O. Lange	395,064	Dec. 25	2068	535	45	1499
Leaf-turner	L. Maas	377,569	Feb. 7	326	83, 84	42	585
Leaf-stopper for ships, &c.	C. H. S. Schultz	387,200	July 31	2779	727	44	566
Leather and other materials. Machine for ornamenting	E. B. Stimpson	376,613	Jan. 17	1266	{ 331 332 }	42	257
Leather. Apparatus for the manufacture of	W. Schweichhardt	285,644	July 3	469	122	44	91
Leather. Artificial	I. Choate and C. O. Norcross	376,555	Jan. 24	1657		42	338
Leather-board. Machine for stripping	W. E. Frost	384,032	June 5	282	79, 80	43	1175
Leather. Composition for softening and renovating	L. C. De Willers	381,680	Apr. 24	2072		43	439
Leather-creasing machine	S. H. Randall	381,028	Apr. 10	1098	292	43	231
Leather-creasing machine	J. F. K. O'Conner	383,652	July 24	1941	513	44	404
Leather-cutting die	A. D. Goetz	392,673	Nov. 13	730	185	45	740
Leather-cutting machine	J. P., A., F., and A. Cave	379,857	Mar. 20	1485	{ 332 333 }	42	1263
Leather-cutting machine	W. Freeman	377,298	Jan. 31	2284	604	42	467
Leather-dressing machine	G. V. Anderson	377,473	Feb. 7	187	44, 45	42	532
Leather edgings, &c. Machine for making	J. J. and G. J. Daley	386,187	July 17	1251	{ 333 334 }	44	260
Leather-gouging machine	Z. T. French and W. C. Meyer	381,994	May 1	159	40, 41	43	543
Leather-graining machine	M. M. Scott	393,486	Nov. 27	1926	504	45	991
Leather. Machine for ornamenting	A. J. Tewksbury	377,369	Aug. 7	100	25	44	591
Leather. Machine for splitting scrap	J. A. Josselyn	371,075	Apr. 10	1178	313	43	237
Leather. Machine for staking, stretching, and softening	W. M. Hoffman	378,066	Feb. 11	1079	284	42	718
Leather. Machine for the treatment of	H. Thurlow	386,667	July 24	1964	518	44	409
Leather. Ornamenting	P. Hannig	385,926	July 10	885	234	44	181
Leather-rounding machine	W. Foglesong	392,113	Oct. 30	2747	747	45	569

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Leather-rounding machine .....	T. S. Roberts and J. Lipps .....	393,788	Dec. 4	78	32	45	1088
Leather-scraping machine .....	J. Hodskinson .....	382,262	May 1	564	142	43	617
Leather-skiving machine .....	C. H. Bayley .....	391,575	Oct. 23	1949	525	45	401
Leather-skiving machine .....	S. H. Randall .....	391,190	Oct. 16	1420	380	45	289
Leather-splitting machine .....	W. E. Adams .....	378,157	Feb. 21	1223	319 320 321	42	751
Leather-splitting machine .....	W. E. Adams .....	378,158	Feb. 21	1226	322 323	42	752
Leather-splitting machine .....	A. Hull .....	379,700	Mar. 20	1233	328	42	1515
Leather-splitting machine .....	D. Knox .....	388,419	Aug. 28	1895	506	44	956
Leather-splitting machine .....	S. Ross, Jr. ....	378,179	Feb. 21	1253	330 331	42	757
Leather-splitting machine .....	G. L. Tyler .....	378,185	Feb. 21	1261	333 334	42	759
Leather-splitting machine .....	G. L. Tyler .....	378,186	Feb. 21	1263	334	42	759
Leather-staking machine .....	G. W. Baker .....	394,750	Dec. 18	1551	405 406	45	1390
Leather-staking machine .....	P. H. Daley .....	393,544	Nov. 27	2018	528	45	1012
Leather-staking machine .....	W. M. Hoffman .....	389,511	Sept. 11	1071	284 285	44	1233
Leather-staking machine .....	J. F. Ingraham .....	387,305	Aug. 7	162	43	44	602
Leather-stretching machine .....	W. E. Adams .....	388,611	Aug. 28	2164	581	44	1010
Leather-trimming machine .....	S. H. Randall .....	380,296	Mar. 27	2113	566	42	1397
Leather-trimming machine .....	G. Schmidt .....	384,287	June 12	667	179	43	1258
Leather-turning machine .....	Q. W. Booth .....	385,497	July 3	248	63, 64	44	50
Leather-working machine .....	A. M. Bowers .....	392,004	Oct. 30	2572	699	45	535
Leather-working machine .....	G. P. McMahon .....	393,445	Dec. 4	164	44	45	1103
Ledger and bill-book. Combined	C. L. Searcy .....	389,668	Sept. 18	1333	349	44	1337
Leech. Artificial .....	J. A. Howell .....	391,414	Oct. 23	1731	462	45	355
Leer-pan .....	W. C. King .....	381,387	Apr. 17	1639	436	43	335
Leg and foot protector .....	J. R. Brodie .....	392,584	Nov. 13	604	151	45	717
Leg. Artificial .....	A. Gault .....	383,569	May 29	2533	669	43	1030
Leg. Artificial .....	A. Gault .....	390,358	Oct. 2	227	61	45	48
Leggin .....	W. H. Wiley .....	386,047	July 10	1044	278	44	213
Lemon-juice extractor .....	E. Baltzley .....	387,942	Aug. 14	1132	303	44	798
Lemon-juice extractor .....	R. E. Bristow .....	377,140	Jan. 31	2053	538	42	423
Lemon-juice extractor .....	J. L. Easley .....	385,851	July 10	777	206	44	158
Lemon-squeezer .....	W. K. Crofford .....	377,291	Jan. 31	2278	602	42	466
Lemon-squeezer .....	A. Edie .....	386,694	July 24	1906	528	44	414
Lemon-squeezer .....	C. M. Footitt .....	388,352	Aug. 21	1788	478	44	931
Lemon-squeezer .....	A. Shea .....	382,774	May 15	1347	354	43	787
Letter-box .....	J. B. Archer .....	379,302	Mar. 13	639	173 174	42	1092
Letter-box .....	W. M. Black .....	391,293	Oct. 16	1567	415 416	45	316
Letter-box .....	C. A. Cummings and R. H. Church .....	394,099	Dec. 4	530	142	45	1172
Letter-box .....	E. A. Dubey .....	378,955	Mar. 6	132	38	42	992
Letter-box .....	D. I. Eckerson .....	390,072	Sept. 25	1931	509	44	1465
Letter-box .....	G. H. Fister .....	389,744	Sept. 18	1443	378	44	1361
Letter-box .....	F. Giffard .....	393,331	Nov. 20	1687	445	45	938
Letter-box .....	J. S. Hagerty .....	392,028	Oct. 30	2604	708	45	541
Letter-box .....	D. Harrigan .....	384,154	June 5	464	127	43	1210
Letter-box .....	E. G. Heller .....	391,710	Oct. 23	2133	576	45	438
Letter-box .....	L. A. Hoke .....	382,000	May 1	175	45	43	546
Letter-box .....	J. W. Langford .....	384,698	June 19	1296	338	43	1383
Letter-box .....	J. H. McDonald .....	387,242	Aug. 7	64	15	44	584
Letter-box .....	R. F. Regester .....	386,757	July 24	2086	548	44	430
Letter-box .....	H. T. Sidway .....	391,201	Oct. 16	1435	384	45	292
Letter-box .....	J. E. Smith .....	384,596	June 12	1128	298	43	1342
Letter-box .....	S. Thompson .....	380,148	Mar. 27	1921	512	42	1358
Letter-box. Alarm .....	G. F. Girvan .....	378,166	Feb. 21	1236	325	42	754
Letter-box connection .....	J. G. Cutler .....	390,347	Oct. 2	212	56	45	45
Letter-box. Electric .....	C. F. Harms .....	393,558	Nov. 27	2031	532	45	1015
Letter-boxes. Air-cushion for .....	J. G. Cutler .....	381,058	Apr. 10	1150	307	43	231
Letter-sheet and envelope. Combined .....	W. H. Kister .....	381,558	Apr. 24	1897	500	43	404
Lettering-block .....	J. Springer .....	377,090	Jan. 31	1988	520	42	410
Levee and ditching machine .....	E. J. Engman .....	379,864	Mar. 20	1507	396 397	42	1268
Level and inclinometer. Spirit .....	C. H. Miller .....	391,717	Oct. 23	2142	579	45	440
Level and inclinometer. Spirit .....	E. F. St. John .....	377,870	Feb. 14	801	205	42	662
Level and straight-edge. Spirit .....	J. W. W. Clark .....	393,539	Nov. 27	2011	525 526	45	1010
Level. Ditching .....	E. Reichenbach .....	383,767	May 29	2325	744	43	1090
Level. Plumb .....	W. C. Looker and J. Newlove .....	377,396	Feb. 7	44	13	42	504
Level. Plumb .....	C. Marshall .....	377,434	Feb. 7	135	30	42	520
Level. Plumb .....	C. Ritz .....	379,662	Mar. 20	1173	311	42	1203
Level. Plumb .....	E. A. Wentworth and A. J. Traver .....	377,658	Feb. 7	467	119	42	583
Level sheath. Spirit .....	J. S. Truitt .....	379,259	Mar. 13	572	159	42	1080
Level. Spirit .....	A. D. Goodell .....	391,242	Oct. 16	1492	396	45	303
Level. Spirit .....	J. C. Hutton .....	385,516	July 3	273	70, 71	44	56
Level. Spirit .....	J. G. Jackson .....	392,124	Oct. 30	2764	751	45	573
Level. Spirit .....	E. A. and C. M. Stratton .....	383,196	May 22	1964	515	43	918
Levels. Reflector for spirit .....	L. Crouse .....	385,597	July 3	399	102	44	78
Leveling device .....	R. H. Lee .....	392,209	Nov. 6	44	12	45	603
Leveling-instrument .....	A. T. Binkerd .....	393,879	Dec. 4	218	58	45	1113
Leveling-instrument .....	W. C. Holmes .....	381,243	Apr. 17	1431	384	43	293
Leveling-instrument .....	A. Kegel .....	386,924	July 31	2377	624 625	44	493
Lever. Compensating spring .....	R. Clarke .....	384,610	June 19	1153	305	43	1355
Lever. Draft .....	F. R. Webster .....	386,946	July 31	2492	632	44	498
Lever hook. Cable .....	M. E. Pugh .....	379,721	Mar. 20	1264	337	42	1222



## Alphabetical list of inventions--Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Lever power engine.....	E. T. Wheel.....	378,155	Feb. 21	1222	319	42	751
Lever. Quaternary yielding.....	T. J. Mayall.....	382,267	May 1	571	144	43	618
Levers. Device for operating a set of.....	H. D. Ganse.....	382,298	May 8	628	160	43	639
Levers. Device for operating a set of.....	H. D. Ganse.....	386,776	July 24	2117	556	44	436
Levers. Device for operating a set of.....	H. D. Ganse.....	390,768	Oct. 9	794	211	45	164
Levers. Device for operating a set of.....	H. D. Ganse.....	390,769	Oct. 9	799	212	45	165
Library-check system.....	A. V. Abererombje.....	393,806	Dec. 4	101	28	45	1092
Life-boat.....	J. A. Aniello.....	376,935	Jan. 24	1763	463	42	359
Life-boat.....	H. T. Wright.....	389,915	Sept. 25	1708	432	44	1421
Life-boat deck-seat.....	G. Hughes.....	388,875	Sept. 4	105	28	44	1092
Life-buoy. Reol.....	A. Rust.....	385,323	June 26	2235	572	43	1577
Life-buoys. Means for detaching and controlling.....	T. L. Reed.....	393,122	Nov. 20	1380	360	45	876
Life-float.....	H. H. Williams.....	378,993	Mar. 6	193	53	42	1003
Life-line projectiles. Hood for.....	S. Ingorsoll.....	394,926	Dec. 18	1866	482	45	1450
Life-preserver.....	S. Pemberton.....	390,803	Oct. 9	842	224	45	173
Life-preserver or buoy.....	F. Gregson.....	388,667	Aug. 28	2246	602	44	1024
Life-preserver rack and alarm.....	J. MacFarlane.....	391,376	Oct. 16	1680	444	45	337
Life-preserving chair.....	J. A. Ashworth.....	382,935	May 15	1559	408	43	830
Life-saving buoy-boat.....	J. Sample.....	385,961	July 10	927	245	44	189
Life-saving device.....	E. D. Moore.....	384,923	June 19	1615	420	43	1444
Life-saving garment.....	G. A. Hiller.....	382,306	May 8	639	163	43	641
Lifter:							
See Hide-lifter. Track-lifter.							
Household lifter. Transom-lifter.							
Pie-plate lifter. Wagon and carriage lifter.							
Plate or dish lifter.							
Lifting and lowering jack.....	L. J. Crecelius.....	383,710	May 29	2730	720	43	1074
Lifting-jack.....	A. W. Anderson.....	386,864	July 31	2286	601	44	476
Lifting-jack.....	J. Baldwin.....	386,954	July 31	2414	634	44	501
Lifting-jack.....	N. Beauregard.....	390,834	Oct. 9	891	236	45	182
Lifting-jack.....	W. N. Best.....	384,417	June 12	865	225	43	1293
Lifting-jack.....	C. E. Bradley.....	388,176	Aug. 21	1525	406	44	878
Lifting-jack.....	H. H. Clever.....	393,358	Nov. 27	1728	457	45	954
Lifting-jack.....	L. J. Crecelius.....	383,709	May 29	2728	720	43	1073
Lifting-jack.....	L. J. Crecelius.....	391,691	Oct. 23	2100	569	45	432
Lifting-jack.....	L. J. Crecelius.....	391,692	Oct. 23	2102	569	45	432
Lifting-jack.....	W. Dixon.....	389,742	Sept. 18	1441	377	44	1360
Lifting-jack.....	E. Foust.....	386,533	July 24	1784	471	44	373
Lifting-jack.....	R. M. Fraley.....	382,964	May 15	1601	418	43	838
Lifting-jack.....	M. Hedges.....	383,293	May 22	2115	558	43	946
Lifting-jack.....	A. Hickman.....	386,201	July 17	1267	339	44	263
Lifting-jack.....	L. B. Hoyt.....	390,671	Oct. 9	656	176	45	139
Lifting-jack.....	T. Maxon.....	395,161	Dec. 25	2236	575	45	1529
Lifting-jack.....	L. E. and P. Murphy.....	391,382	Oct. 16	1687	446	45	338
Lifting-jack.....	W. O. Nease.....	393,385	Nov. 27	1768	468	45	962
Lifting-jack.....	B. F. Nelson.....	388,067	Aug. 21	1324	358	44	843
Lifting-jack.....	J. S. Orr.....	381,060	June 5	336	95	43	1184
Lifting-jack.....	G. S. Rickard.....	375,769	Jan. 3	66	20	42	17
Lifting-jack.....	S. Z. Schwenk.....	382,194	May 1	460	119	43	598
Lifting-jack.....	F. H. Sleeper.....	379,294	Mar. 13	627	171	42	1091
Lifting-jack.....	J. M. Smith.....	393,930	Dec. 4	289	78	45	1127
Lifting-jack.....	A. L. Stanford.....	389,861	Sept. 18	1622	428	44	1396
Lifting-jack.....	A. A. Strom.....	385,885	July 10	835	220	44	170
Lifting-jack.....	A. A. Strom.....	386,791	July 24	2140	562	44	440
Lifting-jack.....	A. A. Strom.....	388,156	Aug. 21	1497	398	44	873
Lifting-jack.....	A. A. Strom.....	390,813	Oct. 9	856	227	45	175
Lifting-jack.....	A. A. Strom.....	394,308	Dec. 11	857	227	45	1244
Lifting-jack.....	C. F. Swellie.....	393,527	Nov. 27	1988	519	45	1006
Lifting-jack.....	W. Tucker.....	388,090	Aug. 21	1363	368	44	850
Lifting-jack.....	J. Weathers.....	383,029	May 15	1710	444	43	859
Lifting-jack. Carriage.....	D. Simmons.....	377,784	Feb. 14	684	173	42	641
Light:							
See Are light. Magnesium light.							
Carriage-curtain light. Pavement-light.							
Head-light. Pavement and floor light.							
Vault-light.							
Light-extinguisher.....	C. Stowe.....	393,933	Dec. 4	292	79	45	1128
Lighting by secondary batteries. Train.....	W. W. Griscom.....	393,757	Dec. 4	35	11	45	1979
Lighting. System of incandescence.....	C. Heisler.....	392,513	Nov. 6	493	124	45	688
Lightning-arrester.....	P. O. Keilholtz.....	384,042	June 5	301	85	43	1178
Lightning-arrester for electric circuits.....	F. A. Cheney.....	387,051	July 31	2543	669	44	526
Lightning flash-signal.....	S. Hawkridge.....	390,123	Sept. 25	2013	537	44	1482
Lightning-rod.....	S. R. Lawshe.....	375,756	Jan. 3	50	15	42	13
Lightning-rod. Metallic crest-tile.....	C. B. Nelson.....	384,384	June 12	821	213	43	1284
Lime-rat agitator.....	A. A. Myers.....	386,488	July 24	1706	451	44	359
Limekiln.....	R. H. Burns.....	394,151	Dec. 11	610	163	45	1197
Limekiln.....	O. Cook.....	390,208	Oct. 2	21	6	45	7
Limekiln.....	J. W. Devling.....	384,895	June 19	1578	411	43	1437
Limekiln.....	M. Sayre.....	375,896	Jan. 3	224	61	42	48
Limekiln.....	M. Sayre.....	375,897	Jan. 3	225	61, 62	42	48
Limekiln.....	E. Solvay.....	386,665	July 24	1962	518	44	408
Limekiln.....	J. H. Wallstrom.....	380,706	Apr. 10	604	166	43	130
Line-holder.....	J. V. Beavers.....	377,367	Feb. 7	2	1	42	495
Line-holder.....	A. Rambieur.....	390,518	Oct. 2	453	117	45	92
Line-holder for bricklayers.....	J. C. A. Vogel song.....	391,496	Oct. 23	1846	494	45	379
Line-protector.....	F. C. York.....	381,458	Apr. 17	1747	467	43	356

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Lines. Device for obtaining vertical.	J. Beyerle	375,795	Jan. 3	98	29	42	23
Lines or reins. Attachment for driving	C. J. King	391,323	Oct. 16	1603	424	45	323
Link. Cold shut or open	A. Sanford	387,110	July 31	2631	692	44	542
Link-making machine.	G. H. Howe	395,143	Dec. 25	2201	{ 565 566 }	45	1523
Liniment.	A. E. Banks	377,979	Feb. 14	964		42	696
Linoleum floor-cloths. Manufacturing	C. E. Lucas	386,926	July 31	2378	625	44	493
Lint collecting and compacting apparatus.	J. W. Shell	382,775	May 15	1348	354	43	787
Liquid-forcing apparatus	H. B. Lytle	382,236	May 1	522	134	43	609
Liquid-fuel burner	C. J. Edmonds	388,649	Aug. 28	2216	595	44	1019
Liquid-fuel burner	C. J. Edmonds	388,650	Aug. 28	2219	596	44	1019
Liquid-heater	J. C. McNamee	384,265	June 12	638	171	43	1252
Liquid in exchange for a coin. Apparatus for the delivery of a given quantity of	H. Stollwerck	389,909	Sept. 25	1696	{ 448 449 }	44	1418
Liquid-level indicator. Magneto-electric	J. J. Gbegan	384,200	June 5	535	146	43	1224
Liquid-meter.	G. Teideman	390,918	Oct. 9	1007	{ 263 264 265 }	45	203
Liquid-mixer	H. H. Fulton and W. F. Cornelius	387,634	Aug. 14	667	173	44	707
Liquid purification.	W. Oliphant	384,539	June 12	1047	{ 273 274 }	43	1327
Liquid purification. Apparatus for.	W. Oliphant	390,512	Oct. 2	445	116	45	90
Liquid-receptacles. Distributing-tip for.	W. H. Underwood	378,742	Feb. 28	2074	547	42	924
Liquid-reservoirs. Float and level-indicator for.	W. E. Eastman	381,541	Apr. 24	1878	496	43	400
Liquid-separator. Centrifugal	C. D. Shepard	379,133	Mar. 6	391	111	42	1039
Liquid-separator. Centrifugal	C. D. Shepard	379,134	Mar. 6	393	111	42	1040
Liquid-separator. Centrifugal	C. D. Shepard	390,711	Oct. 9	714	189	45	150
Liquid-vaporizing apparatus.	J. M. Krieser	384,768	June 19	1383	362	43	1401
Liquids. Apparatus for concentrating	J. W. Dixon	391,458	Oct. 23	1794	{ 479 480 }	45	367
Liquids. Apparatus for cooling	C. C. Hanford	382,156	May 1	407	106	43	588
Liquids. Apparatus for spraying	F. F. Bourdil	384,366	June 12	697	186	43	1263
Liquids at given temperatures. Device for testing the physical condition of	G. H. Perkins	383,980	June 5	206	60, 61	43	1160
Liquids. Concentrating	J. W. Dixon	391,459	Oct. 23	1796	{ 480 481 }	45	368
Liquids in vacuum pans. Treating	P. Casamajor	378,230	Feb. 21	1342	355	42	775
Liquids. Indicator for non-transparent receptacles containing	F. H. Palmer	377,533	Feb. 7	278	71	42	548
Liquids. Machine for agitating	H. Carpenter	392,987	Nov. 20	1203	313	45	841
Liquids. Machine for agitating	J. F. Mains	377,315	Jan. 31	2306	670	42	471
Liquids. Receptacle for containing	D. Hallock	392,329	Nov. 6	223	57	45	637
Liquors. Aging	W. L. Horne	386,748	July 24	2076	546	44	428
Lithographic presses. Inking apparatus for	F. Macdonald	381,708	Apr. 24	2113	553	43	447
Lithographic stones. Transferring phototypes to	O. Krebs	383,308	May 22	2136		43	950
Lithographic surfaces. Preparing	E. O. Schmiel	376,554	Jan. 17	1172		42	239
Lithographic surfaces. Producing	H. Schoembs	379,731	Mar. 20	1277		42	1224
Load-elevator	J. Lane and N. McPherson	390,787	Oct. 9	821	219	45	169
Load-indicator. Vehicle	J. Howard	388,874	Sept. 4	104	27	44	1092
Lobster-fishing trap	A. Flick	390,218	Oct. 2	39	10	45	10
Lobster-trap	O. Thomas	392,296	Nov. 6	170	44	45	626
Lock:							
See Alarm-lock.	Hoisting-tackle lock.						
Bag-lock.	Knob-lock.						
Bag or satchel frame	Lathe head-stock lock.						
lock.	Mail-bag lock.						
Bedstead-slat lock.	Master-key lock.						
Bicycle-lock.	Navigation-lock.						
Bolt-lock.	Nut-lock.						
Book-lock.	Oar-lock.						
Brake-lock.	Permutation-lock.						
Canal-lock.	Railway-switch lock.						
Carriage-door lock.	Railway-switch - stand						
Coat or hat lock.	lock.						
Coin-operated lock.	Safe-lock.						
Combination-lock.	Safe or vault door lock.						
Door-lock.	Sash-lock.						
Electric lock.	Seal-lock.						
Electrically-operative lock.	Switch-lock.						
Elevator-lock.	Time-lock.						
Elevator-safety-lock.	Turret-lock.						
Fetter-lock.	Vehicle-seat lock.						
Fire-arm lock.	Wagon-lock.						
Hasp-lock.	Whip and robe lock.						
Lock.	E. G. Asmus	389,492	Sept. 11	1046	279	44	1278
Lock.	J. Bergman	389,355	Sept. 11	842	215	44	1241
Lock.	G. B. M. Foust	383,638	May 29	2626	695	43	1051
Lock.	E. F. Goodwin	383,522	May 29	2471	652	43	1018
Lock.	J. Hartness	384,441	June 12	895	234	43	1300
Lock.	V. Jeannot	378,593	Feb. 28	1871	495	42	886
Lock.	J. Paillet	380,455	Apr. 3	221	61	43	45
Lock.	J. Roche	392,136	Oct. 30	2781	755	45	576
Lock.	E. C. Smith	387,372	Aug. 7	266	67	44	623
Lock.	G. G. Smith	386,501	July 24	1721	455	44	362
Lock.	W. E. Sparks	390,915	Oct. 9	1003	263	45	203
Lock.	L. K. Strang	392,646	Nov. 13	694	174	45	733
Lock.	W. H. Taylor	378,267	Feb. 21	1393	365	42	7-3
Lock.	W. H. Taylor	378,268	Feb. 21	1394	366	42	783
Lock.	W. H. Taylor	380,537	Apr. 3	349	100	43	72
Lock.	W. H. Taylor	381,293	Apr. 17	1492	{ 402 403 }	43	307
Lock.	W. H. Taylor	391,826	Oct. 20	2313	627	45	494
Lock.	C. R. Uhlmann	386,511	July 24	1747	462	44	367

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Lock.....	H. Van Hoevenbergh.....	387,833	Aug. 14	954	{ 247 248 }	44	763
Lock.....	E. S. Winchester.....	384,108	June 5	385	108	43	1194
Lock and latch.....	J. Cocks.....	390,205	Oct. 2	13	4	45	6
Lock-brake for vehicles.....	W. R. Wilcox.....	393,949	Dec. 4	312	85	45	1132
Lock for bags or satchels.....	A. Peterson.....	382,728	May 15	1283	336	43	774
Lock for sliding doors.....	J. M. Tunis and W. F. Bedford.....	389,345	Sept. 11	830	212	44	1238
Lock-nut.....	D. H. Allen and M. Loree.....	394,948	Dec. 23	1895	491	45	1465
Lock-spindles. Making.....	A. C. Rex.....	376,014	Jan. 3	401	106	42	80
Lock-strike.....	J. H. and T. D. Morris.....	380,266	Mar. 27	2077	556	42	1390
Locket.....	J. Cohn.....	384,426	June 12	877	228	43	1296
Locomotive.....	J. Blasdale.....	380,168	Mar. 27	1944	519	42	1363
Locomotive.....	W. L. Sykes.....	387,266	Aug. 7	97	24	44	591
Locomotive.....	L. S. Woodbury.....	383,790	May 29	2868	754	43	1098
Locomotive ash-pan.....	P. J. Brown.....	377,600	Feb. 7	376	95	42	567
Locomotive-boiler.....	M. G. Fuller.....	3-7,780	Aug. 14	875	225	44	747
Locomotive-boiler.....	C. S. Smith.....	393,790	Dec. 4	80	22	45	1088
Locomotive-boiler.....	G. S. Strong.....	385,968	July 10	933	247	44	191
Locomotive-brake.....	E. Beals. (Reissue.).....	10,894	Jan. 17	1445	380	42	292
Locomotive-brake.....	A. P. Massey.....	386,148	July 17	1203	320	44	251
Locomotive-brake.....	A. P. Massey.....	391,755	Oct. 23	2190	591	45	450
Locomotive-brake.....	H. A. Wahlert.....	392,242	Nov. 6	94	23	45	612
Locomotive-compler.....	A. P. Massey.....	387,725	Aug. 14	806	208	44	733
Locomotive draw-bar.....	J. Elder.....	391,233	Oct. 16	1481	393	45	300
Locomotive draw-bar.....	H. W. Lounsbery.....	386,888	July 31	2319	610	44	482
Locomotive. Electric.....	E. M. Bentley.....	377,229	Jan. 31	2179	575	42	448
Locomotive. Electric.....	S. D. Field.....	380,880	Apr. 10	871	234	43	179
Locomotive. Electric.....	S. H. Short.....	394,887	Dec. 18	1789	464	45	1436
Locomotive-engines. Whistle-recorder for.....	C. L. Houghton and W. I. Fox.....	376,525	Jan. 17	1135	297	42	232
Locomotive exhaust apparatus.....	J. Y. Smith.....	378,340	Feb. 21	1501	392	42	804
Locomotive feed-pipes. Cleaning strainers of.....	J. M. Wallis.....	387,668	Aug. 14	713	183	44	717
Locomotive fire-box.....	C. W. Hullings.....	386,431	July 17	1619	425	44	334
Locomotive journal-box.....	E. Meseke.....	394,988	Dec. 25	1963	506	45	1478
Locomotive pilot.....	W. G. Harrison.....	375,747	Jan. 3	41	12	42	11
Locomotive smoke-condnit.....	B. T. Loomis.....	378,014	Feb. 14	1013	264	42	705
Locomotive smoke-stack.....	P. J. Brown.....	378,762	Feb. 28	2105	556	42	929
Locomotive-spring.....	D. Broadhurst.....	380,548	Apr. 3	368	105	43	75
Locomotive-tender.....	A. Mallet and F. B. Behr.....	389,232	Sept. 11	662	{ 169 170 }	44	1206
Locomotives. Apparatus for applying sand to the driving-wheels of.....	J. Gresham.....	381,837	Apr. 24	2305	600	43	483
Locomotives. Clutch mechanism for the driving-shafts of.....	A. Matthes.....	394,194	Dec. 11	672	180	45	1208
Locomotives. Exhaust-nozzle extension for.....	J. T. Lee.....	392,350	Nov. 6	259	66	45	643
Locomotor. Electric.....	S. D. Field.....	380,879	Apr. 10	865	{ 233 234 }	43	178
Log-canting device.....	W. D. Link.....	379,403	Mar. 13	780	210	42	1119
Log-rolling device.....	L. T. Kline.....	377,717	Feb. 7	549	140	42	598
Log-turner.....	W. P. Sherman.....	386,853	July 31	2267	507	41	472
Log turner and loader.....	W. A. Dnrrin.....	389,743	Sept. 18	1441	377	44	1360
Log-turner. Steam.....	J. Torrent.....	379,086	Mar. 6	329	95	42	1027
Logs. Machine for shaving off the bark from.....	N. H. Brokaw.....	379,559	Mar. 20	1018	272	42	1174
Logs. Machinery for cutting.....	J. J. Hayes.....	384,763	June 19	1377	361	43	1400
Loom.....	H. Eastwood.....	377,425	Feb. 7	121	26	42	517
Loom.....	R. L. Hattersley and J. Hill.....	383,465	May 29	2374	{ 631 632 633 }	43	1000
Loom.....	F. Kesselring.....	376,312	Jan. 10	826	{ 218 219 }	42	168
Loom.....	J. A. Mattern.....	379,481	Mar. 13	900	243	42	1143
Loom.....	H. Talks.....	388,463	Aug. 28	1957	{ 524 525 458 }	44	969
Loom.....	S. T. and W. S. Thomas.....	386,506	July 24	1736	{ 459 460 461 }	44	365
Loom.....	W. Wattie.....	392,383	Nov. 6	305	77	45	653
Loom-dobby.....	W. Williamson.....	386,731	July 24	2047	539	44	423
Loom driving-gear.....	H. Wyman.....	381,518	Apr. 17	1839	486	43	375
Loom for cross-weaving.....	C. A. Littlefield.....	380,760	Apr. 10	692	{ 190 191 }	43	147
Loom for cross-weaving.....	C. A. Littlefield.....	380,761	Apr. 10	693	{ 191 192 }	43	147
Loom for cross-weaving.....	C. A. Littlefield.....	386,477	July 24	1693	{ 446 447 }	44	357
Loom for the manufacture of tufted pile fabrics.....	E. Buckley.....	393,458	Nov. 27	1872	493	45	982
Loom for weaving leno fabrics.....	H. and C. Topham.....	383,838	May 29	2942	778	43	1112
Loom for weaving loom-harness.....	F. Eckermann.....	383,215	May 22	1994	523	43	925
Loom for weaving pockets, &c.....	J. T. Meats.....	379,484	Mar. 13	904	244	42	1144
Loom. Hand.....	C. D. Estes.....	394,916	Dec. 18	1852	479	45	1447
Loom. Hand.....	J. Fichtner.....	392,859	Nov. 13	1011	259	45	798
Loom-harness. Machine for making.....	T. A. Emmons.....	383,716	May 29	2743	{ 722 723 724 }	43	1076
Loom let-off mechanism.....	S. M. Hamblin.....	390,962	Oct. 9	1071	283	45	216
Loom let-off mechanism.....	S. M. Hamblin.....	392,512	Nov. 6	492	123	45	688
Loom let-off mechanism.....	W. J. Hulford.....	379,311	Mar. 13	652	177	42	1095
Loom let-off mechanism.....	G. F. Hutchins.....	381,787	Apr. 24	2218	581	43	467
Loom let-off mechanism.....	H. Litchfield.....	379,173	Mar. 6	439	124	42	1050
Loom let-off mechanism.....	J. Morton.....	385,279	June 26	2163	{ 552 553 }	43	1565
Loom let-off mechanism.....	J. Morton.....	388,215	Aug. 21	1578	{ 420 421 }	44	889
Loom let-off mechanism.....	F. Ott.....	392,284	Nov. 6	157	41	45	623

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	De'g.	Vol.	Page.
Loom let-off mechanism	J. P. Thompson	376,353	Jan. 10	886	232	42	179
Loom let-off mechanism	S. Watson	377,654	Feb. 7	459	118	42	582
Loom. Needle	A. L. Skinner	383,079	May 15	1793	463	43	875
Loom. Needle	J. N. Stearns	377,535	Feb. 7	280	71, 72	42	549
Loom. Needle	J. N. Stearns	377,536	Feb. 7	284	72	42	549
Loom-picker	L. A. Carver	386,688	July 24	1990	526	44	413
Loom picker-check	W. Driver	382,640	May 8	1156	298	43	740
Loom picker-staff check	B. F. Carter	384,508	June 12	1004	262	43	1319
Loom picker-staffs. Loop for	F. H. Côté and C. T. Charland	389,060	Sept. 4	371	97	44	1143
Loom picker-stick	S. M. Hamblin	382,645	May 8	1163	299	43	742
Loom picking-mechanism	S. and S. M. Hamblin	384,622	June 19	1175	310	43	1360
Loom pile-wire	G. Segsneider	383,545	May 29	2508	662	43	1025
Loom shedding mechanism	R. B. Goodyear	393,067	Nov. 20	1307	340	45	862
Loom shedding mechanism	G. F. Hutchins	380,118	Mar. 27	1881	500	42	1350
Loom shedding mechanism	G. W. Stafford and S. D. Barrett	388,318	Aug. 21	1741	465, 466	44	922
Loom shedding mechanism	H. Wyman	385,691	July 3	536	139	44	106
Loom-shuttle	H. Bardsley	393,958	Dec. 4	328	69	45	1135
Loom-shuttle	E. Defoe	392,994	Nov. 20	1213	215	45	843
Loom-shuttle	S. A. Dudley	394,963	Dec. 25	1922	497	45	1470
Loom-shuttle	S. S. Edwards	394,915	Dec. 18	1851	479	45	1447
Loom-shuttle	L. W. Fildel	386,531	July 24	1780	471	44	372
Loom-shuttle	G. C. Mills	378,695	Mar. 6	53	15	42	977
Loom-shuttle	J. C. Sergeson	383,774	May 29	2842	747	43	1093
Loom shuttle-binder	H. Bardsley	385,338	July 3	3	1	44	3
Loom shuttle-box	H. Wyman	381,519	Apr. 17	1840	487	43	375
Loom shuttle-box mechanism	W. Wattie	390,419	Oct. 2	310	82	45	66
Loom shuttle-guard	G. B. McCracken	390,498	Oct. 2	428	111	45	87
Loom shuttle-motion	L. E. Ross	383,077	May 15	1791	463	43	874
Loom-shuttle relief-mechanism	Z. T. McKinney	382,995	May 15	1647	431	43	846
Loom-shuttle. Self-threading	J. B. Dandelin	388,539	Aug. 28	2058	554	44	989
Loom-shuttle. Self-threading	J. B. Dandelin	388,540	Aug. 28	2059	554	44	989
Loom-shuttle spindle	J. M. Cheney	394,458	Dec. 11	1069	278	45	1284
Loom-shuttle-threading device	F. Grubinski	386,816	July 31	2207	581	44	461
Loom-shuttles. Thread-guide for	T. J. Mayall	381,402	Apr. 17	1657	443	43	340
Loom stop-motion	J. P. Tilton and W. Scott	394,893	Dec. 18	1796	466	45	1438
Loom-stopping mechanism	H. Wyman	383,163	May 22	1920	502	43	909
Loom take-up mechanism	F. A. Arbenz	388,615	Aug. 28	2171	584	44	1011
Loom take-up mechanism	G. F. Hutchins	380,117	Mar. 27	1879	500	42	1349
Loom take-up mechanism	W. M. Larned	389,846	Sept. 18	1578	418, 419	44	1388
Loom take-up mechanism	J. and J. Nightingale	391,812	Oct. 30	2290	621, 622	45	479
Loom take-up mechanism	W. P. Uhlinger	390,630	Oct. 2	596	158, 159	45	120
Loom take-up mechanism	A. Wiertz and C. Hausmann	392,086	Oct. 30	2638	731	45	558
Loom-temple	B. D. Stevens	390,714	Oct. 9	719	189	45	151
Loom-temple	W. H. Taylor	379,917	Mar. 20	1582	416	42	1281
Loom-temple	W. H. Taylor	383,501	May 29	2437	647	43	1012
Loom-temple. Manufacturing rings for	E. S. Stimpson	388,155	Aug. 21	1496	398	44	873
Loom weft-stop mechanism	R. L. Hattersley and J. Hill	390,779	Oct. 9	811	215	45	167
Loom weft-stop-motion	L. J. Knowles	376,774	Jan. 24	1523	402	42	315
Loom weft-stop-motion	L. J. Knowles	376,775	Jan. 24	1530	403	42	316
Loom weft-stop-motion	L. J. Knowles	376,776	Jan. 24	1532	403	42	316
Loom weft-stop-motion	L. J. Knowles	376,777	Jan. 24	1534	404	42	316
Looms. Cutting attachment for double-pile-fabric	W. Wattie	393,947	Dec. 4	307	84	45	1131
Looms. Electric stopping mechanism for	J. Rush and E. Oldfield	384,934	June 19	1627	423	43	1447
Looms. Expanding pulley of shuttle-box motions for	H. Wyman	385,896	July 10	850	224	44	174
Looms for weaving double pile fabrics. Pile-warp guide and tension device for	F. L. Carnell	390,448	Oct. 2	351	92	45	74
Looms. Harness-depressing device for	G. W. Stafford and S. D. Barrett	388,319	Aug. 21	1744	466	44	923
Looms. Jacquard machine for	J. S. and S. Smith	390,714	Apr. 3	229	63	43	47
Looms. Jacquard mechanism for	H. Wyman	391,730	Oct. 23	2157	583	4	443
Looms. Lag for patten-chains of	K. Jowett	386,472	July 24	1629	445	44	356
Looms. Let-off motion for	J. J. Honan	394,184	Dec. 11	658	176, 177	45	1206
Looms. Mechanism for operating shuttle-boxes in	I. B. Goodyear	391,312	Oct. 16	1588	421	45	320
Looms. Picking sweep-strap connection for	E. H. J. Fielder	382,600	May 8	1103	283	43	730
Looms. Pile-cutting mechanism for double-pile-fabric	C. Pearson	394,606	Dec. 18	1316	344	45	1344
Looms. Pile-warp delivery mechanism for double-pile-fabric	F. Pearson	383,825	May 29	2923	772	43	1108
Looms. Positive shuttle-motion for	J. Maw	377,207	Jan. 31	2147	567	42	443
Looms. Shuttle and operating device therefor for narrow-ware	J. T. Cooke and J. L. Bottomley	387,863	Aug. 14	996	259, 260	44	779
Looms. Shuttle-binder for	E. Barsalou	388,243	Aug. 21	1613	432	44	898
Looms. Shuttle-changing mechanism for	J. C. Brooks	390,339	Oct. 2	194	52	45	42
Looms. Shuttle-holder attachment for	W. Wattie	380,736	Apr. 10	651	180	43	139
Looms. Tension device for the warp-beam of	C. Bailey	378,567	Feb. 28	1833	483	42	877
Looms. Weft-fork for	I. Jackson	387,788	Aug. 14	886	292	44	749
Looms. Weft-stop-motion for	W. Taylor and C. G. Saalfrank	393,935	Dec. 4	294	79	45	1128
Looms. Whip-roll for	D. Durkin	381,617	Apr. 24	1984	521	43	421
Looms. Whip-roll for	A. F. Parker	381,720	Apr. 24	2133	559	43	451
Looms. Whip-roll for	C. E. Scribner	388,453	Aug. 28	1942	520	44	967
Looms. Whip-roll for	T. Lamb and J. D. Morley	379,402	Mar. 13	779	210	42	1119
Looms. Whip-roll for	T. Tomlinson	390,534	Oct. 2	477		45	97
Looms. Whip-roll for	F. Ryan	386,163	July 17	1230	326	44	254
Looms. Whip-roll for	B. Rumpel	388,323	Aug. 21	1588	423	44	891
Looms. Whip-roll for	F. B. Hemingway	380,323	Apr. 3	24	7	43	7
Looms. Whip-roll for	A. G. Phillips	390,703	Oct. 9	701	186	45	147
Looms. Whip-roll for	J. Nolan	384,212	June 5	549	151	43	1228
Looms. Whip-roll for	T. Northe	389,240	Sept. 11	683	173	41	1209

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr g	Vol.	Page.
Lozenge-machine.....	O. R. Chase.....	376,068	Jan. 10	480	130	42	103
Lubricant.....	E. C. Leahy.....	376,961	Jan. 24	1795	.....	42	366
Lubricant-cup.....	J. S. Hall.....	376,952	Jan. 24	1785	469	42	361
Lubricating composition.....	D. L. McKittrick.....	378,331	Feb. 21	1487	.....	42	800
Lubricating device.....	A. J. Robinson.....	376,966	Jan. 24	1800	474	42	367
Lubricating device.....	E. Whiteley.....	392,479	Nov. 6	450	113	45	680
Lubricator:							
See Automatic lubricator.	Hydrostatic sight-feed lubricator.						
Axle-lubricator.	Pulley-lubricator.						
Bearing-lubricator.	Sight-feed lubricator.						
Lubricator.....	G. W. Amos.....	377,593	Feb. 7	358	92	42	564
Lubricator.....	W. Andersch.....	376,809	Jan. 24	1588	416	42	326
Lubricator.....	G. W. Brown.....	382,752	May 15	1313	345	43	780
Lubricator.....	G. W. Brown.....	391,834	Oct. 30	2325	630	45	486
Lubricator.....	W. A. Carey.....	385,040	June 26	1804	464	43	1491
Lubricator.....	M. P. Coleman.....	380,023	Mar. 27	1748	467	42	1323
Lubricator.....	W. M. Derby.....	376,432	Jan. 17	1002	262	42	207
Lubricator.....	W. H. Farrell.....	385,605	July 3	410	105	44	80
Lubricator.....	T. J. Hart.....	382,978	May 15	1623	424	43	842
Lubricator.....	H. N. Hewlett.....	377,253	Jan. 31	2215	585	42	455
Lubricator.....	H. N. Hewlett.....	377,254	Jan. 31	2216	586	42	455
Lubricator.....	J. R. Hodges and W. M. Davie.....	381,375	Apr. 17	1617	432	43	332
Lubricator.....	R. E. Lee.....	391,803	Oct. 30	2279	618	45	477
Lubricator.....	R. Marshall.....	381,804	Apr. 24	2243	587	43	472
Lubricator.....	R. Mason and J. M. Smith.....	384,051	June 5	312	89	43	1180
Lubricator.....	W. F. Mattes and J. F. Lewis.....	389,755	Sept. 18	1453	381	44	1363
Lubricator.....	E. McCoy.....	383,745	May 29	2782	733	43	1083
Lubricator.....	E. McCoy.....	383,746	May 29	2785	733	43	1083
Lubricator.....	T. B. McNiece.....	387,094	July 31	2609	626	44	538
Lubricator.....	J. Menze.....	394,497	Dec. 11	1120	291	45	1294
Lubricator.....	W. Millard.....	382,544	May 8	1014	250	43	712
Lubricator.....	W. P. Miller.....	390,890	Oct. 9	962	254	45	195
Lubricator.....	C. H. Parshall.....	376,676	Jan. 17	1367	359	42	275
Lubricator.....	J. Powell.....	379,243	Mar. 13	553	154	42	1076
Lubricator.....	C. Schaeffer and G. Oehlmann.....	395,179	Dec. 25	2264	580	45	1333
Lubricator.....	M. Schneider.....	381,586	Apr. 24	1936	510	43	412
Lubricator.....	C. L. Scoville.....	387,319	Aug. 7	184	48	44	606
Lubricator.....	E. Verry.....	382,915	May 15	1533	402	43	826
Lumber-drier.....	A. S. Nichols.....	390,697	Oct. 9	694	185	45	146
Lumber-gage. Pocket.....	J. P. Peterson.....	375,949	Jan. 3	302	81	42	62
Lumber-piler.....	P. O. Gustafson.....	392,727	Nov. 13	815	207	45	758
Lumber-trimmer.....	M. Garland.....	386,701	July 24	2007	530	44	416
Lumber-trimming and assorting machine.....	A. T. Linderman.....	378,796	Feb. 28	2148	563	42	938
Machine-gage.....	G. C. James.....	380,663	Apr. 10	576	158	43	125
Magnesium light.....	W. H. Fuller.....	386,875	July 31	2229	604	44	478
Magnet. Electro.....	F. A. Lane.....	393,337	Nov. 20	1693	447	45	939
Magnet for electrical apparatus. Permanent.....	W. Humans.....	375,749	Jan. 3	43	12, 13	42	12
Magnet. Polarized electro.....	E. J. Mallett.....	384,321	June 12	720	191	43	1267
Magnet. Relay.....	E. L. Orcutt.....	378,552	Feb. 28	1812	478	42	874
Magnetic separator.....	G. Conkling.....	383,863	June 5	20	7	43	1124
Magnetic separator.....	T. A. Edison.....	377,518	Feb. 7	261	66	42	544
Magnetic separator.....	M. H. Smith.....	383,918	June 5	109	32	43	1141
Magnetic separator.....	M. H. Smith.....	384,645	June 19	1202	318	43	1366
Magneto-electric machine.....	W. Humans.....	375,751	Jan. 3	45	13, 14	42	12
Magneto-electric machines. Armature for.....	W. Humans.....	375,750	Jan. 3	44	13	42	12
Magneto-generators. Automatic shunt for.....	C. E. Scribner.....	383,016	May 15	1695	440	43	856
Mail-bag.....	C. C. Cook.....	393,360	Nov. 27	1730	458	45	954
Mail-bag.....	E. F. Davis.....	379,939	Mar. 27	1617	430	42	1298
Mail-bag.....	J. E. Dennis, Jr.....	375,805	Jan. 3	111	32	42	26
Mail-bag catcher.....	J. H. Gollehon and W. P. Bonham.....	388,274	Aug. 21	1671	448	44	910
Mail-bag catcher.....	J. M. Keith.....	381,841	Apr. 24	2316	602	43	485
Mail-bag holder.....	C. W. Allen.....	380,543	Apr. 3	360	103	43	74
Mail-bag lock.....	J. C. Brown.....	380,986	Apr. 10	1041	275	43	211
Mail-bags. Cord-fastener and label-holder for.....	A. J. Gillespie.....	375,871	Jan. 3	188	52	42	41
Mail-conveying apparatus.....	A. D. Saunders.....	383,771	May 29	2838	746	43	1092
Mail-crane.....	E. Boyer and G. Gilmett.....	386,960	July 31	2425	637	44	503
Mail-crane.....	W. W. McCleary.....	376,781	Jan. 24	1539	405	42	317
Mail-grab.....	W. H. Jennings.....	392,339	Nov. 6	239	61	45	640
Mail-indicator. Post-office.....	W. Weber.....	393,870	Dec. 4	206	56	45	1111
Mail-matter and other packages. Fastening for.....	M. Toulmin.....	394,739	Dec. 18	1536	462	45	1388
Mail-matter. Machine for marking.....	M. V. B. Ethridge.....	378,391	Feb. 21	1567	410	42	817
Mail-pouch.....	G. J. Bedford.....	381,736	June 19	1339	349	43	1392
Mailing-machine.....	J. G. Hardie, Jr.....	378,309	Feb. 21	1456	380	42	794
Mainspring-winder.....	A. F. Robbins.....	394,507	Dec. 11	1135	294	45	1296
Mallet.....	N. B. Runnals.....	393,789	Dec. 4	79	22	45	1088
Mallet.....	C. A. Svensson.....	378,632	Feb. 28	1922	509	42	896
Malt growing and drying apparatus.....	M. A. Barber, A. Wiggin, and W. Soar.....	393,202	Nov. 20	1494	390	45	899
Malt-kiln.....	G. Reininghaus.....	385,137	June 26	1949	498	43	1521
Malt-kiln floor.....	W. Griesser.....	388,193	Aug. 21	1549	412	44	883
Malt liquors. Making.....	C. C. Hanford.....	382,155	May 1	406	106	43	588
Malt-mashing machine.....	T. Evans.....	384,568	June 12	1089	285	43	1336
Malt or grain. Apparatus for effecting the turning of.....	R. C. Sinclair and J. Hodson.....	379,136	Mar. 6	397	112	42	1040
Malt-powder. Making dietary.....	A. R. Leerbeck.....	390,229	Oct. 2	62	.....	45	16
Malt-turning apparatus.....	W. Griesser.....	394,965	Dec. 25	1926	497	45	1470
Malt-turning apparatus.....	P. Hauser, Sr., and R. H. Depew.....	386,467	July 24	1683	443	44	355

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Malt-turning apparatus.....	P. Hauser, Sr., and R. H. Depew.....	390,299	Oct. 2	136	39	45	31
Malting. Apparatus for.....	H. and J. Noth.....	394,601	Dec. 18	1305	342	45	1343
Malting-machine.....	H. and J. Noth.....	380,588	Apr. 3	425	121	43	87
Man-hole cover.....	W. Heiser.....	390,595	Oct. 2	555	147	45	112
Man-holes or catch-basins. Cover for.....	J. J. Burrows.....	386,768	July 24	2102	552	44	434
Manacle.....	F. A. Hyatt and E. D. Tankersley.....	380,441	Apr. 3	197	54	43	40
Mandrel. Expanding.....	J. Massett.....	389,480	Sept. 11	1033	275	44	1276
Mandrel. Roller.....	S. P. M. Tasker.....	382,016	May 1	197	51, 52	43	550
Mangle or ironing-machine.....	H. J. Skinner.....	389,256	Sept. 11	702	179	44	1213
Mangling-machine and extension-table. Combined.....	K. Clementsen.....	379,935	Mar. 27	1613	429	42	1278
Manifold.....	C. E. Mark.....	389,313	Sept. 11	789	200	44	12, 9
Manifold sheet.....	J. L. Wortman.....	376,764	Jan. 24	1505		42	311
Mantel.....	R. B. Thompson.....	389,340	Sept. 11	833	210	41	1237
Mantel. Water-heating.....	J. Friedlander.....	395,047	Dec. 25	2041	527	45	1413
Manure-distributor.....	M. P. Paris and H. A. Falls.....	375,807	Jan. 3	114	33	42	27
Manure-distributer.....	S. H. Garst.....	383,639	May 29	2626	615 696	43	1051
Manure-distributor.....	W. C. McTyeire.....	379,654	Mar. 20	1161	307	42	1200
Map.....	W. M. Bours.....	379,360	Mar. 13	718	195	42	1198
Map and chart support. Adjustable.....	W. H. Larew.....	383,818	May 29	2915	769	43	1107
Map-case.....	A. H. Hall.....	384,253	June 12	621	168	43	1250
Map or chart support. Adjustable.....	W. H. Larew.....	392,565	Nov. 6	567	143	45	704
Marble. Composition for artificial.....	L. Van den Steen.....	386,039	July 10	1035		44	211
Marine distress messenger-ball.....	W. B. Smith.....	393,187	Dec. 25	2276	584	45	1536
Marine messenger-ball. Flexible.....	W. B. Smith.....	395,188	Dec. 25	2278	584	45	1536
Marine signal.....	W. C. Spiegel.....	385,016	June 26	1764	456	43	1484
Marker. Land.....	A. C. Fell and B. F. Blair.....	379,455	Mar. 13	870	232	42	1135
Marking-gage.....	F. W. Lycett.....	379,117	Mar. 6	375	106	42	1036
Marking. Tablet for indelible-ink.....	W. A. Weed.....	394,896	Dec. 18	1807	468	45	1139
Mash-tub.....	G. A. Ohl.....	393,851	Dec. 4	173	46, 47	45	1104
Mash-tub.....	G. Tilgner and J. C. Wilcke.....	384,180	June 5	502	137	43	1218
Mashing-machine.....	M. Gottfried.....	377,451	Feb. 7	156	36	42	525
Mashing-machine.....	M. Gottfried.....	386,880	July 31	2306	606 607	44	479
Mask. Base-ball.....	G. Barnard.....	376,378	Jan. 10	781	207	42	160
Mask. Base-ball.....	D. J. O'Sullivan.....	379,655	Mar. 20	1162	307	42	1200
Mason's float-handle.....	E. M. Van Duzer.....	376,217	Jan. 10	701	167	42	144
Massage. Appliance for self.....	L. Schaffer.....	376,968	Jan. 24	1802	474	42	367
Mast. Hollow.....	J. W. Mansfield.....	377,490	Feb. 7	213	51	42	536
Mast-hoop.....	T. Clapham.....	387,767	Aug. 14	859	222	44	743
Mast-hoop.....	C. S. Mott.....	383,586	May 29	2554	675	43	1035
Mast-hoop.....	C. S. Mott.....	391,548	Oct. 23	1918	515	45	394
Master-key lock.....	W. E. Sparks.....	390,527	Oct. 2	464	120 121 122	45	94
Mat:							
See Cash-mat. Metal-bar mat.							
Door-mat. Metallic mat.							
Door or other mat. Rubber mat.							
Metal mat. Wire mat.							
Mat.....	R. Kelso.....	386,434	July 17	1622	426	44	335
Mat.....	E. R. Landon.....	387,978	Aug. 14	1183	321	44	807
Match-blocks. Machine for subdividing.....	F. Severio and J. D. Case.....	393,453	Nov. 27	1862	490	45	980
Match-box.....	H. Gass.....	388,354	Aug. 21	1789	478	44	932
Match-box.....	F. B. Smith.....	391,489	Oct. 23	1836	491	45	377
Match-boxes. Machine for sanding.....	C. H. Preston and H. W. Whalen.....	388,582	Aug. 28	2122	569	44	1001
Match for molding with gated patterns.....	J. Wachalac.....	378,634	Feb. 28	1924	510	42	896
Match-frame.....	G. W. Gates.....	383,721	May 29	2753	725	43	1077
Match-lighter. Attachable.....	A. B. Ullery.....	389,266	Sept. 11	716	182	44	1216
Match-machine.....	L. Kittinger.....	377,943	Feb. 14	914	236 237	42	686
Match-machine tray.....	L. Kittinger.....	378,010	Feb. 14	1007	263	42	703
Match magazine and lighter.....	J. S. Foley.....	390,407	Oct. 2	383	98	45	79
Match magazine and lighter.....	J. S. Foley.....	390,468	Oct. 2	385	98	45	79
Match-making machine.....	J. A. Banghman.....	389,950	Sept. 25	1751	463 464 251 252 253 254	44	1429
Match-making machine.....	E. B. Beecher.....	389,435	Sept. 11	961	255 256 257 258 259	44	1264
Match-making machine.....	K. Peukert.....	386,264	July 17	1383	364 365	44	284
Match press or frame.....	G. W. Gates.....	383,722	May 29	2754	725	43	1077
Match-safe.....	A. Cary.....	379,680	Mar. 20	1201	318	42	1248
Match-safe and cigar-clipper. Combined.....	E. L. Lake.....	394,495	Dec. 11	1118	290	45	1293
Match-sticks. Machine for cutting.....	W. H. H. Sisum.....	382,442	May 8	850	217	43	680
Matching-machine. Upright.....	S. A. Woods and J. R. Thomas.....	391,003	Oct. 9	1146	303	45	229
Matrices and casting-stereotypes. Apparatus for dry- ing.....	E. H. Cottrell.....	391,516	Oct. 23	1872	502 503	45	384
Matrices. Apparatus for fitting up.....	G. Mohr.....	378,799	Feb. 28	2169	576	42	942
Matrix-delivery mechanism.....	O. Mergenthaler.....	392,446	Nov. 6	403	100	45	670
Matting and making the same. Flag or rush.....	J. Bray, Jr.....	381,209	Apr. 17	1374	367	43	283
Mattress. Air.....	J. R. Hargin.....	388,037	Aug. 21	1280	346 347	44	834
Mattress. Air.....	G. H. and B. F. Snively.....	379,827	Mar. 20	1432	380	42	1254
Mattress. Sectional.....	N. Clement.....	380,713	Apr. 10	613	169	43	131
Mattress-stuffing machine.....	E. N. Stephenson.....	376,399	Jan. 10	941	247	42	189
Mattress. Tubular floating.....	C. J. Pigeon and L. J. T. Lacroix.....	381,813	Apr. 24	2256	549 590	43	474
Mattresses. Wire fabric for.....	F. Hainsworth.....	379,012	Mar. 6	922	60	42	1008



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Measure and protractor. Adjustable angle.....	W. Quayle.....	390,765	Oct. 9	704	187	45	118
Measure and tally. Grain.....	J. N. Holland.....	387,302	Aug. 7	159	42	44	601
Measure and tally. Grain.....	W. C. Watkins.....	393,046	Nov. 20	1283	{ 332 } { 333 }	{ 45 } { 45 }	858
Measure. Automatic grain.....	H. W. Cowan.....	379,209	Mar. 13	507	143	42	1068
Measure. Automatic grain.....	C. W. Hadley.....	377,936	Feb. 14	902	{ 231 } { 232 }	{ 42 } { 42 }	683
Measure. Automatic grain.....	T. D. Peasley.....	391,072	Oct. 16	1260	335	45	258
Measure for drafting garments.....	M. J. Garnier.....	390,291	Oct. 2	127	36	45	28
Measure for fitting gloves. Hand.....	A. E. McDonald.....	383,365	May 22	2213	587	43	964
Measure. Grain.....	F. H. Ehlers.....	381,350	Apr. 17	1584	424	41	325
Measure. Milk.....	C. L. Cristenson.....	376,293	Jan. 10	800	212	42	163
Measure. Rotary grain.....	J. E. Basenbarrick and G. F. Mitchell.....	376,367	Jan. 10	903	237	42	182
Measure. Tape.....	C. L. Bard.....	393,603	Nov. 27	2098	549	45	1028
Measures, fishing-lines, &c. Reel for tape.....	J. Roe.....	387,541	Aug. 7	520	134	44	672
Measurement apparatus. Electrical.....	H. V. Hayes.....	381,780	Apr. 21	2207	578	43	465
Measurement of the human form. Obtaining the.....	D. C. Christner.....	389,287	Sept. 11	755	{ 191 } { 192 }	{ 44 } { 44 }	1224
Measuring and cutting fabrics. Apparatus for.....	H. H. Dille and E. W. McGuire.....	376,642	Jan. 17	1322	347	42	267
Measuring and cutting fabrics. Machine for.....	H. H. Dille and E. W. McGuire.....	376,641	Jan. 17	1318	{ 346 } { 347 }	{ 42 } { 42 }	266
Measuring and registering device. Grain.....	F. H. Ehlers.....	386,695	July 24	1097	528	44	414
Measuring apparatus. Coin-released height.....	W. P. Ingham.....	379,071	Mar. 6	303	89	42	1023
Measuring apparatus. Electric resistance.....	C. E. Scribner.....	388,454	Aug. 28	1944	520	44	967
Measuring apparatus. Electrical.....	E. Weston.....	392,386	Nov. 6	308	78	45	653
Measuring apparatus. Electrical.....	E. Weston.....	392,387	Nov. 6	313	78, 79	45	654
Measuring apparatus. Fabric.....	J. W. Kruger.....	381,842	Apr. 24	2317	602	43	485
Measuring apparatus. Grain.....	A. J. Simpson.....	377,273	Jan. 31	2252	595	42	461
Measuring-bagger.....	J. H. Forsyth.....	381,122	Apr. 17	1264	338	43	263
Measuring bottle. Medicine.....	E. A. P. Hennig.....	391,967	Oct. 30	2515	661	45	524
Measuring bottle or flask.....	J. R. Wherry and H. H. Rottaken.....	386,418	July 17	1604	421	44	331
Measuring device. Automatic water.....	W. Lammers.....	385,274	June 26	2158	551	43	1564
Measuring device for ice-cream and other similar substances.....	T. A. Naylor.....	384,776	June 19	1397	365	43	1404
Measuring device. Rope.....	L. J. Ross.....	382,193	May 1	459	119	43	598
Measuring distances. Instrument for.....	A. Oshorn.....	376,338	Jan. 10	866	227	42	175
Measuring electric currents. Instrument for.....	A. G. Waterhouse.....	393,088	Nov. 20	1354	348	45	867
Measuring electricity.....	G. Forbes.....	387,505	Aug. 7	456	120	44	662
Measuring-instrument. Electric.....	A. H. Eddy.....	391,392	Oct. 23	1974	532	45	406
Measuring-instrument. Electrical.....	V. H. Emerson.....	392,018	Oct. 30	2590	705	45	539
Measuring-instruments. Electroplated coil for electrical.....	E. Weston.....	392,385	Nov. 6	307	78	45	653
Measuring lines. Attachment for draftsman's compasses for.....	T. P. Owen.....	391,067	Oct. 16	1253	333	45	257
Measuring machine. Automatic grain.....	A. J. Grissom.....	380,718	Apr. 10	620	{ 170 } { 171 }	{ 43 } { 43 }	133
Measuring machine. Cloth.....	C. H. Young.....	386,050	July 10	1047	289	44	214
Measuring machine. Coin-controlled height.....	C. R. Williams.....	383,608	May 29	2577	683	43	1040
Measuring machine. Coin-released height.....	N. W. Hartwell.....	387,717	Aug. 14	795	204	44	731
Measuring machine. Grain.....	J. M. Lamb.....	379,231	Mar. 13	537	150	42	1073
Measuring machine. Grain.....	B. Parker.....	392,452	Nov. 6	411	102	45	671
Measuring machine. Land.....	E. Rebarbs.....	382,438	May 8	837	215	43	679
Measuring machine. Rattan.....	E. L. Taft and C. L. Jones.....	383,197	May 22	1965	{ 515 } { 516 }	{ 43 } { 43 }	918
Measuring-reel.....	E. M. Thomas.....	379,743	Mar. 20	1292	345	42	1227
Measuring, registering, and bagging machine. Grain.....	G. R. Kendrick.....	392,344	Nov. 6	247	63, 64	45	641
Measuring spout. Grain.....	J. B. McCutcheon.....	387,001	July 31	2482	651	44	515
Measuring-tank. Automatic.....	S. L. Baker.....	389,132	Sept. 4	496	127	44	1165
Measuring-tank for oil.....	M. J. Lindsay and D. M. Ross.....	384,986	June 26	1707	443	43	1471
Measuring the distance and height of objects. Instrument for.....	W. Farquharson. (Reissue).....	10,908	Mar. 13	1004	269	42	1163
Measuring the quantity of water flowing through a pipe. Apparatus for.....	C. Herschel.....	381,373	Apr. 17	1614	431	43	331
Measuring the thickness of lumber. Device for.....	G. E. Dupee.....	387,284	Aug. 7	119	32	44	595
Measuring-tool. Machinist's.....	H. Howard.....	386,469	July 24	1685	444	44	356
Measuring utensil.....	T. B. Farrington.....	382,870	May 15	1470	386	43	812
Measuring vertical and horizontal distances. Instrument for.....	J. Short.....	383,375	May 22	2224	590	43	966
Measuring-vessel.....	J. O. Boggs.....	377,369	Feb. 7	3	1	42	495
Measuring-vessel.....	W. Evans, Jr.....	385,303	June 26	2207	566	43	1572
Measuring-vessel.....	G. Hayes.....	388,677	Aug. 28	2260	606	44	1026
Meat-block.....	F. Schraudner.....	389,486	Sept. 11	1098	277	44	1277
Meat-block. Sectional.....	B. A. Stevens.....	381,654	Apr. 24	2035	533	43	431
Meat-cutter.....	P. and W. Deissler.....	383,713	May 29	2736	721	43	1075
Meat-cutter.....	R. V. Jones.....	391,322	Oct. 16	1602	424	45	323
Meat-cutter.....	T. Williams, Jr.....	388,940	Sept. 4	201	53	41	1111
Meat-cutting machine.....	G. O. Rinnman and J. Zimmerman.....	382,192	May 1	457	119	43	593
Meat-hook.....	J. W. Johnson.....	386,749	July 24	2077	547	44	429
Meat. Packing cured.....	J. Cunneen.....	392,949	Nov. 13	1131	294	45	821
Meat. Preserving.....	J. D. Reed.....	377,404	Feb. 7	55	15	42	506
Meat-tenderer.....	H. R. Vollmar.....	387,381	Aug. 7	275	70	44	624
Mechanical bird.....	W. Stanton.....	395,189	Dec. 25	2280	585	45	1536
Mechanical motion.....	S. Dyer and D. F. Graham.....	389,879	Sept. 25	1650	437	44	1408
Mechanical motion.....	S. Dyer and D. F. Graham.....	389,880	Sept. 25	1651	{ 437 } { 438 }	{ 44 } { 44 }	1409
Mechanical motion.....	S. Dyer and D. F. Graham.....	389,881	Sept. 25	1652	438	44	1409
Mechanical motion.....	W. H. Hloniss and W. A. Lorenz.....	386,392	Apr. 3	128	38, 39	41	27
Mechanical motor.....	S. A. Haines.....	382,525	May 8	979	247	43	705
Mechanical motor.....	P. Hockett.....	388,416	Aug. 28	1892	505	44	956
Mechanical motor.....	G. Willett.....	395,089	Dec. 25	2123	549	45	1510
Mechanical movement.....	A. L. Akins.....	377,509	Feb. 7	248	60	42	542
Mechanical movement.....	B. F. Andrews.....	379,499	Mar. 13	931	{ 250 } { 251 }	{ 42 } { 42 }	1149

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Mechanical movement	B. F. Andrews	385,084	June 26	1872	478	43	1505
Mechanical movement	C. C. Barton	388,390	Aug. 28	1859	496	44	949
Mechanical movement	G. Dunham	376,769	Jan. 24	1522	400	42	314
Mechanical movement	I. N. Elliott and P. A. Reid	379,775	Mar. 20	1338	357	42	1236
Mechanical movement	L. F. Goben	379,199	Mar. 6	476	135	42	1057
Mechanical movement	J. F. Hanley	376,303	Jan. 10	812	214 } 215 }	42	165
Mechanical movement	J. F. Hanley	392,332	Nov. 6	227	58	45	637
Mechanical movement	G. Henderson	389,509	Sept. 11	1068	283	44	1282
Mechanical movement	J. W. Hoffman	392,610	Nov. 13	645	161	45	724
Mechanical movement	A. W. Johnson	384,258	June 12	627	169	43	1251
Mechanical movement	M. B. Kellogg	383,577	May 29	2542	671	43	1032
Mechanical movement	J. W. Kincaid	390,976	Oct. 9	1103	291	45	921
Mechanical movement	W. Koch	379,479	Mar. 13	898	242	42	1143
Mechanical movement	D. M. Lester	394,585	Dec. 18	1283	336	45	1338
Mechanical movement	T. R. McKnight	382,101	May 1	338	89	43	575
Mechanical movement	H. Moehring and A. Pflüger	383,407	May 22	2281	606	42	976
Mechanical movement	H. Moehring and A. Pflüger	383,408	May 22	2283	606	43	976
Mechanical movement	L. H. Nash	378,847	Feb. 28	2251	599 } 600 }	42	957
Mechanical movement	W. A. Pitt	386,027	July 10	1017	270	44	207
Mechanical movement	B. Scarles	380,666	Apr. 3	543	149	43	109
Mechanical movement	G. Scheeck	370,697	Apr. 10	594	163	43	128
Mechanical movement	J. F. Schoeltes	385,377	July 3	56	16	44	13
Mechanical movement	A. Tétrault	392,238	Nov. 6	88	21, 22	45	611
Mechanical movement	A. Warth	390,926	Oct. 9	1020	269 } 270 }	45	206
Mechanical movement	J. Witt	382,785	May 15	1361	358	43	70
Mechanical movement. Electro-	R. H. Mather	377,684	Feb. 7	505	129 } 130 }	42	90
Mechanical movement. Electro-	J. F. McLaughlin	379,802	Mar. 20	1386	368	42	1243
Mechanical movements. Electrical apparatus for effecting	R. T. Smith	377,413	Feb. 7	105	21	42	514
Medallions, &c. Composition of matter to be used in the manufacture of	C. F. Broadbent	383,698	May 29	2709		43	1069
Medical apparatus. Electro-	P. Horst	382,811	May 15	1395	366	43	796
Medical apparatus. Electro-	J. S. Muir	386,754	July 24	2082	548	44	429
Medical apparatus. Electro-	T. R. Ten Broeck	377,872	Feb. 14	803	205	42	603
Medical compound	E. A. Baumann	391,875	Oct. 30	2382		45	498
Medical compound	B. Motea	387,313	Aug. 7	173		44	604
Medicated dust-balls. Device for snapping	J. B. Cleaveland	390,455	Oct. 2	339	93	45	75
Medicinal preparation	L. B. Weld	379,299	Mar. 13	635		42	1082
(Medicine.) Alternative remedy	G. M. Painter	380,343	Apr. 3	51		43	13
(Medicine.) Alternative tonic	F. Escovar	370,876	Apr. 10	862		43	177
Medicine-case	S. K. Lake	391,055	Oct. 16	1235	329	45	254
Medicine-case	W. H. Warren	389,621	Sept. 18	1249	327	44	1323
(Medicine.) Cough remedy	G. A. Patton	384,466	June 12	928		43	1306
Medicine-cup and stopper	J. B. v. Fürstenwäthler	377,483	Feb. 7	201	48	42	534
(Medicine.) Remedy for blood-poisoning	E. Tanner	389,422	Sept. 11	945		44	1260
(Medicine.) Remedy for scrofula	H. Helm	389,651	Sept. 18	1309		44	1333
Medicine to animals. Apparatus for administering	C. W. Collyer	383,440	May 29	2332	619	43	992
(Medicine.) Tonic. Alternative	I. Brown	391,776	Oct. 30	2221		45	406
Medicine-vessels. Indicator-stand for	H. C. Velie	387,192	July 31	2767	734	44	564
Mercury pressure-gage	F. T. Sutley	387,663	Aug. 14	706	181	44	715
Merry-go-round. Marine and land	J. R. Kennett	392,155	Oct. 30	2812	763	45	582
Message and time recorder	J. C. Wilson	392,838	Nov. 13	984	232	45	791
Metal and forming spiral conveyers. Machine for twisting	W. C. Marr	393,378	Nov. 27	1756	465 } 466 }	45	960
Metal articles. Machine for heating and hardening	H. White	383,030	May 15	1712	445 } 446 }	43	859
Metal-bar mat	W. C. Spelman	377,580	Feb. 7	341	88	42	561
Metal bars. Die for upsetting	W. R. Webster	380,413	Apr. 3	155	44	43	32
Metal bars. Machine for straightening, grinding, and polishing	J. Farmer	387,971	Aug. 14	1172	318 } 319 }	41	806
Metal bars. Machine for upsetting	W. Ross	394,011	Dec. 4	402	108	45	1148
Metal bars. Reticulated or open work of	T. Robinson	383,250	May 22	2044	537	43	934
Metal bars. Spreading the ends of rectangular	W. R. Webster	380,414	Apr. 3	157	44	43	33
Metal bending and stamping machine	G. A. Smith	390,264	Oct. 2	92	27	45	22
Metal-bending die	A. A. Strom	390,814	Oct. 9	858	228	45	176
Metal-crimping tool	S. Y. Buckman	391,227	Oct. 16	1473	391	45	299
Metal crossing. Cast	G. P. Graham	391,961	Oct. 30	2506	679	45	523
Metal-cutter	A. C. Irvine	384,694	June 19	1291	337	43	1382
Metal-cutting machine	O. C. Little	390,978	Oct. 9	1105	292	45	221
Metal-cutting tool. Feeding the support of a	F. W. Taylor	387,121	July 31	2649	697 } 698 }	44	546
Metal-cutting tools. Composition of matter applicable to	S. G. Montague	386,753	July 24	2081		44	429
Metal cylinders. Machine for shaping wrought-	F. J. Seymour	376,167	Jan. 10	631	169	42	132
Metal. Decorating	J. Baynes	378,420	Feb. 28	1616	425	42	833
Metal. Device for handling heavy masses of	L. F. Johnson	381,474	Apr. 17	1769	472	43	360
Metal dividing or splitting machine	J. C. Russell	376,914	Jan. 24	1734	456	42	354
Metal-flanging machine	J. Tetlow	387,665	Aug. 14	708	182	44	715
Metal frame. Ornamental	R. G. Boreham	377,231	Jan. 31	2180	575	42	449
Metal from one set of rolls to another. Apparatus for transferring	D. Evans and A. Harrison	391,361	Oct. 16	1655	437 } 438 }	45	332
Metal-galvanizing apparatus	R. Grey	385,616	July 3	430	110 } 111 }	44	84
Metal-hardening device	J. G. Folsom	385,347	July 3	12	4	44	5
Metal into and out of furnaces. Apparatus for moving bodies of	A. Harrison	395,135	Dec. 25	2187	563	45	1520
Metal joint for hangers, &c	J. B. Wallace	389,028	Sept. 4	324	86	44	1131
Metal. Machine for rolling melted	G. Brooke	379,096	Mar. 6	347	99	42	1031
Metal mat	M. H. Wilson and W. D. Thomas	378,912	Mar. 6	71	21	42	980
Metal mold	C. S. Bell	382,633	May 8	1147	295	43	739

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Metal mold.....	T. W. Vane.....	394,089	Dec. 4	518	139	45	1170
Metal. Ornamenting.....	J. Baynes.....	378,421	Feb. 28	1617	425	42	833
Metal. Ornamenting.....	G. Matthews.....	376,605	Jan. 17	1245	326	42	254
Metal plate for metal structures. U-shaped.....	E. de la Sauce.....	376,979	Jan. 24	1818	478	42	370
Metal plates. Interlocking the edges of.....	F. C. Bellinger.....	384,118	June 5	409	113	43	1199
Metal plates with tin and other metals. Coating.....	D. Edwards, R. Lewis, and P. Jones.....	381,226	Apr. 17	1396	{ 373 374 375 }	{ 43 }	288
Metal rods. Machine for reducing.....	H. A. Williams. (Reissue.).....	10,932	May 15	1825	477	43	880
Metal rods. Machine for reducing.....	H. A. Williams.....	388,938	Sept. 4	198	52	44	1110
Metal-sawing machine. Portable.....	C. W. Trowbridge.....	388,602	Aug. 28	2153	{ 577 578 }	{ 44 }	1007
Metal-shaping machine.....	E. A. Walker.....	379,142	Mar. 6	405	114	42	1042
Metal tube.....	J. Callan.....	388,824	Sept. 4	21	7	44	1076
Metal tube.....	H. W. Hayden.....	388,867	Sept. 4	95	25	44	1091
Metal turning and polishing tool.....	E. A. Howe.....	386,013	July 10	996	265	44	204
Metal. Varnishing.....	C. Harrop.....	392,029	Oct. 30	2604	.....	45	542
Metal wheel.....	T. S. Page.....	392,748	Nov. 13	842	214	45	763
Metal wheel.....	T. S. Page.....	392,749	Nov. 13	843	215	45	763
Metal wheel.....	A. A. Phillips.....	391,915	Oct. 30	2140	660	45	510
Metal wheel.....	G. Seymour.....	394,885	Dec. 18	1785	463	45	1436
Metal wheel.....	E. Sharbonneau.....	388,455	Aug. 28	1945	521	44	967
Metal wires and strips. Machine for tempering.....	F. Sedgwick.....	388,078	Aug. 21	1344	362	44	847
Metal with lead. Covering surfaces of.....	O. Elberling.....	395,269	Dec. 25	2404	.....	45	1560
Metal-working machine. Compound.....	E. S. Babcock.....	377,976	Feb. 14	960	250	42	695
Metals. Apparatus for decorating.....	J. Baynes.....	379,092	Mar. 6	342	98	42	1030
Metals. Apparatus for oxidizing the surface of.....	G. W. Gesner.....	376,874	Jan. 24	1660	459	42	343
Metals by electricity. Apparatus for working.....	N. Benardos.....	388,246	Aug. 21	1627	{ 435 436 }	{ 44 }	899
Metals by electricity. Working.....	N. Benardos.....	388,245	Aug. 21	1626	435	44	899
Metals by electricity. Working.....	N. De Benardos.....	379,453	Mar. 13	857	232	42	1135
Metals by means of electrolysis. Apparatus for producing.....	J. Ombolt.....	382,183	May 1	416	116	43	595
Metals. Composition of.....	H. Berglin.....	375,917	Jan. 3	254	.....	42	53
Metals. Flux to be used for the refining of.....	J. Webster.....	394,742	Dec. 18	1541	.....	45	1389
Metals from quartz or gangue. Separating.....	G. Sweeney.....	386,504	July 24	1735	457	44	365
Metals from rust. Manufacture of paste for polishing and protecting.....	S. Rosenfeld and J. Zeleny.....	385,776	July 10	665	.....	44	137
Metals from spiss. Obtaining the precious.....	L. W. Davies.....	384,682	June 19	1258	.....	43	1377
Metals from their ores. Separating.....	S. H. Cochran.....	378,868	Mar. 6	11	4	42	969
Metals. Machine for drawing.....	W. A. McCool.....	388,782	Aug. 28	2412	{ 650 651 }	{ 44 }	1055
Metals. Material for cleaning and polishing.....	J. Dean.....	389,552	Sept. 18	1142	.....	44	1304
Metals. Molding viscous.....	W. Burnham.....	383,039	May 15	1729	.....	43	863
Metals. Treatment of.....	W. A. Baldwin.....	379,438	Mar. 13	833	.....	42	1131
Metals. Treatment of.....	G. W. Gesner.....	379,666	Mar. 20	1511	398	42	1268
Metals with aluminum. Combining.....	W. A. Baldwin.....	378,278	Feb. 21	1413	.....	42	786
Metals with chemicals, minerals, &c. Hand-charger for combining.....	P. S. Reeves.....	384,075	June 5	346	98	43	1187
Metallic bands. Apparatus for reeling.....	J. N. Whitman.....	386,908	July 31	2352	618	44	488
Metallic blanks. Apparatus for tapering.....	C. Nobis.....	383,142	May 22	1893	494	43	904
Metallic bodies. Die for forming hollow ornamental.....	J. Burkhardt.....	378,413	Feb. 21	1605	421	42	824
Metallic fastener.....	J. Mandel and J. P. Henderson.....	389,660	Sept. 18	1320	345	44	1335
Metallic mat or floor-covering.....	W. O. Bement.....	377,478	Feb. 7	195	46	42	533
Metallic mold.....	P. F. Dillon.....	382,411	May 8	801	{ 204 205 }	{ 43 }	671
Metallic plate. Embossed.....	A. C. Hafely.....	378,442	Feb. 28	1657	.....	42	842
Metallic surface. Ornamented.....	F. Rhind.....	384,282	June 12	661	177	43	1257
Metallic surfaces. Decorating.....	J. Baynes.....	378,422	Feb. 28	1618	426	42	833
Metallic surfaces. Ornamenting.....	D. W. Parker and L. F. Griswold.....	382,661	May 8	1189	309	43	747
Metallic tube.....	L. F. Betts.....	390,553	Oct. 2	505	132	45	101
Metallic wheel.....	W. P. Bettendorf.....	386,572	July 24	1835	481	44	383
Metallic wheel.....	E. R. Kinney.....	390,682	Oct. 9	674	179	45	142
Metallic wheel.....	P. A. Nickerson.....	382,658	May 8	1185	306	43	746
Metallic wheel.....	J. W. Savene.....	377,579	Feb. 7	340	88	42	561
Metallic wheel.....	W. W. Smith.....	392,234	Nov. 6	84	20	45	610
Metallurgical furnace.....	T. McSweeney.....	391,980	Oct. 30	2535	686	45	528
Metallurgical furnace.....	W. J. Taylor.....	380,147	Mar. 27	1918	512	42	1357
Meter.....							
See Current-meter. Oscillating meter.							
Electric meter. Piston meter.							
Fluid-meter. Rotary liquid-meter.							
Gas-meter. Volt-meter.							
Grain-meter. Water-meter.							
Liquid-meter.							
Micrometer-gage.....	J. A. MacDonald.....	384,771	June 19	1390	363	43	1402
Microphone-transmitter.....	G. M. Phelps.....	380,925	Apr. 10	938	250	43	192
Middlings-purifier.....	W. J. Fender.....	379,155	Mar. 6	419	{ 118 119 }	{ 42 }	1045
Middlings-purifier.....	A. Heino.....	382,873	May 15	1474	387	43	813
Middlings-purifier.....	A. Hunter.....	393,981	Dec. 4	364	97	45	1141
Middlings-purifier.....	J. Huixtable.....	387,955	Aug. 14	1155	312	44	802
Middlings-purifier.....	V. Monnier.....	387,798	Aug. 14	898	{ 232 233 }	{ 44 }	752
Middlings-purifier.....	H. W. Stone, Jr.....	375,782	Jan. 3	83	25	42	20
Middlings-purifier.....	E. Weiss and L. Fraenkel.....	383,262	May 22	2072	544	43	939
Middlings-purifying machine.....	H. J. Livergood.....	389,091	Sept. 4	414	109	44	1151
Milk aerating and cooling apparatus.....	E. W. Coffin.....	379,051	Mar. 6	278	81	42	1018
Milk. Apparatus for condensing and carbonating.....	O. Von Roden.....	376,496	Jan. 17	1095	287	42	225
Milk-box.....	E. J. Colby.....	388,124	Aug. 21	1443	387	44	864
Milk-can.....	J. H. Bassler.....	386,231	July 17	1333	352	44	275
Milk-can.....	D. H. Fiehr.....	391,039	Oct. 16	1214	322	45	250
Milk-can.....	C. M. Holden.....	386,540	July 24	1792	473	44	374
Milk. Condensing and preserving.....	O. Von Roden.....	376,495	Jan. 17	1092	287	42	224

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Milk-cooler .....	J. T. and T. C. Hays .....	377,675	Feb. 7	488	126	42	587
Milk-gage .....	J. S. Elliott .....	379,692	Mar. 20	1223	325	42	1213
Milk. Machine for liquidizing condensed .....	G. Roth .....	383,915	June 5	105	31	43	1141
Milk-preserving machine .....	G. Roth .....	383,013	June 26	1760	455	43	1483
Milk-receiver .....	B. J. Cady .....	376,291	Jan. 10	798	211	42	163
Milking cows. Instrument for .....	J. Law .....	393,161	Nov. 20	1431	374	45	837
Mill:							
See Boring-mill. Grinding-mill.							
Cane-mill. Grinding and mixing mill.							
Cider-mill. Gunpowder-mill.							
Coffee-mill. Ink-mill.							
Condiment-mill. Paint-mill.							
Crushing-mill. Pug mill.							
Crushing and grind- Rod-mill.							
ing mill. Roller-mill.							
Fanning-mill. Rolling-mill.							
Feed-mill. Saw-mill.							
Mill appliance .....	H. Aiken .....	393,051	Nov. 20	1289	334	45	859
Mill-feed .....	G. Heller .....	381,371	Apr. 17	1612	431	43	331
Mills. Elevator and separator for .....	J. R. Beynon .....	394,813	Dec. 18	1661	434	45	1412
Mills, factories, &c. Apparatus for moistening the } atmosphere in	A. Koechlin .....	384,630	June 19	1185	{ 312 } { 313 }	43	1362
Milling and gear-cutting machines. Cutting-tool for .....	T. Eynon .....	392,597	Nov. 13	621	156	45	720
Milling connecting-rod boxes. Machine for .....	A. J. Noyes .....	392,164	Oct. 30	2825	766	45	584
Milling-machine .....	A. H. Brainard .....	378,427	Feb. 28	1630	428	42	835
Milling-machine .....	A. H. Brainard .....	381,108	Apr. 17	1244	334	43	259
Milling-machine .....	A. H. Brainard .....	381,525	Apr. 24	1854	{ 490 } { 491 }	43	396
Milling-machine .....	J. A. Gregg .....	390,164	Sept. 25	2074	553	44	1495
Milling-machine. Twist-drill .....	M. C. Johnson .....	391,619	Oct. 23	2009	543	45	413
Milling-tools. Machine for shaping .....	C. H. Trask .....	379,187	Mar. 6	453	{ 128 } { 129 }	42	1053
Millstone-dress .....	J. Bachulein .....	381,522	Apr. 24	1851	490	43	395
Millstone-dress .....	J. H. Brown .....	393,534	Nov. 27	2002	523	45	1009
Millstone-feeder .....	L. E. Kane .....	377,762	Feb. 14	621	160	42	626
Millstone or mill-plate dress .....	D. J. Ames .....	382,747	May 15	1308	344	43	779
Millstone-pick .....	Z. J. Drake .....	391,128	Oct. 16	1336	356	45	272
Miners' car checks or labels. Fastening for .....	H. Corrigan .....	385,407	July 3	105	29	44	23
Mines. Draining coal .....	G. Zitzmann .....	381,200	Apr. 17	1367	365	43	281
Mines. Lifting-cage for .....	D. T. Denton .....	395,041	Dec. 25	2035	525	45	1491
Mines. Signal-tube for .....	F. Shaw .....	390,262	Oct. 2	90	26	45	21
Mines. System of developing and working .....	N. P. Hulst .....	393,306	Nov. 20	1642	{ 433 } { 434 }	45	929
Mines. Timber structure for .....	G. J. Goodhue .....	377,197	Jan. 31	2125	560	42	439
Mining apparatus. Hydraulic .....	J. Hendy and O. M. Leveridge .....	393,559	Nov. 27	2032	532	45	1015
Mining-cages. Landing-catch for .....	J. L. Mitchell .....	377,402	Feb. 7	53	15	42	506
Mining-chair and indicating mechanism .....	J. Treweek .....	394,944	Dec. 18	1886	488	45	1454
Mining-drill .....	J. R. Howells .....	384,165	June 5	481	{ 132 } { 133 }	43	1214
Mining drill. Coal .....	W. A. J. Thompson .....	378,481	Feb. 28	1710	451	42	853
Mining-drill. Ratchet .....	W. A. Gentry .....	393,895	Dec. 4	241	64	45	1118
Mining-machine .....	F. Lowry .....	383,061	May 15	1768	457	43	870
Mining-machine .....	E. Moreau .....	376,719	Jan. 17	1433	{ 377 } { 378 }	42	288
Mining machine. Coal .....	J. N. Harrison .....	391,707	Oct. 23	2130	575	45	437
Mining-machine cutter .....	E. E. Carter .....	387,050	July 31	2542	608	44	526
Mining-machine cutter .....	E. E. Carter .....	387,144	July 31	2697	707	44	532
Mining-skip .....	L. S. Woodbury .....	394,633	Dec. 18	1363	357	45	1352
Mining-slucies. Rock-separating apparatus for .....	L. A. Fenner .....	375,808	Jan. 3	115	33	42	27
Mirror .....	J. Bay .....	382,291	May 8	618	{ 157 } { 158 }	43	637
Mirror .....	J. B. Vienney .....	381,600	Apr. 24	1962	516	43	417
Mirror .....	P. Wiederer .....	384,808	June 19	1442	378	43	1413
Mirror. Folding .....	W. J. Miller and H. Berry .....	392,215	Nov. 6	34	14	45	605
Mirror. Folding .....	P. Wiederer .....	381,452	Apr. 17	1746	465	43	355
Mirror. Folding .....	P. Wiederer .....	384,809	June 19	1443	378	43	1413
Mirror. Folding .....	P. Wiederer .....	387,387	Aug. 7	283	72	44	626
Mirror. Folding .....	P. Wiederer .....	393,678	Nov. 27	2216	581	45	1052
Mirror. Hand .....	L. Wiederer .....	377,282	Jan. 31	2259	597	42	462
Mirror-pivot .....	A. H. Jones and E. H. Peck .....	383,468	May 29	2384	634	43	1002
Mirrors and other articles. Pneumatic holder for .....	C. E. Dougherty .....	377,995	Feb. 14	982	256	42	700
Mirrors. Lighting attachment for .....	G. H. Coursen .....	391,122	Oct. 16	1326	353	45	270
Mirrors. Lighting device for toilet .....	H. S. Duff .....	388,346	Aug. 21	178	475	44	930
Miter-box .....	B. F. Gardiner .....	377,299	Jan. 31	2284	604	42	467
Miter-box .....	H. D. Lanfair .....	376,200	Jan. 10	676	179	42	139
Miter-box .....	C. Lyman .....	380,632	Apr. 3	485	136	43	99
Miter-boxes. Clamping attachment for .....	I. B. Sloat .....	391,093	Oct. 16	1290	344	45	264
Miter-cutting machine .....	W. R. Fox .....	393,970	Dec. 4	346	93, 94	45	1137
Mitering-machine .....	J. G. Gogins .....	376,192	Jan. 10	662	176	42	137
Mixing apparatus .....	B. Schumm .....	388,724	Aug. 28	2328	627	44	1040
Moccasin .....	J. L. Combs .....	391,025	Oct. 16	1193	317	45	245
Model. Display .....	D. Emerick .....	395,124	Dec. 25	2170	560	45	1518
Molasses-cups. Hinged cover for .....	A. Taplin .....	387,836	Aug. 14	941	244	44	760
Molasses-gate .....	J. Gérard and R. L. Webb .....	377,555	Feb. 7	309	79	42	554
Mold:							
See Brick-mold. Iced-mold.							
Butter-mold. Ingot-mold.							
Casting-mold. Metal mold.							
Cigar-mold. Metallic mold.							
Confectioner's mold. Pipe-mold.							
Glass-mold. Sand mold.							
Mold .....	J. Hemphill .....	384,976	June 26	1691	439	43	1468
Mold .....	M. G. Imbach .....	383,885	June 5	52	17	43	1131
Mold .....	R. Sleeth .....	384,595	June 12	1127	297	43	1342

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Mold-board .....	R. Jones .....	378,841	Feb. 28	2241	597	42	956
Mold-boards. Attaching .....	J. F. Packer .....	382,185	May 1	448	117	43	596
Mold for hollow articles .....	W. Hainsworth .....	386,067	July 10	1070	266	44	219
Mold-stripper .....	W. H. Adams .....	394,199	Nov. 20	1490	3-9	45	899
Molder's draw-iron .....	G. A. White .....	383,203	May 22	1974	519	43	920
Molder's flask .....	J. Harrison .....	375,935	Jan. 3	285	77	42	59
Molder's flask .....	H. H. Huntley .....	389,153	Sept. 4	538	135	44	1171
Molders' ladles. Shoulder-strap attachment for .....	J. B. Vallee .....	390,320	Oct. 2	166	46	45	36
Molder's snap-flask .....	E. Riley .....	383,203	June 26	2044	523	43	1540
Mo' ding .....	E. Reddy .....	390,398	Oct. 2	2-7	75	45	61
Molding apparatus .....	J. B. McCormick .....	381,156	Apr. 17	1305	349	43	271
Molding apparatus .....	W. S. Withers .....	393,804	Dec. 4	97	27	45	1092
Molding apparatus. Sand .....	S. J. Adams .....	377,005	Jan. 31	1859	491	42	387
Molding apparatus. Sand .....	S. J. Adams .....	377,006	Jan. 31	1862	491	42	387
Molding apparatus. Sand .....	S. J. Adams .....	377,007	Jan. 31	1864	492	42	387
Molding apparatus. Sand .....	S. J. Adams .....	377,008	Jan. 31	1867	492	42	388
Molding-machine .....	B. L. Bradley .....	376,704	Jan. 17	1412	371	42	284
Molding-machine .....	C. L. Goehring .....	394,763	Dec. 18	1569	410	45	1395
Molding-machine .....	C. L. Goehring .....	394,764	Dec. 18	1575	412	45	1396
Molding-machine .....	C. L. Goehring .....	394,765	Dec. 18	1578	413	45	1397
Molding-machine .....	T. B. Harkins .....	387,716	Aug. 14	794	204	44	730
Molding machine. Sand .....	J. R. Davies .....	382,217	May 1	493	138	43	604
Molding machine. Sand .....	W. and S. Sykes .....	380,300	Mar. 27	2120	567	42	1398
Molding machine. Wood .....	W. J. Smith .....	376,268	Jan. 10	769	204	42	157
Molding machine. Wood .....	W. J. Smith .....	376,269	Jan. 10	770	205	42	158
Moldings for gilding. Machine for preparing .....	C. Raymond .....	393,451	Nov. 27	1858	489	45	980
Moldings. Machine for cutting .....	W. Haddock .....	380,434	Apr. 3	183	50, 51	43	37
Moldings. Machine for cutting .....	G. P. Vicken .....	375,904	Jan. 3	234	63, 64	42	49
Moldings. Machine for cutting the rectal of show-case .....	F. X. Ganter .....	387,408	Aug. 7	308	79	44	631
Moldings. Putty for making ornamental .....	W. A. Snyder .....	387,017	July 31	2506	410	44	519
Mole and gopher trap .....	C. Van Wormer .....	388,515	Aug. 28	2024	544	44	983
Mole-trap .....	S. T. Grimmer .....	390,362	Oct. 2	235	63	45	49
Mole-trap .....	W. N. Wherry .....	393,048	Nov. 20	1285	333	45	858
Money. Box for packing .....	E. M. H. Lonitz .....	379,966	Mar. 27	1656	441	42	1306
Money-drawers. Recorder for .....	A. R. Peck .....	387,537	Aug. 7	499	131	44	670
Money-packages, &c. Safety-case for .....	E. J. Brooks .....	381,326	Apr. 17	1541	416	43	317
Money-packages, &c. Safety-case for .....	E. J. Brooks .....	390,559	Oct. 2	512	134	45	103
Money received. Apparatus and till for recording and registering the amount of .....	A. J. Lyon .....	389,159	Sept. 4	545	137	44	1173
Money, &c. Safety-packet for .....	T. E. McNamara .....	392,682	Nov. 13	743	188	45	743
Moneys. Apparatus for checking the receipt of .....	G. H. Gledhill .....	391,958	Oct. 30	2501	677	45	522
Monocycle .....	H. Behr .....	379,849	Mar. 20	1471	388	42	1260
Monuments. Ornamental structure for .....	G. Konigsberg .....	393,437	Nov. 27	1839	484	45	975
Mop .....	L. Moore .....	386,341	July 17	1479	392	44	302
Mop and brush. Combined .....	A. W. O'Blennis .....	377,955	Feb. 14	931	242	42	689
Mop and brush holder. Convertible .....	C. L. Fortin .....	394,069	Dec. 4	488	130	45	1165
Mop attachment .....	C. Mansbarger .....	378,605	Feb. 28	1885	499	42	888
Mop-holder .....	B. F. Gilbert, Jr. .....	378,586	Feb. 28	1862	491	42	884
Mop-wringer .....	H. Blako .....	378,949	Mar. 6	124	36	42	991
Mop-wringer .....	A. M. Burnham .....	380,275	Mar. 27	2086	558	42	1392
Mop-wringer .....	A. W. Burnham .....	393,355	Nov. 27	1722	456	45	953
Mop-wringer .....	J. A. Crandall .....	385,170	June 26	1990	510	43	1530
Mop-wringer .....	H. L. Ennes .....	385,601	July 3	404	103	44	79
Mop-wringer .....	G. B. Freeman .....	382,965	May 15	1602	419	43	838
Mop-wringer .....	H. I. Hotchkiss .....	377,157	Jan. 31	2074	545	42	428
Mop-wringer .....	E. H. Noble and C. E. Warren .....	388,710	Aug. 28	2310	621	44	1036
Mop-wringing attachment .....	C. L. Fortin .....	376,711	Jan. 17	1421	374	42	286
Mortar material .....	A. H. Williams .....	392,483	Nov. 6	453	155	45	680
Mortars. Pestle for .....	J. D. Belton .....	387,847	Aug. 14	973	253	41	766
Mortising-machine .....	G. W. Bugbee and F. Danner .....	384,559	June 12	1077	282	43	1333
Mortising-machine .....	W. H. Clapp .....	393,817	Dec. 4	118	33	45	1095
Mortising-machine .....	R. S. Greenlee .....	377,749	Feb. 14	604	155	42	623
Mortising-machine .....	F. V. Phillips .....	394,879	Dec. 18	1773	460	45	1434
Mortising-machine. Endless-chain .....	C. H. Douglas .....	379,566	Mar. 20	1028	275	42	1175
Mortising, tenoning, and planing machine, and turning-lathe. Combined .....	E. W. Snedeker .....	380,953	Apr. 10	980	260	43	200
Moth-proof bag .....	T. Manahan .....	376,005	Jan. 3	388	103	42	78
Moth-proof bag .....	T. Manahan .....	393,712	Nov. 27	2261	593	45	1060
Moth-proof paper bag .....	R. L. Stevens and W. I. Horsey .....	395,190	Dec. 25	2284	585	45	1546
Motion. Device for converting .....	R. Brotherton, Jr. .....	385,406	July 3	105	29	44	23
Motion. Device for converting .....	S. F. Kellogg .....	382,881	May 15	1490	390	43	817
Motion. Device for converting .....	W. F. McAndrews .....	379,405	Mar. 13	782	211	42	1130
Motion. Device for converting .....	E. F. Montgomery and A. Heiberger .....	390,502	Oct. 2	434	112	45	88
Motion. Device for converting .....	E. A. Moon .....	381,160	Apr. 17	1311	350	43	272
Motion. Device for converting .....	E. A. Moon .....	381,161	Apr. 17	1312	350	43	272
Motion. Device for converting .....	J. H. Pemberton .....	378,334	Feb. 21	1491	390	42	801
Motion. Means for converting .....	H. L. Arnold .....	377,133	Jan. 31	2045	535	42	422
Motion. Means for converting .....	H. James and G. Robinson .....	379,277	Mar. 13	599	165	42	1085
Motion. Mechanism for transmitting .....	L. P. Clawson, J. A. Keller, and J. W. See .....	392,782	Nov. 13	905	282	45	775
Motion. Transmitting .....	W. C. Jones and W. S. Rogers .....	387,235	Aug. 7	53	12	44	582

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
<b>Motor:</b>							
See Air-motor.	Hydrocarbon-motor.						
Cable-motor.	Mechanical motor.						
Car-motor.	Multiple-cylinder motor.						
Churn-motor.	Petroleum-motor.						
Current-motor.	Pressure-motor.						
Electric motor.	Pyromagnetic motor.						
Electro-dynamic motor.	Rotary motor.						
Electro-magnetic motor.	Self-acting motor.						
Explosive motor.	Sewing-machine motor.						
Fan-motor.	Spring-motor.						
Fluid-motor.	Steam-motor.						
Foot-power motor.	Steam or other motor.						
Gas-motor.	Water-motor.						
Hydraulic motor.	Wave-power motor.						
	Weight-motor.						
Motor.....	G. W. Bailey and G. R. Leibersperger.	385,588	July 3	383	99	44	76
Motor.....	J. M. Brosius.	382,865	May 15	1463	384	43	811
Motor.....	C. E. Cooley and E. G. Nason.	379,004	Mar. 6	211	57	42	1006
Motor.....	B. Dottra.	389,290	Sept. 11	762	193	44	1225
Motor.....	D. du Boulay.	380,648	Apr. 3	511	143	43	104
Motor.....	W. J. Dum.	380,557	Apr. 3	379	108	43	77
Motor.....	C. C. Epp.	394,256	Dec. 11	776	{ 205 206 }	45	1228
Motor.....	J. B. Erwin.	384,612	June 19	1154	{ 305 306 }	43	1356
Motor.....	J. C. Gose.	388,858	Sept. 4	78	21	44	1088
Motor.....	W. L. Haley.	391,412	Oct. 23	1728	461	45	355
Motor.....	H. Heitmann.	395,232	Dec. 25	2356	603	45	1549
Motor.....	A. Iske.	389,513	Sept. 11	1077	286	44	1284
Motor.....	G. L. Jaeger.	389,473	Sept. 11	1020	272	44	1274
Motor.....	J. F. Roseberry.	392,290	Nov. 6	163	42, 43	45	624
Motor.....	H. Silvester.	393,862	Dec. 4	189	52	45	1107
Motor.....	G. F. Wells.	390,929	Oct. 9	1021	270	45	207
Motor.....	G. W. Wimpee.	386,950	July 31	2408	633	44	500
Motor-engine operated by the combustion of liquid hydrocarbon.	W. D. and S. Priestman.	386,029	July 10	1019	{ 270 271 }	44	208
Motor-engine worked by combustible gas.	N. A. Otto.	383,065	May 15	1775	459	43	872
Motor-engine worked by combustible gas or vapor and air.	N. A. Otto.	390,091	Sept. 25	1367	524	44	1473
Motor-engine worked by combustible gas, vapor, or spray.	N. A. Otto.	388,302	Aug. 21	1720	{ 459 460 }	44	919
Motors. Cylinder for hydraulic.	W. Ross.	382,389	May 8	772	196	43	666
Motors. Operating alternate-current.	W. Stauley, Jr.	392,470	Nov. 6	436	109	45	677
Motors. Regulator for alternate-current.	N. Tesla.	390,820	Oct. 9	867	{ 229 230 }	45	177
Movement. Device for imparting combined rotary and reciprocating.	J. Thomsen.	378,344	Feb. 21	1503	394	42	805
Mower.....	L. Erpelding.	378,390	Feb. 21	1565	{ 409 410 }	42	816
Mower.....	R. D. Hoke and I. A. Harris.	385,862	July 10	792	211	44	161
Mower.....	J. W. Latimer.	390,085	Sept. 25	1958	{ 520 521 }	44	1471
Mower.....	J. H. Pitkin and J. F. Steward.	391,075	Oct. 16	1263	336	45	259
Mower.....	A. L. Quilliam.	384,712	June 19	1309	342	43	1386
Mower.....	W. Schoeller.	380,459	Apr. 3	226	62	43	46
Mower.....	F. N. Violet.	385,979	July 10	954	253	44	195
Mower attachment. Lawn.	B. A. Crosier.	383,632	May 29	2616	692	43	1049
Mower for terraces. Lawn.	W. L. Woodruff.	386,444	July 17	1638	431	44	339
Mower. Lawn.	W. L. Frisbie.	379,949	Mar. 27	1630	434	42	1301
Mower. Lawn.	F. E. Grothaus.	389,804	Sept. 18	1523	403	44	1378
Mower. Lawn.	E. E. Johnson.	385,272	June 26	2156	550	43	1563
Mower. Lawn.	E. Kelly.	377,562	Feb. 7	318	81	42	556
Mower. Lawn.	W. A. Lond.	390,494	Oct. 2	420	{ 168 169 }	45	86
Mower. Lawn.	J. W. McClellan.	383,896	June 5	72	21	43	1135
Mower. Lawn.	A. J. Moyer.	392,282	Nov. 6	154	39, 40	45	623
Mower. Lawn.	G. J. Parham.	391,069	Oct. 16	1255	334	45	257
Mower. Lawn.	I. W. Richards.	384,787	June 19	1411	370	43	1407
Mower. Lawn.	C. F. Ritchel.	382,388	May 8	771	195	43	666
Mower. Lawn.	T. Rogers.	391,193	Oct. 16	1424	381	45	290
Mower. Lawn.	J. V. Rowlett.	383,829	May 29	2930	{ 774 775 }	43	1110
Mower. Lawn.	J. H. Thomas.	375,842	Jan. 3	157	44	42	35
Mower. Lawn.	J. F. Watermolen.	379,530	Mar. 13	701	{ 190 191 }	42	1104
Mower. Lawn.	F. M. Waters.	383,927	June 5	129	38	43	1146
Mower reel. Lawn.	D. B. Hiser.	375,816	Jan. 3	124	36	42	29
Mowers and reapers. Cutter and cutter-bar for.	C. E. Morton and S. F. Brown.	377,464	Feb. 7	177	42	42	529
Mowers and reapers. Cutter-bar for.	P. E. Shee.	380,058	Mar. 27	1793	479	42	1332
Mowers and reapers. Guard-finger for.	H. Lubker.	383,473	May 29	2392	636	43	1004
Mowers. Journal-bearing for lawn.	C. Newhall.	386,082	July 10	1093	293	44	223
Mowers, reapers, &c. Knife for.	W. S. Elliott.	394,349	Dec. 11	920	242	45	1257
Mowing and reaping machine.	W. H. H. Heydrick.	386,318	July 17	1454	384	44	297
Mowing-machine.	W. Aldrich.	388,807	Sept. 4	1	1	44	1073
Mowing-machine.	W. Bayley.	392,658	Nov. 13	711	{ 179 180 }	45	736
Mowing-machine.	H. Brackett.	386,519	July 24	1762	465	44	369
Mowing-machine.	A. O. Carman.	389,544	Sept. 18	1122	{ 296 297 }	44	1300
Mowing-machine.	A. P. Cook.	391,514	Oct. 23	1869	{ 501 502 }	45	388
Mowing-machine.	G. G. Crowley.	386,627	July 24	1902	503	44	397



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Mowing-machine.	J. Dain, Jr.	382,592	May 8	1089	{ 280 281	{ 43	728
Mowing-machine.	F. M. Hunt	386,015	July 10	999	266	41	204
Mowing-machine.	I. T. Jaques	385,354	July 3	21	7	41	6
Mowing-machine.	S. V. Kennedy and D. Strunk	383,644	May 29	2636	{ 697 698	{ 43	1053
Mowing-machine.	G. W. Maxwell	393,911	Dec. 4	269	73	45	1123
Mowing-machine.	G. H. Spaulding	389,023	Sept. 4	319	84	41	1133
Mowing-machine.	E. F. Stoddard and A. F. Brown	388,741	Aug. 28	2346	{ 632 633	{ 41	1044
Mowing-machine.	W. N. Whiteley and W. Bayley	378,816	Feb. 28	2197	{ 585 586	{ 42	947
Mowing-machine. Center-draft.	W. Hill	392,335	Nov. 6	229	59	45	631
Mowing-machine divider.	J. H. Jones	380,900	Apr. 10	904	242	43	185
Mowing-machines. Pitman attachment for	F. McMahon, A. C. Sharp, and C. E. Liles.	382,891	May 15	1502	393	43	820
Mucilage-can	J. E. Wootten	382,746	May 15	1307	341	41	779
Mucilage-holder	I. A. Bush	388,823	Sept. 4	20	7	41	1076
Muffer. Steam.	T. E. Hill	384,364	June 12	793	207	41	1279
Muffer. Steam.	G. F. Royer	379,608	Mar. 20	1100	292	42	1188
Muff	Z. T. Hall	385,179	June 26	2004	514	43	1532
Multiple-cylinder motor	E. B. Benham	380,847	Apr. 10	813	221	43	169
Multiple drill	F. C. Weir, C. Partington, N. O. Goldsmith and E. W. Harden.	378,748	Feb. 28	2081	549	42	925
Multiple switch-board	M. G. Kellogg	382,474	May 8	903	230	43	690
Multiple switch-board	M. G. Kellogg	382,475	May 8	907	230	43	690
Multiple switch-board	M. G. Kellogg	382,476	May 8	910	231	43	691
Multiple switch-board	M. G. Kellogg	382,477	May 8	913	231	43	692
Multiple switch-board	M. G. Kellogg	385,863	July 10	793	211	44	161
Multiple switch-board	M. G. Kellogg	386,886	July 31	2342	{ 608 609	{ 44	480
Multiple switch-board	M. G. Kellogg	386,887	July 31	2316	609	44	481
Multiple switch-board	M. G. Kellogg	387,645	Aug. 14	683	{ 176 177	{ 44	710
Multiple switch-board	M. G. Kellogg	387,888	Aug. 14	1036	272	44	778
Multiple switch-board	M. G. Kellogg	387,889	Aug. 14	1038	273	44	778
Multiple switch-board	M. G. Kellogg	387,890	Aug. 14	1041	273	44	779
Multiple switch-board	M. G. Kellogg	388,052	Aug. 21	1301	352	44	839
Multiple switch-board	M. G. Kellogg	388,283	Aug. 21	1685	{ 450 451	{ 44	913
Multiple switch-board	M. G. Kellogg	393,508	Nov. 27	1951	511	45	997
Multiple switch-board	M. G. Kellogg	393,509	Nov. 27	1957	511	45	999
Multiple switch-board	A. Sechrist	385,826	July 10	732	192	44	150
Multiple switch-board circuit	C. E. Scribner	381,477	June 12	940	214	43	1308
Multiple switch-board-testing apparatus.	C. E. Scribner	384,644	June 19	1200	317	43	1365
Multiple switch-boards. Long-distance connection for	C. E. Scribner	381,431	Apr. 17	1704	457	43	349
Multiple switch-boards. Test-circuit for	C. E. Scribner	383,495	May 29	2427	{ 644 645	{ 43	1010
Multiple switch-boards. Test system for	C. E. Scribner	385,205	June 26	2047	523	43	1541
Multiple transfer-pad	G. H. Arthur	381,201	Apr. 17	1368	365	43	282
Music-bands. Machine for perforating	J. Carpentier	389,852	Sept. 25	1641	435	44	1406
Music-box	E. Bormand	391,504	Oct. 23	1854	497	45	381
Music-box	L. Campiche	382,292	May 8	619	158	43	638
Music-box	E. F. Jaccard	382,879	May 15	1488	{ 389 390	{ 43	817
Music-box	A. L'Epée	378,399	Feb. 21	1578	114	42	819
Music-boxes. Safety device for	G. J. Jaccard	390,024	Sept. 25	1855	492	44	1450
Music-chart.	G. S. Rice	383,011	May 15	1687	439	43	851
Music-clip and bow-guide. Combined	W. H. Pike	385,612	July 3	468	121	44	91
Music-folio	W. J. Gronert and C. G. Conn	376,648	Jan. 17	1329	349	42	268
Music-holder.	G. Diebendorf	388,270	Aug. 21	1669	416	44	909
Music-holder.	J. B. Eastlack	391,521	Oct. 23	1878	504	45	386
Music-holder.	E. W. Robinson	385,010	June 26	1757	451	43	1182
Music-holder.	D. E. Rugg	381,486	Apr. 17	1787	476	43	361
Music-leaf turner	L. Bernbard	387,707	Aug. 14	774	198	44	727
Music-rack	G. R. Lampard	394,986	Dec. 25	1961	505	45	1477
Music-rack for band instruments	W. L. Hendrick	394,856	Dec. 18	1743	452	45	1427
Music-rack holder	A. W. Utzinger	381,346	Sept. 11	831	212	41	1239
Music-stand. Folding	J. H. Macke, Jr.	377,629	Feb. 7	418	106	42	575
Music-stand. Folding	J. H. Macke, Jr. (Reissue)	10,947	July 24	2418	564	41	442
Musical box	J. Billon-Haller	388,947	Sept. 4	212	56	41	1113
Musical box	E. Fornachon	382,080	May 1	309	81	43	570
Musical indicator	J. Maggs	395,067	Dec. 25	2070	535	45	1500
Musical instrument.	A. Lowmiller	376,443	Jan. 17	1017	{ 267 268	{ 42	210
Musical instrument. Key-board.	A. L. Caldera	382,028	May 1	921	58, 59	43	554
Musical instrument. Mechanical	H. Burckas	387,141	July 31	2694	706	41	551
Musical instrument. Mechanical	M. Gally	380,716	Apr. 10	617	170	43	132
Musical instrument. Mechanical	M. Gally	387,635	Aug. 14	668	173	41	707
Musical instrument. Mechanical	J. McTammany	390,385	Oct. 2	266	71	45	57
Musical instrument. Mechanical	J. McTammany	390,386	Oct. 2	269	71	45	57
Musical instrument. Mechanical	F. Stone	394,794	Dec. 18	1634	428	45	1407
Musical instrument. Mechanical	L. E. J. Thibonville	380,608	Apr. 3	454	{ 128 129	{ 43	92
Musical instrument. Mechanical	W. B. Tremaine	376,725	Jan. 17	1412	379	42	291
Musical instrument. Mechanical	G. F. Wells	393,456	Nov. 27	1867	492	45	981
Musical instrument. Pneumatic wind.	W. D. Parker	394,006	Dec. 4	396	106	45	1147
Musical instruments. Peg for stringed	H. C. Fitch	389,958	Sept. 25	1762	467	41	1432
Musical instruments. Pneumatic action for	W. D. Parker	391,005	Dec. 4	393	106	45	1146
Musical instruments. Repeating-check for music-sheets of mechanical	J. Craunell	379,887	Mar. 20	1540	406	42	1274
Musical notation	P. Austman	393,054	Nov. 20	1293	335	45	860
Musical notation	D. Fallon	391,887	Oct. 30	2398	650	45	501

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Musical wind-instrument .....	A. Leforestier .....	382,991	May 15	1638	429	43	845
Mustard-package .....	W. P. Crary .....	389,365	Sept. 11	861	222	44	1245
Mustard-pot. Pneumatic .....	M. Dehnert .....	382,218	May 1	496	129	43	605
Muzzle .....	R. B. Cole .....	381,615	Apr. 24	1982	520	43	421
Nail:							
See Flat-pointed nail Shoe-nail.							
Horseshoe-nail. Wire nail.							
Screw-nail.							
Nail .....	W. B. Alden .....	382,676	May 15	1215	315	43	761
Nail .....	W. Z. Beau .....	391,773	Oct. 30	2216	600	45	466
Nail .....	A. Bellanger .....	391,109	Oct. 16	1311	350	45	208
Nail .....	R. H. Lewis and S. McCloud .....	394,866	Dec. 18	1758	455	45	1430
Nail .....	E. Wilder .....	376,620	Jan. 17	1281	336	42	260
Nail-assorting machine .....	E. B. Allen .....	384,735	June 19	1337	348	43	1391
Nail-case .....	W. G. Barnes .....	386,681	July 24	1981	523	44	412
Nail-cutter .....	T. F. Curley .....	385,914	July 10	874	231	44	179
Nail distributing and feeding machine .....	F. F. Raymond, 2d. ....	379,330	Mar. 13	678	183	42	1099
Nail-driving implement .....	J. Patten .....	394,604	Dec. 18	1310	343	45	1344
Nail-driving implement. Hand .....	J. Weichhart .....	380,612	Apr. 3	461	130	43	94
Nail-extractor .....	G. J. Capewell .....	394,756	Dec. 18	1559	407	45	1392
Nail-extractor .....	G. W. Lane .....	377,565	Feb. 7	321	82	42	556
Nail feeding and distributing machine .....	F. F. Raymond, 2d. ....	383,911	June 5	98	29	43	1139
Nail-finishing machine .....	E. E. Pierce .....	379,413	Mar. 13	797	214	42	1123
Nail-machine .....	G. E. Buschick and F. Rautert .....	381,422	June 12	872	227	43	1295
Nail machine. Cut .....	B. Hemann .....	386,317	July 17	1453	384	41	297
Nail machine. Wire .....	W. F. Bancroft and H. A. Stone .....	382,632	May 8	1144	294	43	738
Nail machine. Wire .....	H. Cameron .....	390,648	Oct. 9	627	167	45	133
Nail machine. Wire .....	J. L. Coroy .....	377,238	Jan. 31	2194	579	42	451
Nail machine. Wire .....	E. Fontaine .....	390,615	Sept. 25	1842	488	44	1447
Nail machine. Wire .....	A. B. Glover .....	383,378	June 5	39	12	43	1129
Nail machine. Wire .....	J. F. Hamel .....	389,300	Sept. 11	775	196	44	1327
Nail machine. Wire .....	G. W. McKim .....	393,254	Nov. 20	1569	411	45	915
Nail-machines. Attachment for .....	P. M. Gibbons, W. K. Topley, and G. F. Brown .....	391,465	Oct. 23	1804	412	45	370
Nail machines. Die-holder and straightening device for wire .....	M. M. Smith .....	379,735	Mar. 20	1282	342	42	1225
Nail-machines. Manufacture of knives for .....	L. B. Rockwell .....	393,858	Dec. 4	183	50	45	1106
Nail-making machine .....	F. Bryant .....	378,656	Feb. 28	1956	519	42	902
Nail-making machine .....	F. F. Raymond, 2d. ....	376,308	Jan. 10	690	520	42	141
Nail making and distributing machine .....	F. F. Raymond, 2d. ....	380,596	Apr. 3	438	183	43	89
Nail making and distributing machine .....	F. F. Raymond, 2d. ....	380,818	Apr. 10	772	123	43	162
Nail making and distributing machine .....	F. F. Raymond, 2d. ....	394,609	Dec. 18	1332	212	45	1315
Nail making and distributing machine .....	F. F. Raymond, 2d. ....	394,610	Dec. 18	1325	346	45	1345
Nail making, distributing, and driving machine .....	F. F. Raymond, 2d. ....	381,280	Apr. 17	1480	347	43	304
Nail-making machine. Wire .....	J. E. Kimball .....	385,062	Dec. 29	2066	533	45	1499
Nail-plate feeder .....	J. C. Gould .....	385,112	June 26	1912	534	43	1514
Nail-plate feeder .....	G. T. Harden and E. S. Grant .....	388,673	Aug. 28	2253	604	41	1025
Nail-plate feeder .....	C. E. Houghton .....	380,572	Apr. 7	401	115	43	82
Nail-plate feeder .....	S. H. Shurtleff and L. R. Haag .....	379,135	Mar. 6	395	112	42	1040
Nail-plate feeder .....	A. H. Tyrell .....	381,599	Apr. 24	1960	516	43	417
Nail-plate-feeding device .....	J. Pilkington .....	392,064	Oct. 30	2658	723	45	551
Nail-setting machine .....	S. C. Smith .....	392,372	Nov. 6	288	73	45	619
Nail-strip .....	J. R. Prouty .....	381,907	June 5	93	28	43	1138
Nail-strip .....	J. R. Prouty .....	383,908	June 5	94	28	43	1138
Nail-strips. Machine for loading .....	J. R. Prouty .....	381,910	June 5	96	28	43	1139
Nail-strips. Machine for making flexible .....	E. B. Allen .....	378,859	Mar. 6	1	1	42	967
Nail-tongs .....	A. Wood .....	376,220	Jan. 19	705	187	42	145
Nails and spikes. Machine for making .....	J. T. Jones .....	386,405	July 17	1584	417	44	327
Nails. Die for cutting and pointing wire .....	H. A. Stone .....	377,732	Feb. 7	554	142	42	599
Nails. Die for pointing and cutting off .....	C. D. Rogers .....	393,519	Nov. 20	1978	516	45	1004
Nails. Machine for making cut .....	F. Allison .....	394,903	Dec. 10	1820	471	45	1441
Nails. Machine for making decorative .....	H. P. Fiske .....	388,126	Aug. 21	1445	387	44	864
Nails. Machine for making upholsterers' .....	F. J. Bergmann .....	378,824	Feb. 26	324	589	42	950
Nails. Machine for making wire .....	H. Essex .....	384,515	June 12	1014	264	43	1321
Nails. Making cut .....	R. H. Plass .....	385,373	July 1	51	15	44	12
Nails, tacks, &c. Heading .....	G. W. Copeland .....	383,043	May 15	1748	452	43	866
Nailing implement .....	H. McCormack .....	392,963	Nov. 13	1151	299	45	824
Nailing implement. Hand .....	J. Milne .....	393,118	Nov. 20	1374	300	45	875
Nailing-machine .....	W. Z. Beau .....	389,632	Sept. 18	1266	234	44	1326
Nailing-machine .....	H. W. Deau .....	380,615	Apr. 3	502	335	43	103

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Nailing-machine	L. Goddu	383,455	May 29	2350	{ 625 626 627 }	43	996
Nailing-machine	L. Goddu	388,128	Aug. 21	1450	359	44	865
Nailing-machine	J. P. Smith and W. C. Evans	376,114	Jan. 10	543	145	42	115
Nailing-machine	E. Wilder	376,619	Jan. 17	1277	{ 334 335 336 }	42	239
Name or sign plate	H. Wark	391,727	Oct. 23	2152	582	45	442
Naphtha-engine	C. L. Seabury	393,080	Nov. 20	1322	345	45	865
Napkin-holder	A. P. Baker	383,817	June 5	2	1	43	1121
Napkin-holder	J. W. Reed	389,940	Sept. 25	1740	461	44	1427
Napkin-ring	E. C. Bowling	385,985	July 10	976	260	41	199
Napkin-supporter	F. W. Cook	382,691	May 15	1210	323	43	766
Napping textile fabrics. Machine for	G. and H. Baucho	393,605	Nov. 27	2103	550	45	1029
Navigation-lock	A. Kirk	385,359	July 3	30	9, 10	41	8
Neck-wear. Packing and display box for	J. H. Fleisch	386,807	July 31	2173	573	41	457
Necktie	W. H. Harrison, Jr.	387,251	Aug. 7	46	10	44	580
Necktie and collar-button combined	A. C. Whittingham	383,929	June 5	133	38	43	1146
Necktie-fastener	L. C. F. Froes	386,396	July 17	1555	412	41	317
Necktie-fastener	M. Hamburger	392,330	Nov. 6	224	58	45	637
Necktie-fastener	A. Hellenberg	381,636	June 5	289	81	43	1176
Necktie-fastener	W. B. Sargent	383,993	June 5	226	66	43	1164
Necktie-fastener	L. H. Thomas	393,085	Nov. 20	1331	317	45	866
Necktie-fastener	E. Woodruff	389,128	Sept. 4	492	125	44	1164
Necktie-fastening	D. Isakovitz	385,629	July 3	418	115	44	87
Necktie-holder	E. Currie, Jr.	390,571	Oct. 2	528	138	45	116
Necktie-retainer	J. Engel	393,101	Nov. 20	1350	352	45	871
Neckties. Display-box for	J. W. M. Uhrig	378,224	Feb. 21	1317	350	42	771
Needle and cord. Combined	E. A. Bailey	388,009	Aug. 21	1236	335	44	827
Needle and cord. Combined	F. A. Smith, Jr.	380,773	Apr. 10	708	196	43	150
Needle and twine-cutter. Combined	F. E. Wood	391,500	Oct. 23	1850	495	45	340
Needle-bath	B. C. Smith	382,011	May 1	191	49	43	549
Needle-blanks. Apparatus for preparing	H. Heusch	391,847	Oct. 30	2343	636	45	490
Needle-blanks. Machine for swaging	W. H. Dayton	376,144	Jan. 10	597	159	42	125
Needle. Bloating	J. J. Alleman	387,480	Aug. 7	411	108	44	653
Needle-case	G. L. Turney	387,273	Aug. 7	106	28	44	593
Needle-case and darning implement. Combined	H. G. Arnitage	386,283	July 17	1407	370	44	288
Needle-grooving machine	P. M. Beers	378,489	Feb. 28	1719	{ 454 455 }	42	835
Needle-grooving machine	J. Berry	382,250	May 1	543	{ 138 139 }	43	613
Needle-grooving machine	L. B. Miller	386,841	July 31	2252	{ 592 593 }	44	469
Needle-grooving machine	E. S. Parsons	376,844	July 31	2257	594	44	470
Needle. Suture	T. E. McBrayer	389,255	Sept. 11	668	171	44	1207
Needle-threader	J. M. Miller	393,117	Nov. 20	1374	359	45	875
Needle-threader	A. Scherkenbach	394,303	Dec. 11	848	221	45	1242
Needle. Wax-end	J. T. Smith	386,723	July 24	2037	536	44	422
Needles. Machine for cutting off blanks for	E. S. Parsons	394,661	Dec. 18	1406	{ 366 367 }	45	1360
Needles. Making	S. F. Jenkins	383,733	May 29	2766	729	43	1080
Negative-washing tray	Z. B. Coes	389,201	Sept. 11	612	156	44	1195
Nest. Hen's	W. W. Rhodes	394,397	Dec. 11	989	250	45	1270
Nest. Hen's	E. M. Schumacher	380,699	Apr. 10	595	163	43	128
Net. Fly	V. A. and F. S. Weaver	390,420	Oct. 2	311	82	45	66
Net for horses. Fly	G. W. Kelsey, Jr.	391,372	Oct. 16	1676	413	45	336
Net. Landing	G. W. McClintock	382,317	May 8	652	166	43	643
Netting. Machine for making wire	W. F. Dennis	379,008	Mar. 6	214	58	42	1007
Newspaper folding, wrapping, addressing, and binding machine.	G. S. Alden	389,699	Sept. 18	1259	{ 330 331 332 }	44	1324
Newspaper-selling apparatus	E. Anthony	376,021	Jan. 3	410	{ 108 109 }	42	82
Newspaper-selling apparatus	C. Galland	382,521	May 8	974	215	43	704
Newspapers, &c. Automatic apparatus for the sale of	R. Alexander-Katz	378,945	Mar. 6	119	34, 35	42	990
Nickel or other metal by electrolysis. Apparatus for forming sheets of	M. G. Farmer	381,004	Apr. 10	1065	283	43	215
Night-light attachment	J. and W. J. Stratton	395,090	Dec. 25	2105	545	45	1507
Nippers. Cutting	H. S. Brownson	386,736	July 24	2057	542	44	425
Nippers. Cutting	R. H. Johnson	377,759	Feb. 14	617	160	42	626
Non-conducting composition	S. Heilmann	393,644	Nov. 27	2164	617	45	1042
Non-heat-conducting fabric	H. M. Hammore	386,981	July 31	2455	645	44	509
Non-polarizing constant-current battery	F. J. Crouch	379,372	Mar. 13	739	201	42	1111
Nose-bag support for vehicles	J. Murray	383,823	May 29	2920	771	43	1108
Nose-ring	L. W. Wood	386,517	July 24	1758	464	44	368
Nose rings. Machine for making barbs for hog	J. H. Derington and H. J. Parker	382,693	May 15	1243	321	43	766
Nozzle	C. L. Travis	378,531	Feb. 28	1779	470	42	868
Nozzle	B. Wright	385,653	July 3	480	124	44	93
Nozzle. Filling and pouring	N. Thompson	381,971	May 1	109	26	43	534
Nozzle. Spray	D. T. Ellis	386,870	July 31	2293	603	41	477
Nozzle. Spray	L. D. Greene, J. Crofton, and G. B. Greene	390,474	Oct. 2	391	100	45	81
Numbering-head	F. W. Wicht	391,289	Oct. 16	1561	414	45	315
Numbering-machine	C. S. Ellis	381,227	Apr. 17	1399	375	43	288
Numbering-machine	S. K. White	381,974	May 1	113	27	43	535
Numbering-machine. Consecutive	J. H. Reinhardt	388,307	Aug. 21	1728	461	44	920
Numbering mechanism	J. M. Black	381,105	Apr. 17	1238	332	43	257
Nut and bolt	A. Schütz, E. Schultes, and R. Plücker	389,603	Sept. 18	1227	321	44	1318
Nut-blanks. Machine for making	E. C. Boerner	395,031	Dec. 25	2019	521	45	1189
Nut-blanks. Machine for making	E. C. Boerner	395,032	Dec. 25	2022	522	45	1449
Nut-blanks. Method of and machine for making	S. S. Babbitt	376,234	Jan. 10	768	{ 188 189 }	42	146

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Nut-blanks. Shaping.	E. C. Boerner.	395,030	Dec. 25	2018	521	45	1489
Nut-drilling machine.	H. H. Taylor.	391,824	Oct. 30	2300	626	45	483
Nut for screw-bolts.	I. C. Howes.	392,731	Nov. 13	820	208	45	759
Nut-lock.	L. Anderson.	377,185	Jan. 31	2109	556	42	436
Nut-lock.	L. Anderson.	384,885	June 19	1568	407	43	1435
Nut-lock.	W. H. H. Ayars.	394,749	Dec. 18	1550	405	45	1390
Nut-lock.	H. B. Baker.	383,268	May 22	2080	546	43	940
Nut-lock.	C. M. Baldwin.	388,332	Aug. 21	1763	471	44	926
Nut-lock.	J. P. Ball.	383,685	May 29	2631	711	43	1065
Nut-lock.	L. J. Benton.	382,789	May 15	1371	300	43	791
Nut-lock.	H. C. Bowen.	376,179	Jan. 11	646	172	42	135
Nut-lock.	P. L. Brady.	380,712	Apr. 19	612	168	43	131
Nut-lock.	J. H. Bardick.	377,188	Jan. 31	2112	557	42	436
Nut-lock.	R. W. Burton.	385,442	July 3	165	45	44	34
Nut-lock.	O. L. Castle.	384,212	May 22	1991	522	43	924
Nut-lock.	J. T. Clark.	386,624	July 21	1699	502	44	397
Nut-lock.	G. E. Clarke.	380,188	Mar. 27	1972	527	42	1368
Nut-lock.	R. Clay.	386,381	July 17	1537	406	44	314
Nut-lock.	J. D. Cleck.	394,097	Dec. 4	528	141	45	1172
Nut-lock.	G. Cook.	381,463	Apr. 17	1753	469	43	357
Nut-lock.	G. Cook.	394,462	Dec. 11	1075	280	45	1285
Nut-lock.	O. R. Cooke.	388,764	Aug. 28	2383	613	44	1051
Nut-lock.	H. F. Corey.	389,639	Sept. 18	1200	337	44	1324
Nut-lock.	J. N. Crabb.	391,028	Oct. 10	1200	319	45	247
Nut-lock.	J. B. Crossley.	379,686	Mar. 20	1214	321	42	1211
Nut-lock.	D. Dodd.	390,212	Oct. 2	25	7	45	8
Nut-lock.	W. Dunn.	382,078	May 1	306	80	43	569
Nut-lock.	J. Edgar.	378,779	Feb. 28	2125	561	42	993
Nut-lock.	G. P. Fuller.	376,771	Jan. 24	1525	401	42	315
Nut-lock.	H. Gamble.	391,410	Oct. 23	1726	460	45	354
Nut-lock.	G. H. Griffin.	394,537	Dec. 11	1189	309	45	1306
Nut-lock.	J. A. Hard.	381,204	June 5	546	148	43	1226
Nut-lock.	F. H. Harvey.	393,293	Nov. 20	1640	432	45	928
Nut-lock.	H. T. Haugh and W. S. Zickefoose.	375,813	Jan. 3	122	35	42	29
Nut-lock.	W. H. Haws.	377,714	Feb. 7	545	139	42	597
Nut-lock.	G. Heffner.	377,613	Feb. 7	395	100	42	570
Nut-lock.	W. B. Holcombshell.	383,810	May 29	2903	766	43	1104
Nut-lock.	T. C. Hughes.	391,974	Oct. 30	2527	684	45	527
Nut-lock.	R. M. Johnson.	377,307	Jan. 31	2209	608	42	470
Nut-lock.	W. A. Jordan.	378,008	Feb. 14	1004	262	42	703
Nut-lock.	W. A. Jordan.	380,843	Sept. 18	1575	417	44	1387
Nut-lock.	W. Kail.	388,051	Aug. 21	1304	352	44	839
Nut-lock.	R. M. Keating.	379,278	Mar. 13	600	165	42	1085
Nut-lock.	A. B. Kerr.	384,767	June 19	1382	362	43	1401
Nut-lock.	W. S. Keyes.	386,989	July 31	2464	647	44	511
Nut-lock.	M. H. Koontz.	386,834	July 31	2242	529	44	467
Nut-lock.	J. T. Latchaw.	380,494	Apr. 3	272	75	43	56
Nut-lock.	G. S. Lee.	391,624	Oct. 23	2015	545	45	415
Nut-lock.	W. A. Leech and G. W. Foglo.	383,123	Mar. 27	1891	563	42	1351
Nut-lock.	J. Merriss and A. S. Muncey.	384,378	June 12	815	212	43	1284
Nut-lock.	W. B. Miller.	382,999	May 15	1652	432	43	847
Nut-lock.	A. B. Neiman and L. M. Melhoru.	383,366	May 22	2214	587	41	965
Nut-lock.	E. H. A. Oakley.	381,573	Apr. 21	1918	505	43	408
Nut-lock.	M. H. Phillips.	382,054	May 1	269	71	43	563
Nut-lock.	J. H. Piper.	380,926	Apr. 10	941	250	43	193
Nut-lock.	H. P. Prum.	386,351	July 17	1492	396	44	305
Nut-lock.	P. and J. Rennie.	378,618	Feb. 28	1903	504	42	892
Nut-lock.	E. C. Rolls.	379,523	Mar. 13	964	260	42	1155
Nut-lock.	E. C. Rolls.	392,070	Oct. 50	2066	725	45	553
Nut-lock.	J. A. Saunders.	376,347	Jan. 10	880	230	42	178
Nut-lock.	W. N. Sears.	380,526	Apr. 3	332	95	43	68
Nut-lock.	T. P. Silkwood.	393,725	Nov. 27	2278	578	45	1063
Nut-lock.	W. Sleicher, Jr.	388,508	Aug. 18	2015	541	44	981
Nut-lock.	W. S. Starnes.	394,143	Dec. 4	594	160	45	1185
Nut-lock.	A. W. Talley.	379,036	Mar. 6	257	73	42	1014
Nut-lock.	D. W. Throckmorton.	392,702	Nov. 13	773	196	45	749
Nut-lock.	W. H. Van Wart.	385,889	July 10	842	222	44	172
Nut-lock.	A. C. Vaughan.	389,027	Sept. 4	323	85	41	1134
Nut-lock.	A. C. Vaughan.	391,284	Oct. 16	1554	412	45	314
Nut-lock.	L. Von Frohen.	390,631	Oct. 2	508	159	45	120
Nut-lock.	J. G. Ware.	382,200	May 1	470	120	41	599
Nut-lock.	S. J. Warner.	390,146	Sept. 25	2038	543	44	1488
Nut-lock.	G. Westinghouse, Jr.	382,920	May 15	1540	403	43	827
Nut-lock.	H. O. Whyman.	378,563	Feb. 28	1829	482	42	876
Nut-lock.	A. J. Wylie.	383,162	May 22	1919	502	43	909
Nut-lock for valves.	W. H. Van Wart.	385,888	July 10	841	222	44	172
Nut-machine.	G. M. Dunham.	386,805	July 31	2170	572	44	456
Nut-machine.	F. Lackner.	385,187	June 26	2021	517	43	1533
Nut-machine.	F. Lackner.	385,188	June 26	2023	517	43	1535
Nut-machine.	A. Marland.	385,128	June 26	1936	494	43	1518
Nut-making machine.	F. Brüser.	381,872	Apr. 24	2365	614	43	494
Nut-making machine.	J. H. Bardick.	380,244	Mar. 27	2051	548	42	1384
Nut-making machine.	G. Dunham.	391,951	Oct. 30	2490	674	45	520
Nut-making machine.	W. H. Johnson.	380,393	Apr. 3	129	39	43	28
Nut-tapping machine.	E. N. Beecher.	377,286	Jan. 31	2267	599	42	464
Nut-tapping machine.	W. H. Eddy.	388,851	Sept. 4	69	18	44	1086

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Nut-tapping machine .....	L. Wilkinson .....	378,468	Feb. 28	1697	446	42	849
Nuts. Die for making .....	J. H. and P. H. Sternbergh .....	393,792	Dec. 4	82	23	45	1089
Nuts. Machine for counterboring and tapping .....	J. Gielow .....	376,408	Jan. 10	956	{ 250 251 }	42	191
Nuts. Machine for making .....	H. Harris .....	375,746	Jan. 3	39	11, 12	42	11
Nuts. Making .....	J. H. Burdick .....	380,243	Mar. 27	2049	{ 547 548 }	42	1381
Oar and oar-lock .....	G. K. Pheatt .....	383,244	May 22	2038	534	43	933
Oar-lock .....	W. R. Briggs .....	394,639	Dec. 18	1373	359	45	1354
Oar-lock .....	L. P. Cook .....	379,153	Mar. 6	417	118	42	1045
Oar-lock .....	W. H. Rice .....	378,722	Feb. 28	2053	542	42	920
Oar. Spring-jointed boat .....	C. G. Van Fleet .....	388,467	Aug. 28	1963	526	44	970
Oar-tip .....	J. Bross .....	392,26	Nov. 6	117	30	45	617
Oatmeal-machine .....	D. Brown .....	380,177	Mar. 27	1956	522	42	1365
Oboe or English horn .....	C. F. Müller .....	392,521	Nov. 6	503	126	45	690
Octave-coupler .....	F. Pritchard .....	381,418	Apr. 17	1680	450	43	345
Oil and garbage. Drying .....	D. E. Paynter .....	387,104	July 31	2623	690	44	541
Office-chair and operating-table. Combination .....	F. E. Graves .....	377,806	Feb. 14	722	{ 182 183 }	42	647
Office-indicator .....	R. R. Gareau .....	383,393	May 22	2250	600	43	972
Oil and gas burner .....	L. Schutte .....	391,865	Oct. 30	2366	643	45	495
Oil. Apparatus for burning crude petroleum .....	E. W. Smith .....	384,873	June 19	1552	404	43	1432
Oil. Apparatus for burning hydrocarbon .....	C. R. Seymour .....	388,507	Aug. 28	2013	541	44	980
Oil-burner .....	J. Carnes .....	394,245	Dec. 11	737	200	45	1224
Oil-burner .....	C. R. Hoopes .....	379,468	Mar. 13	878	237	42	1139
Oil-burner .....	C. H. Phelps .....	384,275	June 12	653	175	43	1255
Oil-burner .....	T. R. White .....	387,275	Aug. 7	107	29	44	593
Oil-burner. Crude .....	C. Ball .....	389,046	Sept. 4	348	92	44	1139
Oil-burner for heating purposes .....	J. L. Odell .....	392,219	Nov. 6	63	16	45	607
Oil burner. Hydrocarbon .....	W. C. Heister .....	392,802	Nov. 13	931	238	45	781
Oil-cakes. Molding-press for .....	O. P. Busbuck .....	385,094	June 26	1885	{ 481 482 }	43	1508
Oil-can .....	W. H. and W. J. Clark .....	386,689	July 24	1991	526	44	413
Oil-can .....	G. H. Courser .....	386,576	July 24	1839	486	44	383
Oil-can .....	E. G. Cushman .....	385,244	June 26	2104	539	43	1553
Oil-can .....	J. B. Herboldshimer .....	391,049	Oct. 16	1228	327	45	252
Oil-can .....	J. S. Hoy .....	378,886	Mar. 6	44	12	42	975
Oil-can .....	G. W. Lane .....	387,426	Aug. 7	333	85	44	637
Oil-can .....	G. H. Perkins .....	394,390	Dec. 11	978	257	45	1268
Oil-can .....	J. Rau .....	383,370	May 22	2218	588	43	965
Oil-can .....	E. W. Rider .....	377,639	Feb. 7	432	110	42	577
Oil-can .....	C. H. Stratton and G. L. Robertson .....	385,328	June 26	2245	575	43	1580
Oil-can .....	J. H. Sutphen .....	379,738	Mar. 20	1285	343	42	1225
Oil-can .....	F. D. Walpole .....	384,802	June 19	1433	376	43	1411
Oil-can and pump .....	E. Shobe .....	389,255	Sept. 11	701	179	44	1313
Oil-can holder .....	E. A. Duffley .....	388,348	Aug. 21	1783	476	41	930
Oil-can or other vessel .....	A. R. W. Knight .....	379,517	Mar. 13	958	258	42	1154
Oil-can tap .....	J. H. Burroughs .....	389,871	Sept. 25	1640	434	44	1406
Oil-carrying shell .....	G. A. Heath .....	379,161	Mar. 6	426	120	42	1047
Oil-cloth exhibitor and stand .....	R. W. Hildreth and J. F. Poulton .....	381,626	June 19	1179	311	43	1361
Oil-cup .....	L. B. Bailey .....	394,551	Dec. 18	1216	318	45	1325
Oil-cup .....	B. J. Downs .....	388,767	Aug. 28	2393	646	44	1052
Oil-cup .....	W. T. Mattes and J. F. Lewis .....	392,161	Oct. 30	2821	765	45	583
Oil-cup .....	J. McNaughton and A. Bardsley .....	377,435	Feb. 7	136	30	42	520
Oil-cup .....	C. H. Nunn .....	380,659	Apr. 3	527	145	43	106
Oil-cup .....	M. Potter .....	391,336	Oct. 16	1618	428	45	326
Oil-cup .....	G. G. Prefontaine .....	390,986	Oct. 9	1115	294	45	223
Oil-cup .....	E. P. Shaffer .....	377,782	Feb. 14	682	172	42	640
Oil-cup .....	W. H. Wilkinson .....	394,424	Dec. 11	1024	269	45	1276
Oil-cup for burning crude petroleum-oil .....	R. W. Smith .....	381,927	Aug. 14	1113	296	44	793
Oil. Device for burning hydrocarbon .....	G. K. Cummings .....	377,146	Jan. 31	2060	541	42	425
Oil-distributor .....	T. F. Townsend .....	389,615	Sept. 18	1241	325	44	1321
Oil-distributor .....	E. Williams .....	394,319	Dec. 11	873	230	45	1248
Oil-distributor for harbors, &c. .....	J. N. Lyle .....	393,995	Dec. 4	380	103	45	1144
Oil-distributor for ships, &c. .....	J. Ericson .....	392,792	Nov. 13	917	235	45	777
Oil-distributor for vessels. Floating .....	J. Ericson .....	380,479	Apr. 3	252	69	43	52
Oil-distributing bomb or case .....	B. Arnold .....	376,503	Jan. 17	1105	{ 289 290 }	42	226
Oil-distributing device for sea-going vessels .....	J. I. Hazard .....	380,111	Mar. 27	1870	498	42	1348
Oil during storms at sea. Distributing .....	C. H. Stebbins .....	387,324	Aug. 7	190	49	44	607
Oil-feeder .....	N. Seibert .....	379,733	Mar. 20	1280	341	42	1224
Oil-feeder .....	N. Seibert .....	387,114	July 31	2639	{ 694 695 }	44	544
Oil from feed-water. Separating .....	D. Donahue .....	386,114	July 17	1151	306	44	239
Oil from oleaginous seeds. Apparatus for extracting .....	E. T. Gennert .....	393,973	Dec. 4	350	95	45	1138
Oil from oleaginous seeds. Extracting .....	E. T. Gennert .....	393,973	Dec. 4	349	94	45	1138
Oil from the products and waste of machine-shops. Reclaiming .....	E. L. Cole .....	389,058	Sept. 4	367	96	44	1112
Oil-furnace .....	A. A. Harwood .....	383,123	May 22	1869	{ 488 489 }	43	899
Oil. Harness .....	A. S. Ashcraft .....	383,511	May 29	2449	.....	43	1014
Oil in stoves, &c. Apparatus for vaporizing and burning .....	C. A. Weiss .....	387,669	Aug. 14	715	123	44	717
Oil-press .....	M. Crawford .....	390,651	Oct. 9	631	168	45	134
Oil-press .....	N. Littell .....	392,618	Nov. 13	656	164	45	726
Oil-press box .....	G. W. Hatfield .....	376,438	Jan. 17	1010	265	42	209
Oil-press mats. Frame for use in the manufacture of .....	M. T. and J. A. Murphy .....	381,272	Apr. 17	1470	395	43	301
Oil product. Pine .....	F. S. Clark .....	390,451	Oct. 2	353	.....	45	75
Oil product. Pine .....	F. S. Clark .....	390,452	Oct. 2	354	.....	45	75
Oil. Refining .....	R. J. Wilson .....	379,090	Mar. 6	340	97	42	1029
Oil. Refining cotton-seed .....	G. W. Scollay .....	378,113	Feb. 21	1152	.....	42	740
Oil. Refining cotton-seed .....	G. W. Scollay .....	378,114	Feb. 21	1154	.....	42	740
Oil. Refining pine .....	F. S. Clark .....	390,454	Oct. 2	357	.....	45	75
Oil-tank indicator .....	F. S. Mason .....	378,330	Feb. 21	1486	388	42	800

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Oils. Apparatus for vaporizing and burning hydro-carbon	E. O. Daniels	394,343	Dec. 11	910	240	45	1255
Oils. Centrifugal apparatus for separating	A. F. Craig, A. Neilson, and J. Snodgrass.	383,707	May 29	2725	{ 718 719 }	{ 43 43 }	{ 1073 1073 }
Oils. Device for burning crude petroleum and other.	J. T. Rador	387,811	Aug. 14	919	238	44	755
Oils from crude spirits. Removing fusel.	J. Penitta	384,868	June 19	1542		43	1450
Oils, &c. Package for	C. S. Homer	380,894	Apr. 10	898	240	43	184
Oils. Refining Canadian and similar petroleum	H. Frasch	378,246	Feb. 21	1360		42	778
Oils. Refining vegetable	G. W. Scollay	377,406	Feb. 7	57		42	506
Oiler	P. D. Hay	384,762	June 19	1376	360	43	1370
Oiler. Automatic.	A. B. Griswold and J. M. Bradbury	379,643	Mar. 20	1147	{ 303 304 }	{ 42 42 }	{ 1197 1197 }
Oiler for commutators.	T. E. Craig	393,422	Nov. 27	1820	480	45	972
Oiler for self-binding reapers. Twine.	D. McCuig	391,909	Oct. 30	2432	657	45	563
Oiler. Globe-	E. McCormick	390,132	Sept. 25	9-25	539	44	1485
Oiling-can.	J. W. MacDonald	385,417	July 3	136	34	44	27
Oiling cartridge. Sea-	A. H. Walker	380,369	Apr. 3	97	29	43	22
Oiling projectile. Sea-	A. H. Walker	380,370	Apr. 3	99	30	43	22
Oiling projectile. Sea-	A. H. Walker. (Reissue)	10,958	Sept. 4	588	149	44	1182
Oiling projectile. Sea-	A. H. Walker.	390,729	Oct. 9	739	194	45	154
Oiling rags. Apparatus for.	C. Wilcock	391,670	Oct. 23	2073	{ 561 562 }	{ 45 45 }	{ 427 427 }
Oiling shells. Projector for sea-	A. H. Walker	380,371	Apr. 3	100	30	43	22
Oiling shells. Projector for sea-	A. H. Walker	381,732	Apr. 24	2148	562	43	454
Oiling shells. Projector for sea-	A. H. Walker	381,733	Apr. 24	2148	562	43	454
Ointment	A. Prochowitz	381,483	Apr. 17	1783		43	334
Oliver	W. J. Stevens	394,223	Dec. 11	723	192	45	1218
Omelets. Device for cooking and turning	M. D. Neville.	386,599	July 24	1868	493	44	329
Open-front heater	J. Huckans	388,562	Aug. 18	2089	562	41	905
Open-hearth furnace	F. Siemens	386,935	July 31	2388	{ 628 629 }	{ 44 44 }	{ 495 495 }
Open ring	J. Daniels	382,953	May 15	1588	414	43	836
Opera, field, or marine glass.	W. A. Cardwell	381,122	June 5	413	115	43	1290
Opera, field, or marine glass	W. A. Cardwell	382,851	Nov. 13	1000	257	45	775
Opera, field, or marine glass	G. H. Eaton	381,347	Apr. 17	1579	423	43	324
Opera-glass holder	A. W. Buchbinder, Jr.	389,194	Sept. 11	603	154	44	1193
Opera or school seat.	H. E. Gardiner	376,738	Jan. 24	1465	387	42	304
Operating-table and desk. Surgeon's combined.	F. L. Cowles	380,466	Apr. 10	847	229	43	175
Operating-table and desk. Surgeon's combined.	F. L. Cowles	385,545	July 3	317	82	44	64
Orange-grading device	A. Ayer	383,205	May 22	1978	520	43	921
Orange mineral and red lead. Manufacturing	A. C. Bradley	382,070	May 1	287	76, 77	43	567
Orange sizer and separator	T. Hiatt	391,711	Oct. 23	2134	{ 576 577 }	{ 45 45 }	{ 438 438 }
Oranges. Instrument for picking	C. Dnecommun	387,283	Aug. 7	118	31	44	595
Orcestrion	G. F. Wells.	387,128	July 31	2677	{ 701 702 }	{ 44 44 }	{ 548 548 }
Order-holder	J. F. Brown.	392,945	Nov. 13	1126	293	45	820
Ordinance	C. M. Van Tine.	380,368	Apr. 3	95	29	43	21
Ordinance. Breech-loading	C. C. Chamberlain	381,350	Apr. 17	1546	417	43	318
Ordinance. Breech-loading	W. H. Driggs and S. Schroeder	378,828	Feb. 28	2219	591	42	951
Ordinance. Breech-loading	B. B. Hotchkiss	381,697	Apr. 24	2094	548	43	444
Ordinance. Breech-loading	J. P. Lavigne	386,995	July 31	2472	{ 649 650 }	{ 44 44 }	{ 513 513 }
Ordinance. Breech-loading	A. Noble	377,906	Feb. 14	857	220	42	674
Ordinance. Breech-loading	T. Nordenfelt.	379,624	Mar. 6	240	68	42	1011
Ordinance. Breech-loading	C. Röstel	383,372	May 22	2219	589	43	965
Ordinance. Breech-loading	W. T. Smith	389,983	Sept. 25	1800	{ 477 478 }	{ 44 44 }	{ 1438 1438 }
Ordinance. Breech-loading	L. T. Snow	387,016	July 31	2505	658	44	519
Ordinance. Breech mechanism for	A. C. Koerner	393,436	Nov. 27	1838	484	45	975
Ordinance. Firing mechanism for	A. C. Koerner	394,190	Dec. 11	667	179	45	1207
Ordinance for land defenses. Carriage for heavy	W. J. Hoyle	381,979	May 1	130	31	43	538
Ordinance for land defenses. Mounting for heavy.	W. J. Hoyle	381,980	May 1	132	31, 32	43	539
Ordinance. Hydraulic loading and operating mechanism for	R. T. Brankston	377,924	Feb. 14	882	{ 225 226 227 228 }	{ 42 42 42 42 }	{ 678 678 678 678 }
Ordinance. Hydraulic operating mechanism for.	C. H. Murray	377,905	Feb. 14	856	{ 219 220 221 }	{ 42 42 42 }	{ 673 673 673 }
Ordinance. Hydraulic operating mechanism for breech-loading	C. H. Murray	377,904	Feb. 14	853	{ 218 219 220 }	{ 42 42 42 }	{ 672 672 672 }
Ordinance. Mechanism for operating	G. W. Rendel	392,754	Nov. 13	849	{ 217 218 }	{ 45 45 }	{ 765 765 }
Ordinance. Operating.	A. Noble	377,954	Feb. 14	929	241	42	689
Ordinance. Operating.	A. Noble	378,172	Feb. 21	1244	{ 327 328 }	{ 42 42 }	{ 756 756 }
Ordinance. Pneumatic	N. W. Pratt	381,950	May 1	72	18	43	528
Ordinance. Recoil-mounting for	A. Noble	377,326	Jan. 31	2322	{ 673 674 }	{ 42 42 }	{ 474 474 }
Ordinance, &c. Trunnion-bearing for	R. T. Brankston	378,282	Feb. 21	1419	371	42	787
Ordinance. Turret-mounting for	T. Nordenfelt.	382,182	May 1	444	116	43	595
Ore-concentrating apparatus	G. F. Gould	385,551	July 3	326	84, 85	44	66
Ore-concentrating machines. Apron for	G. E. Woodbury	381,456	Apr. 17	1745	467	43	356
Ore-concentrator	O. Campbell and W. Peet	376,853	Jan. 24	1655	{ 432 433 }	{ 42 42 }	{ 338 338 }
Ore-concentrator	W. A. Frank and T. Wicks	388,659	Aug. 28	2233	598	44	1022
Ore-concentrator	D. H. Masters	391,257	Oct. 16	1512	401	45	306
Ore-concentrator	F. B. Morse	386,552	July 24	1810	478	44	378
Ore-concentrator	C. C. Rueger	382,833	May 15	1421	372	43	802
Ore-concentrator	J. Sandon	379,418	Mar. 13	806	217	42	1125
Ore-concentrator	E. A. Wall	380,233	Mar. 27	2036	543	42	1381
Ore-concentrator	J. White	382,576	May 8	1066	272	43	723
Ore concentrator and amalgamator	J. D. Coplen	390,755	Oct. 9	777	206	45	161



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Ore-concentrators. Belt or endless apron for	I. A. Woodbury	357,964	Aug. 14	1165	316	41	891
Ore-crusher	J. M. Bryan	392,661	Nov. 13	715	{ 180 181	45	737
Ore-crusher	A. P. Granger	376,878	Jan. 24	1626	{ 410 441	42	344
Ore-crusher	C. Kaestner	377,459	Feb. 7	166	38,39	42	527
Ore-crusher	S. Kendall	378,450	Feb. 28	1669	438	42	844
Ore-crusher	R. Uren	376,928	Jan. 24	1752	461	42	357
Ore-crusher and pulverizer	L. Wimmer	380,006	Mar. 27	1721	461	42	1319
Ore-crushing machine	S. W. Kimble	381,385	Apr. 17	1635	435	43	314
Ore-feeder	T. G. Cantrell	379,099	Mar. 6	350	100	42	1031
Ore-feeder	J. C. Gibson	389,456	Sept. 11	1000	267	41	1270
Ore-feeder	F. A. Huntington	392,562	Nov. 6	560	142	45	702
Ore-feeder	E. C. Loftus	378,371	Feb. 21	1543	403	42	812
Ore-jigger	W. B. Hodgson and T. C. Safford	385,515	July 3	272	70	44	55
Ore-pulverizer	D. Barattini and W. P. Stevenson	380,843	Apr. 10	808	220	43	168
Ore-pulverizer	H. H. Eames	379,943	Mar. 27	1632	432	42	1300
Ore-pulverizer	W. McLean	377,167	Jan. 31	2089	550	42	432
Ore-Reducing	T. Michant, P. Connoy, and F. J. Wiest	389,161	Sept. 4	549	.....	44	1173
Ore-roasting furnace	A. C. Johnson	391,151	Oct. 16	1364	{ 364 365	45	278
Ore-roasting furnace	J. L. Lovell	381,629	Apr. 24	2001	525	43	424
Ore-separator	A. P. Granger	386,741	July 24	2063	{ 543 544	44	426
Ore-separator	C. C. Schill	389,323	Sept. 11	801	204	41	1232
Ore-separator	J. Talley	388,464	Aug. 28	1958	525	44	970
Ore-sizer. Hydraulic	J. Symons	390,717	Oct. 9	723	190	45	151
Ore-smelting furnace	C. W. Barry	385,229	June 26	2082	533	41	1548
Ore. Treatment of	I. Hersey and M. R. Conley	378,588	Feb. 28	1264	492	42	884
Ore-washer	A. Hendey	382,423	May 8	815	{ 208 209	43	674
Ore-washer	T. Sharp	378,626	Feb. 28	1914	{ 506 507	42	894
Ores and decomposing metallic salts. Desulphurizing.	O. B. Peck	392,456	Nov. 6	418	104	45	673
Ores and materials containing sulphur for the extrac- tion of metals and other constituents. Treatment of	R. and C. Oxland	381,809	Apr. 24	2248	.....	43	473
Ores and metallurgical products. Treating	E. H. Russell	381,849	Apr. 24	2332	.....	43	488
Ores and metallurgical products. Treating	E. H. Russell	381,850	Apr. 24	2334	.....	43	488
Ores and other materials. Machine for reducing	G. Conkling	385,596	July 3	398	102	44	78
Ores. Apparatus for chloridizing	H. H. Eames	391,360	Oct. 16	1653	437	45	332
Ores. Apparatus for examining	J. E. Williamson and W. W. Hickies	380,842	Apr. 10	807	219	43	167
Ores. Device for refining metallic	H. H. Eames	391,034	Oct. 16	1307	321	45	248
Ores. Lead-bath apparatus for working	A. M. Shields	393,454	Nov. 27	1863	491	45	981
Ores, &c. Machine for crushing or disintegrating	A. P. Granger	376,877	Jan. 24	1685	440	42	343
Ores, &c. Machine for reducing	G. and A. Raymond	387,446	Aug. 7	371	96	44	646
Ores. Reducing and smelting metallic	C. E. Manby	388,891	Sept. 4	128	.....	44	1096
Ores. Reduction of	H. Hirsching. (Reissue)	10,912	Mar. 20	1532	419	42	1284
Ores. Rotary and oscillating apparatus for distilling metallic	W. Richter and R. Lorenz	380,135	Mar. 27	1904	508	42	1354
Ores. Stack-furnace for reducing	A. T. Hay	390,964	Oct. 9	1075	285	45	217
Organ	A. Birkeland	393,666	Nov. 27	2228	{ 584 585	45	1055
Organ action. Reed	L. K. Fuller	389,698	Sept. 18	1375	{ 360 361	44	1346
Organ actions. Pitman for reed	M. Clark	394,248	Dec. 11	769	201	45	1225
Organ attachment for organs or pianos. Pedal reed-	A. Altmuth	390,051	S pt. 27	1901	{ 501 502	41	1459
Organ-case	C. H. Hubbell	387,884	Aug. 14	1027	270	44	776
Organ. Reed	M. Clark	384,699	June 19	1151	{ 304 305	43	1355
Organ. Reed	M. Clark	394,247	Dec. 11	759	201	45	1225
Organ. Reed	J. Hessler	388,490	Aug. 28	1991	535	44	976
Organ. Reed	G. R. Newman	388,499	Aug. 28	2004	539	44	978
Organ. Reed	F. Pritchard	393,312	Nov. 20	1654	437	45	932
Organ. Reed	J. A. Smith	394,218	Dec. 11	710	{ 189 190	45	1215
Organ. Reed	I. B. Taylor	382,018	May 1	208	54,55	43	552
Organ. Reed	M. S. Wright	380,071	Mar. 27	1809	483	42	1336
Organ stop-action	F. Weinbrenner	393,871	Dec. 4	208	56	45	1111
Organ stop-action. Reed	L. G. Billings	382,943	May 15	1573	{ 410 411	43	833
Organ-stop knob	M. Clark	392,990	Nov. 20	1209	314	45	842
Organs. Device for connecting motors to	F. E. Whitney	387,386	Aug. 7	282	72	44	626
Organs. Fan-tremolo for reed	A. H. Hammond	392,331	Nov. 6	225	58	45	637
Organs. Manual coupler for	J. Hessler	388,489	Aug. 28	1990	534	44	976
Organs. Mense and dust proof attachment for	A. and H. B. Marey	393,773	Dec. 4	58	16	45	1083
Organs. Pneumatic action for	I. Bassett	387,846	Aug. 14	971	253	44	766
Oscillating engine	L. Johnson	391,618	Oct. 23	2007	542	45	413
Oscillating meter	C. N. Dutton	394,561	Dec. 18	1238	{ 323 324 325	45	1330
Ottoman	C. A. Lindner	388,887	Sept. 4	122	33	44	1095
Out-house and apparatus for use therewith. Odorless, dry	T. W. Carrico	393,294	Nov. 20	1631	{ 428 429	45	927
Outline-transfer tool	F. W. Davenport and P. W. Tilling- bast	388,841	Sept. 4	46	13	44	1081
Outtrigger	A. N. Barnes	392,901	Nov. 13	1066	276	45	809
Oven	J. W. Burr	390,200	Oct. 2	6	2	45	4
Oven	L. Coke	382,073	May 1	298	78	43	568
Oven	S. Smith	384,177	June 5	498	136	43	1217
Oven	M. R. Von Pittoni	392,649	Nov. 13	699	175	45	734
Oven attachment	C. H. Harmon	381,470	Apr. 17	1764	471	43	359
Oven attachment	C. E. Hollingsworth	383,127	May 22	1874	490	43	900
Oven. Baker's	F. Dühkop	379,941	Mar. 27	1620	431	42	1299

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date	Monthly volume.		Official Gazette.	
				Spec.	Dr. et	Vol.	Page.
Oven. Baker's .....	F. Dührkop .....	380,556	Apr. 3	379	108	43	77
Oven. Baker's .....	W. C. Fowler and W. G. Schaefer ..	380,561	Apr. 3	387	110 111	43	79
Oven. Baker's .....	T. B. McFadden .....	380,339	Apr. 3	46	17	43	11
Oven for gasoline and other vapor stoves ..	N. D. Sisco .....	394,216	Dec. 11	707	188 189	45	1214
Oven for gasoline-stoves .....	W. Wells .....	386,676	July 24	1975	521	44	410
Oven. Portable .....	A. Day .....	385,919	July 10	879	232	44	180
Oven. Reel .....	C. Stewart .....	377,965	Feb. 14	945	246	42	692
Ovens. Detachable shelf and heat-regulator for ..	O. F. Frost .....	381,229	Apr. 17	1404	375	43	289
Overalls .....	C. Erlanger .....	386,240	July 17	1350	356	44	277
Overalls. Reversible .....	E. W. Brunson, Jr., and J. G. Glad- ding .....	386,422	July 17	1610	422	44	332
Overcheck crown-loop .....	H. Johnson and E. Jacobus .....	377,308	Jan. 31	2300	608	42	470
Overflow-indicator .....	M. L. Russell .....	385,825	July 10	731	191	44	150
Overseaming fabrics .....	J. M. Merrow .....	394,789	Dec. 18	1618	424	45	1404
Overshoe .....	F. D. Fry and H. W. Benedict .....	395,271	Dec. 25	2408	617	45	1560
Overshoe .....	W. Hanley .....	376,378	Jan. 10	918	241	42	185
Overshoe .....	A. B. Walters .....	384,483	June 12	949	246	43	1309
Overshoe-fastening .....	S. W. Shorey and W. S. Richardson ..	390,405	Oct. 2	295	77	45	62
Overshoe. Rubber .....	E. Forber .....	378,245	Feb. 21	1359	358	42	77
Overshoes. Device for attaching .....	N. B. Holdsworth .....	375,818	Jan. 3	126	37	42	30
Overshoes. Heel-protector for .....	W. Jungbluth .....	393,372	Nov. 27	1748	463	45	958
Overstitching the edge of fabrics. Machine for ..	J. M. Merrow .....	394,782	Dec. 18	1613	423 424	45	1404
Ox-bow key .....	W. Ware .....	380,468	Apr. 3	237	64	43	48
Oxygen. Apparatus for generating and storing ..	I. R. B. Arnold .....	393,737	Dec. 4	3	2	45	1073
Oxygen. Composition for developing ozonized ..	J. E. P. Meyer .....	392,742	Nov. 13	833		45	761
Oyster-beds. Apparatus for removing star-fish from ..	E. H. Smith .....	379,422	Mar. 13	811	218	42	1126
Oyster-dredge .....	W. Calam .....	394,333	Dec. 11	815	235	45	1253
Oyster-dredge .....	W. A. Stewart .....	382,624	May 8	1134	292	43	736
Oyster-knife .....	C. B. De Lamarre .....	396,759	Oct. 9	782	208	45	162
Oyster-spat. Obtaining .....	O. B. Beach .....	385,161	June 26	1581	507	43	1528
Oyster and preparing the same. Food .....	H. Salzer .....	384,720	June 19	1319		43	1388
Package-carrier .....	J. W. Bridwell .....	384,558	June 12	1077	281	43	1333
Package carrier, register, and rack .....	J. Meyer .....	392,128	Oct. 30	2769	752	45	574
Package comprising fragile articles .....	H. Shaw and J. A. McCulloch .....	377,644	Feb. 7	438	112	42	578
Package for butter, &c .....	L. Stevens .....	386,277	July 17	1400	369	44	287
Package for butter or similar material .....	S. Smyth .....	385,075	June 26	1864	476	43	1503
Package for containing and displaying merchandise ..	J. E. Cowles .....	387,769	Aug. 14	862	222	44	744
Package-holder .....	M. F. Hill .....	391,896	Oct. 30	2411	652	45	503
Package-register .....	W. N. Durant .....	379,106	Mar. 6	361	103	42	1033
Packet-folding machine .....	G. E. De Freest and G. W. Wyn- koop .....	377,669	Feb. 7	479	123 125	42	586
Packing .....	H. R. Gillingham .....	389,564	Sept. 18	1158	304	44	1306
Packing and barreling machine .....	D. F. Shoup .....	394,305	Dec. 11	849	225 226	45	1243
Packing-box .....	A. T. Linderman .....	379,652	Mar. 20	1158	306	42	1200
Packing-boxes. Metal strap for .....	S. C. Cary .....	388,629	Aug. 28	2188	588	44	1014
Packing-case .....	J. Davy .....	376,519	Jan. 17	1130	295	42	231
Packing-case fastening .....	N. Beckwith, Jr .....	377,477	Feb. 7	194	46	42	533
Packing for balanced valves .....	H. G. Hammett .....	382,300	May 8	633	161	43	640
Packing for condenser-tubes .....	W. E. Volz .....	376,048	July 10	1044	278	44	214
Packing for piston and valve rods. Metallic ..	J. Cockfield and C. D. Higgins .....	389,288	Sept. 11	759	192	44	1225
Packing for piston-rods .....	C. W. Mills .....	387,900	Aug. 14	1057	279	44	782
Packing for steam-cylinder pistons. Metallic ..	J. Patten .....	384,272	June 12	649	174	43	1254
Packing for stuffing-boxes. Adjustable .....	P. Thacher, M. H. and W. D. Morris ..	382,334	May 8	683	173	43	649
Packing for stuffing-boxes. Metallic .....	J. W. Hayes .....	387,591	Aug. 7	605	157	44	688
Packing granular material .....	F. R. Buck .....	387,140	July 31	2692	706	44	551
Packing. Metallic .....	P. F. Holmgren .....	386,011	July 10	994	265	44	203
Packing. Metallic .....	J. Patten .....	394,789	Dec. 18	1626	426	45	1406
Packing. Metallic .....	T. Tripp .....	391,991	Oct. 30	2550	690 691	45	531
Packing. Metallic piston .....	C. Rogers .....	393,177	Nov. 20	1453	379	45	891
Packing. Metallic rod .....	J. Murray .....	386,786	July 24	2133	560	44	439
Packing. Metallic wire .....	J. A. Prindle .....	392,931	Nov. 13	1105	286	45	815
Packing or filling. Cement .....	H. W. Johns .....	394,275	Dec. 11	801		45	1234
Packing or storing vessel .....	G. D. Corey .....	380,092	Mar. 27	1843	491	42	1343
Packing. Piston .....	M. F. Gutierrez .....	393,556	Nov. 27	2029	531	45	1015
Packing. Piston .....	M. J. Russell .....	383,253	May 22	2055	539	43	936
Packing. Piston .....	H. L. St. James .....	377,442	Feb. 7	144	32	42	522
Packing. Piston-rod .....	G. H. Crandall .....	394,156	Dec. 11	616	165	45	1199
Packing. Piston-rod .....	W. R. Ford .....	379,272	Mar. 13	589	163	42	1083
Packing. Piston-rod .....	H. Guel .....	390,225	Oct. 2	49	13	45	13
Packing pulverulent substances. Machine for ..	C. J. Mattison .....	383,136	May 22	1887	492	43	903
Packing-ring .....	J. J. Sullivan .....	389,772	Sept. 18	1476	387	44	1368
Packing-ring. Metallic .....	J. B. Deeds .....	395,217	Dec. 25	2335	597	45	1545
Packing-rings. Machine for dividing .....	O. J. Garlock .....	394,111	Dec. 4	547	146	45	1175
Packing. Rod .....	F. Pinch .....	382,187	May 1	450	117	43	596
Packing. Steam .....	F. W. Morgan .....	394,990	Dec. 25	1966	507	45	1478
Packing stuffing-boxes. Tool for .....	P. J. Smith .....	387,458	Aug. 7	383	100	44	648
Packing-vessel. Knockdown .....	J. H. J. Haines .....	393,899	Dec. 4	246	87	45	1119
Pad:							
See Abrading-pad. Multiple transfer-pad.							
Blotting-pad. Railway-rail pad.							
Collar-pad. Saddle-pad.							
Color or ink pad. Shoulder-pad.							
Harness-pad. Stirrup-pad.							
Harness back-pad. Sweat-pad.							
Hoof-pad. Truss-pad.							
Horseshoe-pad.							
Pad-fastening .....	W. H. Osmer .....	393,783	Dec. 4	70	20	45	1086
Paddle-wheel .....	W. Bryant .....	379,362	Mar. 13	719	195 196	42	1108

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Paddle-wheel	J. C. Thayer and J. Phelan	389,672	Sept. 18	1338	351	44	1339
Paddle-wheel boat	J. C. Monroe and W. H. H. Sisum	383,897	June 5	73	21	41	1135
Paddle-wheel. Feathering	A. H. Carpenter	381,674	Apr. 24	2063	539	41	437
Paddle-wheel. Feathering	R. J. Jones	384,367	June 12	798	208	43	1279
Paddle-wheel. Feathering	C. P. Thresher	376,687	Jan. 17	1386	365	42	279
Paddle-wheel. Submerged	R. Kirsch	392,346	Nov. 6	253	64	45	642
Paddle-wheels. Feathering	D. J. Blasier	385,232	June 26	2086	531	43	1549
Padlock	M. W. Fraim	385,799	July 10	694	181	41	113
Padlock	J. Friedmann	389,215	Sept. 11	628	160	44	1198
Padlock	W. F. Troast	386,510	July 24	1746	462	44	366
Padlock	D. and J. Waive	380,961	Apr. 10	995	261	43	202
Padlock. Combination	E. L. Drake	379,508	Mar. 13	943	254	42	1151
Padlock. Combination	J. E. Spencer and J. C. Sanders	378,736	Feb. 28	2067	545	42	922
Padlock. Permutation	E. Kauffeld	394,119	Dec. 4	557	149	45	1177
Padlock. Permutation	T. P. Owen	391,066	Oct. 16	1252	333	45	257
Paging-machine	J. McAdams	378,607	Feb. 28	1886	499	42	889
Pail. Chamber	G. W. Stilson	381,180	Apr. 17	1338	357	43	276
Pail. Commode	G. W. Lisk	393,991	Dec. 4	375	102	45	1143
Pail-cover fastening	C. F. Loomis	379,797	Mar. 20	1377	366	42	1241
Pail. Dinner	F. G. O. Ehle	385,257	June 26	2130	543	43	1558
Pail. Lunch	C. M. and L. N. Thayer	376,119	Jan. 10	552	147	42	117
Pail. Milk	N. Cordy	392,500	Nov. 6	476	120	45	685
Pail. Milk	M. A. Van Alstine	394,034	Dec. 4	431	116	45	1153
Pail or commode. Slop	H. Carter and L. Augustin	392,182	Nov. 6	10	3	45	596
Pail. Sheet-metal	F. A. Walsh	380,151	Mar. 27	1924	513	42	1359
Pails. Cover for strainer	S. E. Forman	380,318	Apr. 3	16	4	43	6
Paint	H. Burnett	378,226	Feb. 28	2218		42	951
Paint	F. M. Reed	394,396	Dec. 11	989		45	1270
Paint. Asbestos	F. De Coninck	389,641	Sept. 18	1283		44	1328
Paint-burner. Vapor	M. L. Hull	391,745	Oct. 23	2177	588	45	447
Paint-can press	W. C. Williams	379,190	Mar. 6	463	131	42	1055
Paint compound	J. Browning	389,497	Sept. 11	1053		44	1279
Paint compound	A. M. French	394,566	Dec. 18	1254		45	1332
Paint-cup	N. Ilaway	377,306	Jan. 31	2297	608	42	470
Paint. Fire-proof	G. S. Lee	388,886	Sept. 4	122		44	1095
Paint for coating ships	E. L. Kitchingman	377,810	Feb. 14	726		42	648
Paint-kegs. Fixed stopple for	J. A. Seaman	389,253	Sept. 11	699	178	44	1213
Paint. Marine	E. A. W. Dahl	389,875	Sept. 25	1646		44	1408
Paint-mill	J. Briggs	385,441	July 3	163	44	44	34
Paint-mill	A. J. Gaston	383,352	May 22	2193	579	43	961
Paint-oil	E. F. Titecomb and C. H. Peters	389,946	Sept. 25	1747	580	44	1428
Paint-press	R. C. Hopkins, H. Coventry, P. Neymann, and J. C. Beardslee	379,464	Mar. 13	874	226	42	1138
Paint. Roof	G. J. Matson	387,240	Aug. 7	60		44	583
Paint. Roof	J. B. Washburn	394,318	Dec. 11	872		45	1218
Paint-vehicle	H. Borgmann	387,488	Aug. 7	436		44	656
Paint-vehicle	W. A. Johnson	393,763	Dec. 4	43		45	1080
Paint. Water-proof	M. Fred	380,795	Apr. 10	744		43	156
Paints, &c. Manufacturing the oxides of readily-oxidizable metals for	A. C. Bradley	382,133	May 1	377	98, 99	43	582
Painter's combination pot-hook	L. Kent	376,825	Jan. 24	1609	421	42	329
Painter's hook	J. B. Hopper	383,883	June 5	50	16	43	1130
Painter's stage	C. D. Bowyer and W. H. Caspersen	382,252	May 1	552	140	43	615
Painting-machine	H. P. Dugan	387,346	Aug. 7	219	57	44	613
Pan:							
See Bake-pan.	Fry-pan.						
Baking-pan.	Frying-pan.						
Bed-pan.	Leer-pan.						
Cake or pie pan.	Locomotive ash-pan.						
Confection-pan.	Scale-pan.						
Dust-pan.	Toasting-pan.						
Evaporating-pan.	Vacuum-pan.						
Freezing-pan.							
Pan	E. W. Mesereau	383,652	May 29	2647	700	43	1056
Pans. Body-wire and handle for dish	J. B. Melloy	377,632	Feb. 7	422	107	42	575
Paneling-machine	J. A. Dann	383,711	May 29	2732	720	43	1074
Pantaloon	H. T. Caulet	382,030	May 1	226	59	43	555
Pantaloon or garment stretcher	W. W. Atkinson	384,492	June 12	966	252	43	1312
Pantaloon-supporter	C. Voorhis	391,726	Oct. 23	2151	582	45	442
Pants-protector and pull-strap for shoes. Combined.	W. H. Stewart	383,500	May 29	2436	646	43	1012
Pants-stretcher and garment-supporter	W. H. Kanflman and W. F. Mercer	387,518	Aug. 7	473	125	44	665
Pants-supporter	A. E. Magoris	387,090	July 31	2605	685	44	537
Pantry. Portable	H. M. Ramey	381,641	Apr. 24	2013	528	43	427
Paper and twine holder	J. G. McBride	381,155	Apr. 17	1304	348	43	271
Paper. Apparatus for coloring	A. A. Yerkes	395,257	Dec. 25	2388	611	45	1556
Paper. Apparatus for feeding	J. J. Allen	390,277	Oct. 2	107	30, 31	45	25
Paper bag	D. Appel	378,487	Feb. 28	1717	453	42	855
Paper bag	D. Appel	388,614	Aug. 28	2169	583	44	1011
Paper bag	D. Appel	389,353	Sept. 11	839	214	44	1241
Paper bag	R. A. Cooney	394,757	Dec. 18	1560	408	45	1393
Paper bag	F. W. Leinbach	390,607	Oct. 2	567	150	45	114
Paper bag	F. W. Leinbach	391,804	Oct. 30	2280	618	45	478
Paper bag	F. W. Leinbach	391,805	Oct. 30	2281	618	45	478
Paper bag	W. A. Lorenz	380,263	Mar. 27	2073	554	42	1389
Paper bag	W. A. Lorenz	380,264	Mar. 27	2074	555	42	1389
Paper bag	F. M. McCulla	392,964	Nov. 13	1154	300	45	824
Paper-bag holder	J. Cochran	386,964	July 31	2429	638	44	504

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Paper-bag holder .....	W. M. Nix .....	387,729	Aug. 14	811	210	44	734
Paper-bag machine .....	W. A. Lorenz and W. H. Houiss .....	377,314	Jan. 31	2305	670	42	471
Paper bags. Apparatus for and method of making ..	L. D. Benner .....	382,682	May 15	1224	{ 317 318 319 }	43	763
Paper bags. Machine for the manufacture of .....	C. F. Schmidt .....	378,851	Feb. 28	2259	601	42	958
Paper bags. Making .....	D. Appel .....	388,612	Aug. 28	2166	{ 581 582 583 }	44	1010
Paper bags. Making .....	D. Appel .....	388,613	Aug. 28	2168	{ 582 583 }	44	1011
Paper bags. Manufacture of .....	C. F. Schmidt .....	378,896	Feb. 28	1773	468	42	866
Paper barrel .....	A. Brab .....	388,113	Aug. 21	1101	476	44	857
Paper barrel .....	W. W. Judd .....	395,236	Dec. 25	2361	604	45	1530
Paper barrels. Machine for molding .....	J. F. Seiberling .....	388,079	Aug. 21	1345	{ 362 363 }	44	847
Paper. Bluing .....	G. H. Weiss .....	384,804	June 19	1436	377	43	1412
Paper-board machine .....	J. M. McCausland .....	383,744	May 29	2781	732	43	1083
Paper box .....	K. J. Collins .....	380,861	Apr. 10	837	237	43	173
Paper box .....	J. F. Diemer and P. E. Gonon .....	389,367	Sept. 11	863	223	44	1245
Paper box .....	C. W. Elliott .....	380,748	Apr. 10	665	184	43	142
Paper box .....	F. N. Forster .....	391,955	Oct. 30	2497	676	45	521
Paper box .....	C. J. Hasbrouck .....	391,743	Oct. 23	2174	587	45	446
Paper box .....	W. B. Howe .....	384,038	June 5	290	81, 82	43	1176
Paper box .....	J. W. Morgan .....	393,655	Nov. 27	2183	572	45	1045
Paper box .....	B. Osborn .....	383,537	May 29	2496	659	43	1033
Paper box .....	T. F. W. Schmidt .....	377,640	Feb. 7	432	110	42	577
Paper box .....	A. H. Zugalla .....	381,050	Apr. 10	1138	304	43	289
Paper-box-covering machines. Cut-off attachment for ..	H. Inman .....	376,096	Jan. 10	520	139	42	111
Paper-box-covering machines. Cutting-off device for ..	C. E. Clute .....	393,964	Dec. 4	336	91	45	1136
Paper-box-covering machines. Paper-cutting attachment for ..	J. A. Clark .....	392,313	Nov. 6	194	50, 51	45	631
Paper box. Folding .....	D. J. Rex .....	385,478	July 3	212	56	44	43
Paper-box-making machine .....	A. L. Pickett .....	389,407	Sept. 11	922	{ 241 242 243 }	44	1256
Paper-box-making machinery .....	M. E. Brigham .....	390,442	Oct. 2	343	91	45	72
Paper-box machines, &c. Register for .....	E. L. Steele .....	375,781	Jan. 3	82	25	42	20
Paper box or pail .....	S. E. Baker .....	377,977	Feb. 14	902	251	42	695
Paper boxes. Machine for making and printing tubes or shucks for ..	G. M. Griswold .....	387,953	Aug. 14	1151	{ 310 311 }	44	801
Paper-boxes. Machine for staying the angles of .....	C. W. Hobbs .....	379,162	Mar. 6	427	{ 120 121 }	42	1047
Paper. Cabinet for roll wrapping .....	J. H. Earl .....	392,502	Nov. 6	477	120	45	685
Paper-calendering machine .....	C. E. Torrance .....	394,522	Dec. 11	1162	303	45	1301
Paper-clip .....	J. W. Alderidge .....	392,394	Nov. 6	327	81	45	656
Paper-clip .....	J. W. King .....	381,702	Apr. 24	2101	550	43	445
Paper clip and punch. Combined .....	J. C. Jensen .....	377,031	Jan. 31	1897	499	42	392
Paper-cutter .....	E. R. Booth and J. R. Williams .....	394,451	Dec. 11	1059	{ 275 276 }	45	1282
Paper-cutter .....	G. H. Clarke .....	387,621	Aug. 14	651	168	44	704
Paper-cutter .....	J. A. Eastin .....	394,476	Dec. 11	1694	284	45	1229
Paper-cutter .....	L. Ehrlich .....	388,651	Aug. 28	2221	596	44	1020
Paper-cutter .....	L. Ehrlich .....	390,073	Sept. 25	1932	509	44	1466
Paper-cutter .....	L. Ehrlich .....	390,954	Oct. 9	1056	279	45	213
Paper-cutter .....	L. Ehrlich .....	391,305	Oct. 16	1581	419	45	319
Paper-cutter .....	L. Ehrlich .....	392,016	Oct. 30	2587	704	45	538
Paper-cutter .....	L. Ehrlich .....	392,416	Nov. 6	354	88	45	661
Paper-cutter .....	L. Ehrlich .....	392,790	Nov. 13	916	234	45	777
Paper-cutter .....	L. Ehrlich .....	392,857	Nov. 13	1610	27	45	797
Paper-cutter .....	L. Ehrlich .....	393,626	Nov. 27	2140	559	45	1036
Paper-cutter .....	L. Ehrlich .....	393,627	Nov. 27	2141	559	45	1036
Paper-cutter .....	L. Ehrlich .....	393,628	Nov. 27	2142	559	45	1037
Paper-cutter .....	L. Ehrlich .....	393,629	Nov. 27	2142	560	45	1037
Paper-cutter .....	L. Ehrlich .....	393,630	Nov. 27	2143	560	45	1037
Paper-cutter .....	L. Ehrlich .....	393,631	Nov. 27	2141	560	45	1037
Paper-cutter .....	L. Ehrlich .....	393,632	Nov. 27	2144	560	45	1037
Paper-cutter .....	L. Ehrlich .....	394,063	Dec. 4	481	128	45	1163
Paper-cutter .....	W. H. Golding .....	385,803	July 10	703	{ 182 183 }	44	145
Paper-cutter .....	C. K. Pickles .....	389,483	Sept. 11	1035	276	44	1276
Paper-cutter .....	W. H. Tivy and L. Ehrlich .....	392,895	Nov. 13	1057	273	45	807
Paper-cutter, envelope-moistener, and rubber. Combined ..	T. W. Fish .....	390,579	Oct. 2	535	140	45	108
Paper cutter. Roll .....	J. A. Eastin .....	394,104	Dec. 4	538	144	45	1173
Paper cutter. Roll .....	E. L. Knopp .....	394,121	Dec. 4	560	150	45	1178
Paper cutter. Toilet .....	H. H. Harrison .....	380,018	Sept. 25	1847	490	44	1448
Paper cutter. Toilet .....	C. R. Williamson .....	386,570	July 24	1833	484	44	382
Paper-cutters. Means for operating .....	W. F. Hill .....	379,784	Mar. 20	1355	361	42	1239
Paper cutting and folding machine. Combined .....	J. H. Stonemetz .....	376,052	Jan. 3	453	{ 120 121 122 }	42	91
Paper-cutting machine .....	H. Barth and E. Lietze .....	390,151	Sept. 25	2051	{ 548 549 }	44	1491
Paper-cutting machine .....	C. Beck .....	383,692	May 29	2698	713	43	1066
Paper-cutting machine .....	G. Broussier .....	376,025	Jan. 3	420	{ 111 112 }	42	84
Paper-cutting machine .....	J. P. Browne .....	393,535	Nov. 27	2004	524	45	1009
Paper-cutting machine .....	C. B. Cottwell .....	391,949	Oct. 30	2489	673	45	519
Paper-cutting machine .....	E. P. Donnell .....	383,714	May 29	2738	{ 721 722 }	43	1075
Paper-cutting machine .....	C. Koegel .....	391,750	Oct. 23	2182	589	45	449
Paper device. Roll-writing .....	C. H. Mitchamore .....	391,379	Oct. 16	1684	445	45	338
Paper-drying machine .....	A. A. Simonds .....	378,266	Feb. 21	1392	365	42	783
Paper-fastener .....	J. C. Jensen .....	377,029	Jan. 31	1895	498	42	392

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Paper-fastener .....	J. C. Jensen .....	377,032	Jan. 31	1898	499	42	392
Paper-fastener. Gummed .....	J. M. Jones .....	282,813	May 15	1397	367	43	737
Paper-fasteners. Inserter or needle for .....	J. C. Jensen .....	377,030	Jan. 31	1896	498	42	332
Paper-fasteners. Machine for making .....	R. J. Shipley .....	390,315	Oct. 2	157	44	45	35
Paper-fastening-setting tool .....	T. C. McCollom .....	393,915	Dec. 4	270	74	45	1123
Paper-feeder .....	A. Sedgwick .....	387,112	July 31	2635	{ 693 } { 691 }	{ 41 } { 41 }	{ 513 } { 513 }
Paper-feeder .....	A. Sedgwick, W. Womersley, and R. J. Brown .....	391,087	Oct. 16	1281	312	45	262
Paper feeding and cutting device .....	C. Kahler and L. E. Brookes .....	380,288	Mar. 27	2105	563	42	1325
Paper-feeding machine .....	G. H. Davis .....	387,582	Aug. 7	592	{ 154 } { 155 }	{ 41 } { 41 }	{ 685 } { 685 }
Paper-finishing roll .....	J. D. Pickles .....	387,693	Aug. 14	757	193	41	724
Paper. Fly .....	F. J. Bosse .....	391,014	Oct. 16	1175	312	45	212
Paper-folder .....	L. E. Brookes .....	389,192	Sept. 11	600	154	44	1193
Paper-folding machine .....	C. Chambers, Jr. ....	386,296	July 17	1426	{ 376 } { 377 }	{ 44 } { 44 }	{ 292 } { 292 }
Paper-folding machine .....	W. Downing .....	377,354	Jan. 31	2374	686	42	482
Paper-folding machine .....	W. Hill .....	379,098	Mar. 20	1229	327	42	1214
Paper for carpet-linings, &c. Folded .....	A. Gibb .....	379,571	Mar. 20	1045	278	42	1178
Paper for wrapping metallic articles to prevent tarnishing, &c. Preparing .....	J. C. Pennington .....	380,515	Apr. 3	322		43	66
Paper-gunning machine .....	J. J. Allen .....	386,863	July 31	2283	600	41	475
Paper-hanging clamp .....	J. F. McAfee .....	387,792	Aug. 14	890	250	41	770
Paper-holder .....	A. B. Sherwood .....	389,606	Sept. 18	1230	322	44	1319
Paper-holder .....	C. W. Sherwood .....	382,623	May 8	1133	292	41	756
Paper holder and cutter .....	T. C. Eberhardt .....	3 2 668	Nov. 13	725	181	45	739
Paper holder and cutter .....	E. Haiman .....	383,506	Sept. 11	1665	283	41	1382
Paper holder and cutter .....	S. D. Locke .....	287,362	Aug. 7	242	62	41	618
Paper holder and cutter .....	J. Reynolds .....	381,281	Apr. 17	1482	398	43	304
Paper holder and cutter .....	J. Reynolds .....	390,189	Sept. 25	2108	552	41	1592
Paper holder and cutter. Roll .....	P. Bakewell .....	390,334	Oct. 2	189	51	45	41
Paper holder and cutter. Roll .....	E. R. Booth and J. R. Williams .....	379,444	Mar. 13	839	227	42	1192
Paper holder and cutter. Roll .....	J. G. Henderson .....	391,609	Oct. 23	1394	538	45	410
Paper holder and cutter. Roll .....	S. D. and N. W. Locke .....	389,582	Sept. 18	1189	311	41	1112
Paper holder and cutter. Roll .....	J. Zerr .....	389,277	Sept. 11	737	187	41	1220
Paper holder and cutter. Roll .....	J. Zerr .....	393,956	Dec. 4	325	88	45	1134
Paper holder and cutter. Wrapping .....	W. H. Bartels .....	390,942	Oct. 9	1041	275	45	211
Paper-holder for duplicating devices .....	R. J. Wallace .....	388,326	Aug. 21	1755	469	41	925
Paper holder. Roll .....	H. N. King .....	383,578	May 20	2543	672	41	1033
Paper-holding spindle .....	S. Powell .....	380,592	Apr. 3	431	132	43	88
Paper in the web. Apparatus for filigraining .....	S. J. Timokowitsch .....	394,630	Dec. 4	426	{ 114 } { 115 }	{ 45 } { 45 }	{ 1152 } { 1152 }
Paper-knife and stamp-holder. Combined .....	B. Rice .....	379,415	Mar. 13	803	216	42	1125
Paper-leather-board, &c. Compound for making .....	C. E. Haynes .....	377,072	Jan. 31	1958		42	404
Paper-leather-board. Machine for making .....	C. E. Haynes .....	377,071	Jan. 31	1957	514	42	404
Paper-machine .....	C. H. Campbell .....	393,538	Nov. 27	2008	{ 524 } { 525 }	{ 45 } { 45 }	{ 1010 } { 1010 }
Paper. Machine for cutting into strips and reeling .....	E. Brissaut .....	375,728	Jan. 3	10	2, 3	42	5
Paper. Machine for folding and pasting sheets of .....	C. Chambers, Jr., and W. Mendham .....	386,295	July 17	1423	{ 375 } { 376 }	{ 44 } { 44 }	{ 291 } { 291 }
Paper-machine frame .....	G. Kaftenberger .....	389,576	Sept. 18	1177	309	44	1310
Paper-machines. Renewing strainer-plates for .....	F. Williams .....	381,737	Apr. 24	2152	563	43	455
Paper-machines. Screening apparatus for .....	J. Fleming .....	392,023	Oct. 30	2597	706	45	540
Paper-machines. Stuff-regulator for .....	L. E. Smith .....	394,306	Dec. 11	852	226	45	1243
Paper. Machinery for feeding sheets of .....	H. D. and D. W. Swift .....	386,440	July 17	1631	{ 429 } { 430 }	{ 44 } { 44 }	{ 337 } { 337 }
Paper. Machinery for perforating toilet or wrapping .....	S. Wheeler .....	390,327	Oct. 2	178	48	45	38
Paper-making machines. Section-box for .....	J. D. and W. F. Pickles .....	384,276	June 12	651	175	43	1255
Paper. Manufacture of .....	T. J. Pearce and M. W. Beardsley .....	378,520	Feb. 28	1761		42	864
Paper. Manufacture of perforated wrapping or toilet .....	S. Wheeler .....	390,328	Oct. 2	179	49	45	38
Paper or other material. Fastener or holder for .....	C. M. Durnil .....	377,824	Feb. 14	742	188	42	650
Paper pads. Manufacture of .....	C. Johnson .....	391,975	Oct. 30	2528		45	527
Paper pails. Manufacturing .....	E. Hubbard .....	389,964	Sept. 25	1767	469	44	1433
Paper, paper bags, &c. Suspending-holder for .....	S. B. Palmer .....	381,412	Apr. 17	1674	448	43	343
Paper-pulp. Apparatus for drying .....	J. H. Lorimer .....	393,770	Dec. 4	53	15	45	1082
Paper-pulp. Apparatus for removing metallic particles from .....	C. H. Atkins .....	393,348	Nov. 27	1712	453	45	951
Paper receptacle .....	W. E. Crum .....	394,158	Dec. 11	618	{ 165 } { 166 }	{ 45 } { 45 }	{ 1199 } { 1199 }
Paper receptacle .....	O. H. Hicks .....	381,134	Apr. 17	1276	311	43	265
Paper receptacle .....	O. H. Hicks .....	381,135	Apr. 17	1277	342	43	265
Paper receptacle .....	O. H. Hicks. (Reissue) .....	10,929	May 15	1820	476	43	879
Paper-reel .....	H. T. Wilson .....	388,236	Aug. 21	1605	429	44	896
Paper-roll holder .....	H. S. Lane .....	390,084	Sept. 25	1957	520	44	1471
Paper-rolls. Adjustable expansion-spool for .....	C. W. Taylor and A. M. Wickens .....	390,719	Oct. 9	726	191	45	152
Paper-rolls. Stand and cutting-knife for .....	J. M. Bolton .....	386,622	July 24	1896	501	44	396
Paper-service machine. Roll .....	K. O. St. John .....	384,877	June 19	1558	405	43	1433
Paper. Sheathing .....	T. Manahan .....	388,700	Aug. 28	2297	617	44	1031
Paper-slitting machine .....	W. C. Edwards .....	392,262	Nov. 6	125	32	45	618
Paper-stock. Apparatus for making .....	J. D. Tompkins .....	394,031	Dec. 4	427	116	45	1153
Paper-testing machine .....	E. Mill .....	377,361	Jan. 31	2384	{ 688 } { 689 }	{ 42 } { 42 }	{ 494 } { 494 }
Paper. Toilet .....	C. D. Chase .....	391,582	Oct. 23	1959	529	45	403
Paper. Toilet or wrapping .....	S. Wheeler .....	386,618	July 24	1891	499	44	395
Paper tubes. Machine for making .....	R. A. Sentman .....	377,643	Feb. 7	435	{ 111 } { 112 }	{ 42 } { 42 }	{ 578 } { 578 }
Paper tubes. Machine for making .....	C. S. Tainter .....	388,462	Aug. 28	1954	{ 523 } { 524 }	{ 44 } { 44 }	{ 969 } { 969 }
Paper vessel .....	T. F. W. Schmidt .....	382,559	May 8	1036	264	43	717
Paper vessels. Machine for forming .....	A. J. Grinnell .....	385,553	July 3	328	85	44	66
Paper-waxing machine .....	C. E. Haynes .....	394,268	Dec. 11	792	{ 210 } { 211 }	{ 45 } { 45 }	{ 1231 } { 1231 }

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Paper-weight and pen, pencil, or cigar holder. Combined	G. L. Tuller	377,726	Feb. 7	558	143	42	600
Papers. Device for stringing and filing	W. E. Elam	381,351	Apr. 17	1585	425	43	325
Papers, &c. Return-packet for the transmission of.	W. B. Nolley	385,197	June 26	2035	521	43	1538
Papeterie	J. Hertz	376,954	Jan. 24	1787	469	42	304
Parcel-carrier. Electro-magnetic	M. C. Mengis	384,775	June 19	1396	365	43	1404
Parcel-clasp	W. S. Rock	387,737	Aug. 14	819	212	44	736
Parer. Apple	W. A. C. Oaks	379,324	Mar. 13	670	181	42	1098
Parer. Apple	F. R. Williams	381,044	Apr. 10	1124	302	43	227
Parers. Slicing and coring knife for apple	C. E. Hudson	377,106	Jan. 31	2015	528	42	414
Paring, coring, and slicing machine. Apple	B. D. Tabor	383,922	June 5	117	34	43	1143
Paring machines. Fork for fruit	W. A. C. Oaks	382,549	May 8	1019	260	43	713
Passenger mileage-recorder	S. M. West	387,936	Aug. 11	1123	300	44	796
Passenger-register	T. F. Hanly	384,572	June 12	1225	287	43	1337
Paste. Adhesive	M. W. Marsden	376,445	Jan. 17	1025	288	42	212
Pasting and folding machine	W. Mendham	392,048	Oct. 30	2635	716	45	548
Pasting apparatus	W. A. Lorenz and W. H. Honiss	385,064	June 26	1846	717	43	1499
Pattern: See Casting-pattern. Gauntlet-pattern.							
Draw-bar pattern.							
Patterns for garments. Adjustable device for outlining	A. Wachter	384,926	June 5	128	37, 38	43	1145
Patterns for garments. Apparatus for marking out.	F. C. Noar	385,944	July 10	913	243	44	187
Patterns for garments. Making	F. X. Ledoux	385,637	July 3	461	119	44	90
Pavement	W. Bignell	382,683	May 15	1228	319	43	764
Pavement	C. H. Hoyt	383,528	May 29	2,78	654	43	1019
Pavement	J. R. Pomroy	384,074	June	346		41	1187
Pavement and floor light	J. C. French	394,260	Dec. 11	781	207	45	1229
Pavement. Artificial	J. W. MacKnight	387,308	Aug. 7	167	41	44	603
Pavement. Artificial	J. W. MacKnight	389,932	Sept. 25	1729	458	44	1425
Pavement. Artificial-stone	F. F. Gibford	378,000	Feb. 14	996	260	42	701
Pavement. Artificial-stone	J. W. MacKnight	389,311	Sept. 11	787	300	44	1229
Pavement. Concrete	A. L. Barber	391,222	Oct. 16	1464		45	298
Pavement. Concrete	G. A. Bayard	381,667	Apr. 24	2052		43	435
Pavement-curb	I. L. Landis	389,391	Sept. 11	962	235	41	1252
Pavement-curbbing	T. R. Weber	390,322	Oct. 2	168	46, 47	45	37
Pavement-light	H. Resley	379,127	Mar. 6	385	110	42	1038
Pavements. Block for concrete	E. Dorr	391,775	Oct. 30	2242	610	45	469
Pavements. Construction of	I. L. Landis	388,694	Aug. 28	2286	614	41	1032
Pavements. Construction of artificial-stone or concrete	P. H. Jackson	375,999	Jan. 3	374	100	42	76
Pavements. Laying artificial	J. W. MacKnight	387,724	Aug. 14	805	208	44	733
Pavements. Laying artificial	J. W. MacKnight	393,568	Nov. 27	2043	535	45	1018
Paving and roofing compound	A. Walrath	376,172	Jan. 10	639		42	134
Paving-block	R. I. Cowden	381,341	Apr. 17	1572	422	43	323
Paving-block	S. M. Hoyt	394,770	Dec. 18	1595	418	45	1401
Paving, &c. Block for	F. M. Pickering	379,027	Mar. 6	247	70	42	1012
Paving-blocks, &c. Composition of matter for	C. E. Coffin	379,942	June 5	151		43	1149
Paving, &c. Clay-block for	J. G. Anderson	379,926	Mar. 27	1600	423	42	1296
Paving. Composition of matter for	H. Busse	376,290	Jan. 10	797		42	163
Paving. Composition of matter for	G. S. Lee	392,614	Nov. 13	651		45	726
Paving compound. Vulcanite	W. C. Murdock	394,126	Dec. 4	567		45	1179
Paving. Making artificial or elastic bitumen for	H. Busse	376,289	Jan. 10	797		42	163
Paving streets and roads	P. Griffin	382,153	May 1	404	106	43	587
Pawl-and-ratchet coupling for bit-braces, &c.	H. N. Parker	384,865	June 19	1538	400	43	1430
Pawl-and-ratchet mechanism	R. J. Ballew	376,467	Jan. 17	1052	275	42	216
Pay device	D. W. Bundy	390,342	Oct. 2	200	53	45	42
Pea hulling and separating machine. Green	R. P. Scott	387,318	Aug. 7	181	47, 48	44	606
Pea-sheller	W. Hollingsworth and H. R. Travers	390,125	Sept. 25	2015	537	44	1483
Pea-sheller and separator	W. A. Slappey	386,612	July 24	1883	497	44	393
Pea-shelling machine	R. Karges	382,988	May 15	1635	428	43	844
Peas. Machine for shelling	S. Wilson	394,630	Dec. 18	1356	354	45	1351
Peanut-roaster	T. Lee	378,256	Feb. 21	1379	360	42	780
Peat-machine	P. H. Bracher	392,492	Nov. 6	466	117	45	683
Peat-machine	J. A. Yeadon and R. Middleton	392,770	Nov. 13	882	225	45	771
Peat. Treating	S. Heimann	378,395	Feb. 21	1572		42	818
Peeler. Orange	C. H. Porter	379,328	Mar. 13	676	183	42	1069
Pegging-jack	J. H. Hodskinson	392,121	Oct. 30	2761	750	45	572
Pegging-machine	E. E. Bean	380,674	Apr. 10	561	154	43	122
Pegging-machine	J. R. Pronty	383,909	June 5	95	28	43	1139
Pen	J. J. Lond	392,046	Oct. 30	2632	716	45	547
Pen	J. W. Wise	379,433	Mar. 13	826	223	42	1129
Pen and holder. Fountain	F. S. Bartram	380,014	Mar. 27	1732	465	42	1321
Pen blanks. Machine for cross-rolling the nibs of gold	E. Wiley	390,934	Oct. 9	1032	272	45	209
Pen cleaner and holder	J. Edson	380,650	Apr. 3	512	143	43	104
Pen. Drawing	J. E. Miller	394,202	Dec. 11	684	183	45	1210
Pen-extractor	W. G. Collins	386,455	July 24	1661	438	44	351
Pen. Fountain	J. Blair	386,448	July 24	1651	435	44	349
Pen. Fountain	O. F. Grant	394,171	Dec. 11	635	170	45	1202
Pen. Fountain	D. W. Lapham	376,778	Jan. 24	1535	404	42	317
Pen. Fountain	G. Pellinger	381,417	Apr. 17	1679	450	43	344
Pen. Fountain	F. A. Robinson and A. I. Smith	387,450	Aug. 7	374	97	44	646



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Pen. Fountain.....	L. A. Shattuck.....	390,039	Sept. 25	1883	497	44	1156
Pen. Fountain.....	W. W. Stewart.....	376,760	Jan. 24	1125	394 395	12	309
Pen. Fountain.....	W. W. Stewart.....	378,986	Mar. 6	180	51	42	1001
Pen. Fountain.....	W. W. Stewart.....	378,987	Mar. 6	183	51	42	1001
Pen. Fountain.....	J. T. Wilcox.....	393,049	Nov. 20	1286	333	45	859
Pen. Fountain ruling.....	J. G. Zwicker.....	394,634	Dec. 18	1364	357	45	1352
Pen-holder.....	J. A. Kimball.....	379,789	Mar. 20	1362	363	42	1341
Pen-holder.....	F. B. Poupert.....	389,527	Sept. 11	1092	290	41	12-7
Pen-holder.....	W. W. Stewart.....	381,179	Apr. 17	1336	357	43	276
Pen-holder.....	W. A. Taylor.....	387,378	Aug. 7	272	69	44	624
Pen-holder.....	L. L. Tower.....	378,223	Feb. 24	1316	349	42	771
Pen-holder.....	C. F. Warner.....	384,101	June 5	377	106	43	1193
Pen holder and fountain. Combined.....	R. M. Billings.....	390,555	Oct. 2	507	133	45	102
Pen-holder. Electric.....	C. W. Reitter.....	381,953	May 1	78	19	43	529
Pen-holder. Perforated.....	F. M. Libby.....	383,185	May 22	1951	512	41	916
Pen-holder. Reservoir.....	I. Leutner.....	387,686	Aug. 14	746	191	44	722
Pen or lead holder.....	U. Bohren.....	387,042	July 31	2532	666 667	44	521
Pen or pencil holder and pin. Combined.....	S. F. Stewart.....	387,187	July 31	2762	723	41	563
Pen. Pig.....	M. C. and Z. S. Randleman.....	391,858	Oct. 30	1357	640	45	493
Pen. Reservoir.....	A. Hommel.....	394,183	Dec. 11	158	176	45	1206
Pen. Ruling.....	E. A. Hopkins.....	391,849	Oct. 30	2346	637	45	490
Pen. Telegraphic.....	H. P. Copeland.....	379,368	Mar. 13	734	200	42	1110
Pen. Writing.....	C. Seabaugh.....	391,199	Oct. 16	1433	383	45	292
Pens. Fountain and feed attachment for writing.....	J. H. Koenig.....	389,156	Sept. 4	541	136	41	1172
Pens. Manufacture of gold.....	E. Wiley.....	390,933	Oct. 9	1030	272	45	209
Pens or tubes. Filling device for fountain.....	R. C. Rutherford and F. S. Bartram.....	378,524	Feb. 28	1768	468	42	865
Pens. Packing and guard for stylographic.....	R. H. Disney.....	385,448	July 3	173	46	44	35
Pens, pencils, &c. Ear-rack for.....	J. Graham.....	375,743	Jan. 3	35	10	42	10
Pencil.....	J. F. Dodd.....	378,084	Feb. 21	1109	290	42	731
Pencil.....	O. Mussinan, Jr.....	382,488	May 8	925	235	43	691
Pencil.....	O. Mussinan, Jr.....	386,891	July 31	2324	611	44	481
Pencil.....	O. Mussinan, Jr.....	386,892	July 31	2325	611	44	481
Pencil.....	L. B. Myers.....	384,383	June 12	820	213	41	1281
Pencil case.....	T. B. de Forest.....	393,965	Dec. 4	338	91	45	1136
Pencil. Copying.....	C. Walpuski.....	376,456	Jan. 17	1638	.....	42	214
Pencil-holder.....	O. Bussler.....	381,612	Apr. 24	1979	520	43	420
Pencil holder.....	O. Bussler.....	392,536	Nov. 6	526	132	45	695
Pencil-holder.....	C. De Meyer.....	377,194	Jan. 31	2121	559	42	458
Pencil holder.....	B. A. Fiske.....	393,426	Nov. 27	1823	481	45	972
Pencil-holder.....	A. Myers.....	378,897	Mar. 6	55	16	42	977
Pencil-holder.....	L. B. Myers.....	386,787	July 24	2134	561	44	439
Pencil holder. Lead.....	O. Bussler.....	381,611	Apr. 24	1977	520	43	420
Pencil holder. Slate.....	L. P. Fodrea.....	378,783	Feb. 28	2133	561	42	935
Pencil-leads. Automatic holder for.....	G. R. Sandell.....	394,016	Dec. 4	409	110	45	1149
Pencil-leads, &c. Holder for.....	C. W. Boman.....	388,015	Aug. 21	1244	338	41	820
Pencil or crayon holder. Lead.....	O. A. Weissenborn.....	385,781	July 10	674	176	41	139
Pencil or pin case.....	A. B. Chase.....	378,768	Feb. 28	2112	558	42	931
Pencil. Propeller.....	J. Hoffman.....	381,877	Apr. 24	2373	617	43	496
Pencil-rack and eyeglass-book. Combined.....	J. Graham.....	381,692	Apr. 24	2087	546	43	442
Pencil rubber-holder.....	J. Hoffman.....	376,196	Jan. 10	668	177	42	138
Pencil-sharpener.....	I. Baloun.....	380,417	Apr. 3	160	45	43	33
Pencil-sharpener.....	C. W. Boman.....	382,132	May 1	376	98	43	582
Pencil sharpener.....	L. P. Normandin.....	394,002	Dec. 4	3-8	105	45	1146
Pencil-sharpener.....	P. Petry.....	382,437	May 8	836	214	43	678
Pencil-sharpener.....	T. H. Stafford.....	390,410	Oct. 2	299	78	45	61
Pencil-sharpener.....	W. N. Wheelers.....	377,974	Feb. 14	958	250	42	695
Pencil-sharpener and ink-eraser. Combined.....	H. Edgerton.....	391,522	Oct. 23	1879	505	45	326
Pencil sharpener. Lead.....	G. H. Coursen.....	388,533	Aug. 28	2051	552	44	988
Pencil sharpener. Lead.....	T. H. Stafford.....	378,117	Feb. 21	1158	301	42	741
Pencil sharpener. Slate.....	T. J. Manning.....	378,329	Feb. 21	1486	358	42	800
Pencils. Addition-register for.....	H. C. Rose.....	380,519	Apr. 3	325	93	43	66
Pencils and the like. Rubber-tip attachment for.....	F. E. Cross.....	381,563	June 12	1084	383	43	1334
Pencils. Compass attachment for.....	M. Hanower.....	376,379	Jan. 10	919	241	42	155
Pencils. Eraser-holder for.....	J. Hoffman.....	383,357	May 22	2200	581	43	962
Pencils. Machine for the manufacture of crayon.....	J. W. Peck.....	381,810	Apr. 24	2250	588	43	473
Pencils or crayons. Composition of matter for marking.....	C. M. Regna.....	394,937	Dec. 18	1879	.....	45	1152
Pencils. Rubber-tip attachment for.....	L. S. Bacon.....	379,844	Mar. 20	1162	387	42	1239
Pencils. Safety-tip for.....	J. M. Schofield.....	390,038	Sept. 25	1883	497	41	1156
Pendant-setting.....	J. T. Joyce.....	384,629	June 19	1184	312	43	1361
Perambulators. Steering device for.....	C. R. Gorman and C. J. Fletcher.....	377,102	Jan. 31	2010	526 527	42	411
Percolator.....	J. W. Evans.....	381,062	Apr. 10	1154	308	43	232
Perforated glass.....	L. and A. Appert.....	376,814	Jan. 24	1643	430	43	335
Perforating and cycling machine.....	G. B. Webb.....	384,597	June 12	1330	298	43	1343
Perforating cones. Machine for.....	E. Moreau.....	392,130	Oct. 30	2771	752 753	45	574
Perforating machine.....	E. P. Donnell.....	379,379	Mar. 13	748	203	42	1113
Perforating-machine.....	F. P. Rosback.....	387,543	Aug. 7	522	135 136	44	673
Perforator.....	J. Whitelaw.....	380,614	Apr. 3	461	131	43	94
Perfumery-stand.....	J. C. Austin.....	380,473	Apr. 3	246	67	43	50
Permutation-lock.....	J. C. Barr.....	385,828	June 26	2076	531 532 533	43	1517
Permutation-lock.....	C. Hill.....	389,703	Sept. 18	1382	362	44	1318
Permutation-lock.....	G. E. Hyatt.....	394,273	Dec. 11	799	212	45	1233
Permutation-lock.....	C. A. and S. E. Johannesen.....	387,769	Aug. 14	887	229	44	749
Permutation-lock.....	W. A. Lawrence.....	387,307	Aug. 7	165	44	44	602
Permutation-lock.....	W. F. Peters.....	384,468	June 12	929	241	41	1306
Permutation-lock.....	J. A. Porter.....	394,009	Dec. 4	400	167	45	1147
Permutation-lock.....	T. S. Spivey.....	390,528	Oct. 2	467	132	45	94

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Pr. &c.	Vol.	Page.
Pessary	C. C. Sharp	395,008	Dec. 25	1993	514	45	1483
Petroleum and other liquid hydrocarbons. Apparatus for burning.	J. W. Budd	391,018	Oct. 16	1180	313	45	242
Petroleum-burner	C. V. Fleetwood	392,021	Oct. 30	2594	706	45	540
Petroleum-burner	C. V. Fleetwood	392,022	Oct. 30	2595	706	45	540
Petroleum-engine	A. Spiel	377,666	Feb. 14	795	203 204	42	661
Petroleum-engine	A. Spiel	393,127	Nov. 20	1385	361 362	45	878
Petroleum-motor	V. List and J. Kosakoff	378,328	Feb. 21	1483	387 388	42	800
Petroleum. Refining	C. F. Thuman	389,988	Sept. 25	1810	479	44	1441
Phonogram-blank	T. A. Edison	382,418	May 8	810	207	43	673
Phonogram-blank	T. A. Edison	382,462	May 8	884	225	43	666
Phonogram-blanks. Machine for making	T. A. Edison	393,463	Nov. 27	1777	494	45	933
Phonogram-blanks. Machine for making	T. A. Edison	393,464	Nov. 27	1878	494	45	933
Phonogram-blanks. Making	T. A. Edison	382,417	May 8	809	206	43	673
Phonogram-blanks. Making	T. A. Edison	393,462	Nov. 27	1876	494	45	933
Phonograms. Duplicating	T. A. Edison	382,419	May 8	811	207	43	674
Phonograph	T. A. Edison	386,974	July 31	2441	643	44	507
Phonograph	E. T. Gilliland	393,640	Nov. 27	2156	564	45	1040
Phonograph-recorder	T. A. Edison	393,466	Nov. 27	1881	494	45	984
Phonograph-recorder	T. A. Edison	393,968	Dec. 4	343	13	45	1137
Phonograph-recorder	T. A. Edison	394,105	Dec. 4	539	144	45	1174
Phonograph recording-surfaces. Preparing	T. A. Edison	393,465	Nov. 27	1879	494	45	984
Phonograph-reproducer	T. A. Edison	394,106	Dec. 4	541	145	45	1174
Phonographs. Burnishing attachment for	T. A. Edison	382,414	May 8	804	205	43	672
Phonographs. Feed and return mechanism for	T. A. Edison	382,416	May 8	808	206	43	673
Photographic notation	J. S. Campbell	395,120	Dec. 25	2165	558	45	1517
Phosphorus trichloride. Apparatus for obtaining.	C. Fahlberg	381,685	Apr. 24	2078	543	43	440
Photogenic powder	H. G. Piffard	384,927	June 19	1620	43	44	1445
Photograph-burnisher	W. G. C. Kimball	379,314	Mar. 13	658	178	42	1096
Photograph-case	P. T. Kavanagh	392,563	Nov. 6	562	142	45	702
Photograph-exhibitor	E. S. Miller	394,498	Dec. 11	1122	201	45	1294
Photograph-exhibitor	G. M. Porteous and F. S. Miller	379,522	Mar. 13	962	260	42	1155
Photograph-exhibitor	J. J. Sloan	392,992	Nov. 6	166	43	45	625
Photograph-holder	J. McAfferty	381,154	Apr. 17	130	348	43	270
Photograph-mount	I. E. Foltz	386,874	July 31	2295	604	44	478
Photographs, pictures, &c. Frame for	H. Pattberg	388,712	Aug. 28	2313	622	44	1037
Photographs. Rubbing-down device for mounting	C. S. Howland	375,820	Jan. 3	128	37	42	30
Photographer's kit	W. J. M. Dobson	379,377	Mar. 13	745	202	42	1113
Photographic accessory	J. C. Gombor	377,556	Feb. 7	310	79	42	554
Photographic and other lenses. Diaphragm and shutter for	E. Bausch	382,858	May 15	1454	322	43	809
Photographic apparatus	J. Baynes	389,808	Sept. 25	1636	433 434	44	1405
Photographic apparatus	W. H. Lewis	379,964	Mar. 27	1653	440 441	42	1305
Photographic apparatus	M. J. Steffens	394,221	Dec. 11	720	191	45	1217
Photographic bath	A. Anderson	386,571	July 21	1834	481	44	382
Photographic bath. Mechanical	H. Ford	385,607	July 3	413	105 106	44	81
Photographic burnishing-machine	A. H. Humphrey	388,681	Aug. 28	2365	668	44	1027
Photographic cabinet	F. A. Garrison	384,751	June 19	1363	357	43	1397
Photographic camera	J. E. Blackmore	392,663	Oct. 30	2570	698 699	45	534
Photographic camera	W. H. Fuller	391,236	Oct. 16	1485	395	45	301
Photographic camera	W. H. Fuller	393,696	Nov. 27	2241	588	45	1057
Photographic camera	W. C. Gibbs	394,353	Dec. 11	921	243	45	1258
Photographic camera	W. H. Lewis	386,996	July 31	2475	650	44	513
Photographic camera	F. H. Patterson	378,973	Mar. 6	155	45	42	997
Photographic camera	T. S. Rust	382,735	May 15	1295	340	43	777
Photographic camera	H. Swain	384,940	June 19	1635	425	43	1448
Photographic camera	J. E. Thornton	379,343	Mar. 13	694	188	42	1103
Photographic camera and plate holder. Combined	J. A. Davison	376,798	Jan. 24	1568	412	42	323
Photographic-camera stand	J. E. Blackmore	390,199	Oct. 2	5	1	45	4
Photographic cameras. Finder for	W. Harkness	385,513	July 3	271	69	41	55
Photographic cameras. Fly-shutter for	W. H. Fuller	392,194	Nov. 6	28	7	45	600
Photographic cameras. Shading-hood for	T. W. Mann	387,092	July 31	2606	685	41	538
Photographic cameras. Shutter mechanism for	M. Flammang	377,554	Feb. 7	308	79	42	554
Photographic cameras. Snap-shutter for	J. T. Tonks	386,877	July 31	2273	508	41	473
Photographic copying process	G. Bay	394,437	Dec. 11	1042	45	1279	
Photographic dark-chamber	E. H. Riedel	380,136	Mar. 27	1905	508	42	1355
Photographic developing-box. Portable	T. W. Harvey	385,264	June 26	2139	515	43	1560
Photographic emulsion. Manufacturing supports for	F. H. Froedman	386,066	July 10	928	41	202	
Photographic film	E. E. Ellis	385,797	July 10	692	44	143	
Photographic flash-light apparatus	T. H. McCollin	384,630	June 19	1193	315	43	1364
Photographic head-screen	O. C. White	382,125	May 1	367	96	43	581
Photographic image on a gelatine surface into a relief or intaglio. Converting a	H. Sutton	381,091	Apr. 10	1210	43	243	
Photographic impressions. Producing uncolored and colored	J. J. E. Mayall	382,369	May 8	739	43	659	
Photographic pictures. Making	A. A. Hart	376,802	Jan. 24	1573	42	324	
Photographic-plate holder	H. Coppin	376,181	Jan. 10	648	173	42	135
Photographic-plate holder	G. Eastman	388,271	Aug. 21	1669	416	41	909
Photographic-plate holder	M. Flammang	384,835	June 19	1496	389	43	1422
Photographic-plate holder	W. H. Fuller	376,983	Jan. 24	1824	479	42	371
Photographic-plate holder	A. G. Tisdell	386,987	July 31	2350	617	44	488
Photographic plates. Apparatus for heating, cooling, ventilating, and drying	W. Bell	384,416	June 12	864	225	43	1293
Photographic-print register	J. W. Aldridge	387,841	Aug. 14	964	250	44	765
Photographic-printing frame	L. F. Adt	376,840	Jan. 24	1638	428	42	335
Photographic-printing frame	L. F. Adt	381,315	Apr. 17	1328	412	43	314
Photographic-printing frame	W. H. Fuller	386,876	July 31	2300	604	44	478

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Photographic-printing frame.....	J. Strachan.....	380,639	Apr. 3	493	138	43	101
Photographic printing in fatty inks.....	C. Raymond.....	377,498	Feb. 7	226	55	42	539
Photographic sheet.....	I. Cohn.....	385,297	June 26	2197		43	1570
Photographic shutter.....	F. M. Spaulding.....	385,483	July 3	227	58	41	45
Photographic-tray holder.....	L. F. Adt.....	375,912	Jan. 3	216	67	42	51
Photographing apparatus. Automatic electric.....	E. N. Bliss and J. F. Middleton.....	378,426	Feb. 28	1624	427	42	844
Photographing by artificial light. Apparatus for.....	F. B. Gould.....	384,151	June 5	452	126	43	1209
Physical power, displaying advertisements, and delivering small articles. Coin-controlled apparatus for testing.....	J. M. O'Kelly.....	393,719	Nov. 27	2268	595	45	1062
Piano.....	F. G. Smith.....	385,380	July 3	59	17	41	14
Piano-action.....	J. W. Cooper.....	394,251	Dec. 11	763	202	45	1225
Piano-action.....	S. Harcourt.....	376,477	Jan. 17	1065	279	42	219
Piano-action.....	S. R. Harcourt.....	384,129	Apr. 17	1272	340	43	264
Piano-action.....	J. McDonald.....	386,079	July 10	1068	292	41	222
Piano-action.....	J. C. Price.....	395,078	Dec. 25	2091	542	45	1504
Piano-action. Upright.....	P. Krumnscheid.....	384,917	June 19	1608	418	43	1443
Piano-action. Upright.....	F. Zebrowski.....	389,183	Sept. 4	584	148	44	1181
Piano-caso.....	R. M. Bent.....	389,436	Sept. 11	971	259	41	1265
Piano-case.....	A. F. Delano.....	385,172	June 26	1993	511	43	1530
Piano-case. Upright.....	C. C. Hudson.....	390,169	Sept. 25	2081	555	41	1497
Piano-forte.....	J. McDonald.....	386,080	July 10	1090	293	41	223
Piano-forte.....	J. P. Richardson.....	388,308	Aug. 21	1729	462	44	920
Piano-forte.....	J. P. Richardson.....	388,720	Aug. 28	2321	624	44	1039
Piano-forte action.....	S. R. Harcourt.....	384,254	June 12	623	168	43	1250
Piano-forte attachment.....	F. J. Blithner, Jr.....	395,029	Dec. 25	2017	521	45	1488
Piano-forte bridge.....	W. H. Ivers.....	389,966	Sept. 25	1770	470	44	1433
Piano-forte, organ, harmonium, or other musical instrument.....	E. A. Locke.....	382,481	May 8	917	232	43	693
Piano-forte pin for balance-rails.....	W. A. Church.....	395,264	Dec. 25	2398	614	45	1558
Piann key-bottom.....	W. H. Ivers.....	382,471	May 8	899	229	43	689
Piano-mover.....	W. S. Reynolds.....	383,190	May 22	1956	513	43	917
Piano-pedal.....	O. Lestina.....	392,737	Nov. 13	827	210	45	760
Piano-pedal manual attachment.....	H. R. Moore.....	391,181	Oct. 16	1410	377	45	287
Piano. Upright.....	W. H. Dutton.....	384,241	June 12	599	162	43	1246
Piano. Upright.....	W. H. Dutton.....	384,242	June 12	602	163	43	1247
Piano. Upright.....	W. H. Dutton.....	384,243	June 12	603	163	43	1247
Piano. Upright.....	W. H. Dutton.....	384,244	June 12	606	163	43	1247
Pianos. Automatic cylinder for.....	A. Capra and G. B. Rissone.....	384,121	June 5	412	111	43	1199
Pianos. Damper for.....	W. H. Ivers.....	392,270	Nov. 6	136	34	45	620
Pianos. Damper for upright.....	W. Umland.....	391,495	Oct. 23	1845	494	45	378
Pianos. Device for beating out.....	E. Q. Norton.....	393,024	Nov. 20	1249	324	45	851
Pianos. Lamp-supporting device for upright.....	G. S. Roberts.....	376,452	Jan. 17	1034	271	42	213
Pianos. Music-rack attachment for upright.....	H. Ziegler.....	378,486	Feb. 28	1716	453	42	855
Pianos. Music-rack for.....	B. W. Howard.....	393,562	Nov. 27	2036	533	45	1017
Pianos or organs. Touch-regulating rail for.....	H. Brooks.....	391,940	Oct. 30	2477	670	45	517
Pianos. Pianissimo-pedal for.....	F. Feiling.....	387,503	Aug. 7	453	119	44	661
Picker-stems. Constructing.....	G. N. Todd.....	388,797	Aug. 28	2432	657	44	1060
Picket-pointing machine.....	J. J. McFadden.....	391,628	Oct. 23	2021	546	45	416
Pickets and balusters. Pattern for.....	S. D. Riegel.....	386,034	July 10	1026	272	44	210
Pickets, shingles, or similar articles. Machine for pointing.....	N. A. Acuff.....	393,875	Dec. 4	213	57	45	1112
Picking and carding machines. Feeding mechanism for.....	L. F. Dickerson and H. Tindell.....	392,722	Nov. 13	805	205	45	756
Picture and mirror backs. Board for.....	J. Apoll.....	382,852	May 15	1445	380	43	308
Picture-exhibitor.....	A. H. Beck.....	380,977	Apr. 10	1023	267	43	207
Picture-frame.....	E. Dietrich.....	388,027	Aug. 21	1260	342	41	832
Picture-frame.....	E. Erschell.....	387,779	Aug. 14	875	225	44	747
Picture-frame.....	F. W. Lowe.....	377,567	Feb. 7	324	83	42	557
Picture-frame support.....	F. Servus.....	380,671	Apr. 3	550	150	43	111
Picture-hook.....	C. R. Fay.....	393,062	Nov. 20	1301	338	45	861
Pictures. Device for hanging.....	J. B. Sword.....	394,144	Dec. 4	595	160	45	1185
Pictures, &c. Line or cord for suspending.....	G. Hookham.....	387,975	Aug. 14	1179	320	44	806
Pictures. Making.....	D. Isaacson.....	395,234	Dec. 25	2358	616	45	1549
Pictures of natural scenery and life. Method of and apparatus for producing animated.....	A. Lo Prince.....	376,247	Jan. 10	740	197	42	152
Pie-fork.....	H. S. Earle.....	392,261	Nov. 6	124	32	45	618
Pie-guard. Pastry.....	L. Lucas.....	385,683	July 3	522	136	44	102
Pie-plate lifter.....	A. L. Pomeroy.....	387,731	Aug. 14	813	210	44	734
Pie-plates and similar pans. Guard for.....	F. P. Huff.....	380,116	Mar. 27	1878	500	42	1349
Pig-nursery.....	J. P. Butler.....	394,955	Dec. 25	1908	493	45	1467
Pigs' feet. Machine for cleaning.....	W. Archdeacon.....	385,336	July 3	1	1	44	3
Pigeon-trap.....	J. J. King.....	381,386	Apr. 17	1636	435	43	335
Pile.....	S. G. Hutchinson.....	383,881	June 5	51	16	43	1131
Pile-driving and well-drilling machine. Combined.....	F. M. Gray.....	376,474	Jan. 17	1061	278	42	218
Pile-driving attachment.....	T. O'Connell.....	391,267	Oct. 16	1531	406	45	309
Pile fabric. Cut.....	T. I. Shuttleworth.....	391,652	Oct. 23	2052	555	45	423
Piles. Preserving.....	C. C. Lano.....	383,531	May 29	2187	656	43	1021
Piles. Protecting.....	G. Brown.....	381,671	Apr. 24	2057	538	43	436
Piles. Protecting and preserving.....	C. C. Lano.....	383,736	May 29	2169	730	43	1090
Piling and substructure. Metal.....	S. W. Robinson.....	377,332	Jan. 31	2335	677	42	476
Pill-machine.....	J. A. McFerran.....	387,002	July 31	2183	652	44	515
Pill or lozenge machine.....	G. A. Smith.....	385,326	June 26	2239	574	43	1578
Pills, &c. Device for holding and dipping.....	J. B. Russell.....	389,485	Sept. 11	1027	277	44	1277
Pillow.....	J. R. Cluxton.....	391,300	Oct. 16	1576	418	45	318
Pillow and its slip.....	W. T. Doreans.....	395,043	Dec. 25	2047	526	45	1492
Pillow-block.....	D. A. Cameron.....	394,056	Dec. 4	474	126	45	1122
Pillow. Sham.....	L. Buntrock.....	378,952	Mar. 6	128	37	42	991
Pillow. Sham.....	W. M. Skelton.....	387,603	Aug. 7	623	162	44	692
Pillow. Sham.....	M. J. Stevenson.....	389,987	Sept. 25	1809	479	41	1440

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Pillow-sham and screen holder.....	E. H. Rose.....	392,933	Nov. 13	1106	257	45	816
Pillow-sham holder.....	F. E. Clark.....	378,867	Mar. 6	11	3	43	960
Pillow-sham holder.....	J. W. Dorst.....	384,239	June 12	596	162	44	1245
Pillow-sham holder.....	E. S. Hemmenway and G. F. Stratton.....	378,396	Feb. 21	1573	412	42	818
Pillow-sham holder.....	W. Watson.....	380,964	Apr. 10	1000	256	43	203
Pillow-sham holder and lifter.....	D. C. King.....	383,304	May 22	2132	563	43	949
Pin:							
<i>See</i> Clothes-pin.....	Lace-pin.....						
Crank-pin.....	Printing-press gage-pin.....						
Hair-braid pin.....	Safety-pin.....						
Husking-pin.....	Thill coupling-pin.....						
Pin.....	B. A. Ballou.....	392,302	Nov. 6	179	46	45	627
Pin for neck-wear.....	G. Schrade.....	376,047	Jan. 3	448	119	42	90
Pin or match box and advertising-card. Combined.....	J. W. Hunter and J. A. Mackay.....	389,814	Sept. 18	1535	406	44	1380
Pinch-bar.....	A. Stockdale.....	388,461	Aug. 28	1953	523	44	969
Pinchers.....	W. E. White.....	385,030	June 26	1785	461	43	1488
Pinchers and hammer. Combined shoe-maker's.....	J. Knell.....	393,014	Nov. 20	1237	321	45	848
Pinchers. Grubbing.....	J. M. Ricketson.....	381,581	Apr. 24	1926	507	43	410
Pinchers. Shoe-maker's.....	J. Knell.....	379,476	Mar. 13	889	239	42	1141
Pinion-blanks. Manufacture of.....	F. Leman.....	380,499	Apr. 3	287	82	43	58
Pinion-cutting machine.....	F. Leman.....	377,945	Feb. 14	919	83	42	687
Pipe:							
<i>See</i> Blast-pipe.....	Smoking-pipe.....						
Blow-pipe.....	Sprinkling or spraying pipe.....						
Boiler-feed pipe.....	Stove-pipe.....						
Grain-pipe.....	Tobacco-pipe.....						
Sheet-metal pipe.....							
Pipe and pipe-fittings.....	P. Gleich, H. S. Krause, and R. J. Clewery.....	392,265	Nov. 6	129	33	45	619
Pipe-coils. Appliance for cleaning.....	F. Farrar.....	382,147	May 1	396	103	43	586
Pipe-collar.....	E. P. Waggoner.....	386,671	July 24	1969	519	44	410
Pipe conduit. Underground.....	T. J. Young.....	384,948	June 19	1649	428	43	1451
Pipe-connection.....	S. E. Thomas.....	390,821	Oct. 9	839	230	45	178
Pipe connection. Roof cast-iron soil.....	J. T. Fitzpatrick.....	378,360	Feb. 21	1527	399	42	609
Pipe-connections. Nipple for.....	R. Parish.....	392,221	Nov. 6	66	16	45	607
Pipe-coupling.....	J. Armstrong.....	376,130	Jan. 10	578	154	42	121
Pipe-coupling.....	S. H. Barrett.....	387,336	Aug. 7	203	33, 54	44	610
Pipe-coupling.....	G. H. Benjamin.....	376,061	Jan. 10	470	126	42	101
Pipe-coupling.....	A. Coté.....	383,865	June 5	22	8	43	1125
Pipe-coupling.....	J. Davis.....	381,913	May 1	22	6	43	519
Pipe-coupling.....	J. Davis.....	382,514	May 8	963	243	43	702
Pipe-coupling.....	S. R. Dresser.....	381,916	May 1	26	7, 8	43	519
Pipe-coupling.....	S. R. Dresser.....	389,797	Sept. 18	1515	400	41	1376
Pipe-coupling.....	D. M. Legat.....	390,240	Oct. 2	64	18	45	16
Pipe-coupling.....	D. W. Magee.....	379,798	Mar. 20	1378	366	42	1244
Pipe-coupling.....	J. Norton and W. A. Millar.....	393,120	Nov. 20	1377	359	45	876
Pipe-coupling.....	J. G. Pfister.....	382,107	May 1	344	91	43	576
Pipe-coupling.....	B. W. Poh.....	384,073	June 5	345	97	43	1186
Pipe-coupling.....	A. H. Rowand.....	378,150	Feb. 21	1215	316	42	750
Pipe-coupling.....	J. S. Stewart and F. Stone.....	385,148	June 26	1967	503	43	1524
Pipe-coupling.....	J. Story.....	381,966	May 1	97	23	43	533
Pipe-coupling.....	J. Story.....	385,287	June 26	2182	558	43	1568
Pipe-coupling.....	L. T. White.....	377,130	Jan. 31	2043	535	42	421
Pipe-coupling.....	A. Wilbur.....	376,458	Jan. 17	1040	272	42	214
Pipe-coupling.....	F. M. Wilder.....	385,740	July 10	611	158	44	127
Pipe-coupling and check valve or chamber. Combined.....	W. T. Messinger.....	383,428	May 22	2314	613	43	982
Pipe-coupling. Automatic.....	J. F. McElroy.....	384,991	June 26	1719	441	43	1473
Pipe-coupling. Detachable.....	G. H. Griffin.....	391,314	Oct. 16	1591	422	45	321
Pipe-coupling. Detachable.....	W. M. Harris and A. B. Smith.....	386,881	July 31	2307	607	44	479
Pipe-coupling ferrule.....	R. Clarke.....	371,946	Oct. 30	2183	672	45	518
Pipe-coupling. Flexible.....	P. M. Askren.....	379,628	Mar. 20	1128	299	42	1193
Pipe-coupling. Flexible.....	R. Bodycomb.....	388,112	Aug. 21	1400	376	44	856
Pipe-coupling. Flexible.....	R. Bodycomb.....	393,139	Nov. 20	1400	366	45	881
Pipe-coupling. Flexible.....	J. H. Gould.....	381,008	Apr. 10	1070	284	43	216
Pipe-coupling sleeves. Mandrel for welding.....	R. W. Gordon.....	386,132	July 17	1163	309	44	122
Pipe-coupling. Steam.....	H. and G. Knaub.....	378,932	Mar. 6	103	29, 30	42	986
Pipe coupling. Steam and air.....	J. W. Carter.....	391,117	Oct. 16	1320	352	45	269
Pipe coupling. Steam or other.....	P. Jacobson.....	392,032	Oct. 30	2608	709	45	542
Pipe-covering.....	H. W. Johns.....	385,119	June 26	1925	491	43	1516
Pipe-cutter.....	R. D. Locke.....	386,205	July 17	1271	340	44	264
Pipe-cutter.....	G. G. Thompson.....	377,725	Feb. 7	557	143	42	600
Pipe cutting and threading tool. Combined.....	A. Saunders.....	380,937	Apr. 10	957	254	43	195
Pipe-expander.....	G. C. Van Keuren.....	381,094	Apr. 10	1217	326	43	245
Pipe-expander.....	H. Wojan.....	377,507	Feb. 7	246	59	42	542
Pipe expander and cutter.....	S. A. Ross.....	384,080	June 5	352	99	41	1188
Pipe for steam-circuits. Return.....	W. Burnham.....	394,823	Dec. 18	1677	438	45	1415
Pipe-hanger.....	P. N. Kenway.....	376,480	Jan. 17	1069	280	42	220
Pipe-hanger.....	G. W. Lutz.....	382,171	May 1	429	112	43	592
Pipe-hanger.....	H. Trask.....	379,425	Mar. 13	815	219	42	1127
Pipe-hooks. Making.....	H. Lilley.....	390,491	Oct. 2	412	106	45	84
Pipe into rings and sections. Apparatus for cutting clay.....	R. W. Lyle.....	393,308	Nov. 20	1646	434	45	930
Pipe-joint.....	A. Berryhill.....	393,684	Nov. 27	2225	583	45	1054
Pipe-joint.....	M. C. Bowers.....	377,988	Feb. 14	974	254	42	698
Pipe-joint.....	F. J. Garnier and N. Curé.....	390,770	Oct. 9	801	213	45	165
Pipe-joint.....	T. McSweeney.....	393,381	Nov. 27	1763	467	45	961

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Pipe-joint .....	G. H. Thynne .....	393,673	Nov. 27	2210	579	45	1051
Pipe-joint. Spherical .....	H. W. Brinckerhoff .....	381,826	Apr. 24	2293	596	43	480
Pipe-joint. Universal .....	H. Fenton .....	379,947	Mar. 27	1628	597	42	1301
Pipe-joints. Tool for forming cold-packed .....	A. N. Rankin .....	376,609	Jan. 17	1256	433	42	255
Pipe. Machine for making multitubular .....	J. H. Walsh .....	395,095	Dec. 25	2115	329	45	1509
Pipe. Mechanism for the manufacture of .....	T. J. Bray .....	382,453	May 8	869	330	43	653
Pipe mold. Cement .....	L. G. Haase .....	386,979	July 31	2452	547	44	509
Pipe-molding apparatus .....	A. H. McNeal and W. A. Stineruck .....	383,534	May 29	2491	644	43	1022
Pipe or hose coupling .....	J. C. Sturgeon .....	380,363	Apr. 3	89	645	43	20
Pipe or tube coupling .....	W. Martin .....	386,547	July 24	1803	27	44	376
Pipe raising or lowering device .....	L. Boore .....	375,985	Jan. 3	355	445	42	72
Pipe-riveting machine .....	G. Cumming .....	382,142	May 1	389	95	43	585
Pipe-sections. Uniting .....	A. L. Murphy .....	376,750	Jan. 24	1481	101	42	307
Pipe-stom .....	E. H. Rogers .....	381,170	Apr. 17	1327	102	43	274
Pipe-testing apparatus .....	O. G. Guss .....	394,974	Dec. 25	1942	354	45	1473
Pipe-testing apparatus .....	G. W. Lutz .....	382,172	May 1	429	500	43	592
Pipe-testing apparatus .....	G. W. Lutz and J. M. Dillon .....	382,266	May 1	569	112	43	618
Pipe-thimble .....	E. Converse .....	390,003	Sept. 25	1827	144	44	1444
Pipe-thimble .....	A. T. Matthews .....	379,482	Mar. 13	902	484	42	1143
Pipe-thimble .....	A. T. Matthews .....	379,483	Mar. 13	903	244	42	1144
Pipe-thimble .....	J. J. Schaab .....	386,166	July 17	1224	244	44	255
Pipe-threading die .....	F. Virgin .....	383,787	May 29	2863	327	43	1097
Pipe-threading die-stock .....	D. C. Beane .....	393,457	Nov. 27	1870	752	45	981
Pipe-threading die-stock .....	H. Brown .....	390,444	Oct. 2	346	492	45	73
Pipe. Transportation-case for coiled lead .....	H. J. Millar .....	384,327	June 12	733	91	43	1269
Pipe, tube, or shell extractor .....	W. T. Scott .....	381,791	June 19	1416	194	43	1408
Pipe-welding apparatus .....	T. J. Bray .....	382,452	May 8	867	372	43	683
Pipe-welding ball .....	J. Norton and W. P. Gilbert .....	387,315	Aug. 7	176	221	44	604
Pipe-welding ball .....	A. M. Saunders .....	387,659	Aug. 14	702	46	44	714
Pipe-well coupling .....	M. T. Chapman .....	378,234	Feb. 21	1346	189	42	775
Pipe-wrench .....	B. F. Chappell .....	385,595	July 3	397	355	41	78
Pipe-wrench .....	J. Clark .....	377,668	Feb. 7	479	101	42	585
Pipe-wrench .....	R. Copland .....	382,799	May 15	1382	123	43	793
Pipe-wrench .....	C. H. H. French .....	395,046	Dec. 25	2040	362	45	1493
Pipe-wrench .....	J. A. Giles .....	391,957	Oct. 30	2500	527	45	521
Pipe-wrench .....	T. F. Krueger .....	379,519	Mar. 13	959	258	42	1154
Pipe-wrench .....	H. Parmelee .....	379,123	Mar. 6	381	44	42	1037
Pipe-wrench .....	D. R. Porter .....	376,396	Jan. 10	959	108	42	188
Pipe-wrench .....	D. R. Porter .....	389,899	Sept. 25	1685	246	44	1415
Pipe-wrench .....	B. Reagan .....	389,666	Sept. 18	1329	444	44	1337
Pipe-wrench .....	J. Rose .....	383,544	May 29	2507	348	43	1025
Pipe-wrench .....	J. Rose .....	390,402	Oct. 2	292	662	43	62
Pipe-wrench .....	G. G. Smith .....	382,391	May 8	775	76	43	666
Pipe-wrench .....	D. B. Whitehill .....	388,607	Aug. 28	2158	197	44	1009
Pipe-wrench .....	A. R. Wygle .....	380,672	Mar. 27	1812	579	42	1336
Pipes and boilers. Covering for steam .....	P. Carey .....	388,260	Aug. 21	1636	481	42	906
Pipes and similar materials. Apparatus for treating .....	H. G. Beatley .....	377,597	Feb. 7	365	412	42	565
Pipes and traps. Cleaning soil .....	T. A. Crowley .....	390,210	Oct. 2	23	94	45	8
Pipes. Anti-freezing device for water .....	W. G. Browne .....	382,588	May 8	1084	23	43	727
Pipes. Anti-freezing device for water .....	E. A. Newman .....	389,098	Sept. 4	427	279	44	1154
Pipes. Anti-freezing device for water .....	E. A. Newman .....	389,099	Sept. 4	431	112	44	1154
Pipes. Anti-freezing device for water .....	E. A. Newman .....	389,100	Sept. 4	436	113	44	1155
Pipes. Apparatus for detecting leaks in soil and other .....	D. A. B. Bailey and N. McGillivray .....	386,446	July 21	1647	114	44	348
Pipes. Apparatus for treating metal .....	H. G. Beatley .....	378,756	Feb. 28	2096	115	42	927
Pipes, boilers, &c. Non-conducting covering for steam .....	H. C. Bradley .....	389,542	Sept. 18	1121	552	44	1300
Pipes by electricity. Joining .....	E. Thomson .....	385,381	July 3	63	553	44	14
Pipes. Device for reducing pressure in water or gas .....	C. Delafield .....	393,501	Nov. 27	1943	18, 19	45	995
Pipes. Device for removing water from gas and other .....	J. F. Shay .....	385,378	July 3	57	508	44	13
Pipes. Die for threading and cutting .....	G. Williams .....	379,624	Mar. 20	1123	17	42	1193
Pipes. Expandable joint for .....	H. W. Brinckerhoff .....	381,825	Apr. 24	2292	297	43	480
Pipes. Gas-check for waste .....	H. B. Earckelson .....	390,761	Oct. 9	785	596	45	162
Pipes. Hub and spigot coupling for sheet-metal .....	J. C. Bayles .....	390,152	Sept. 25	2054	209	44	1491
Pipes in trenches. Apparatus for placing hydraulic and other .....	D. A. Streeter .....	388,598	Aug. 28	2148	519	44	1007
Pipes. Joint for cement-lined .....	E. H. Phipps .....	383,413	May 22	2291	576	43	977
Pipes. Lock-clamp for .....	W. J. Purdy .....	389,102	Sept. 4	441	608	44	1156
Pipes. Machine for making cement .....	V. Hepp .....	387,641	Aug. 14	676	116	44	708
Pipes. Mandrel for bending lead .....	J. J. Carr .....	391,945	Oct. 30	2482	175	45	518
Pipes. Month-piece for .....	H. C. Rose .....	386,520	Apr. 3	326	671	43	67
Pipes. Pipe-flange for steam-heating .....	W. E. Brierly and P. P. Sanderson .....	391,113	Oct. 16	1315	93	45	268
Pipes. Safety-plate for steam .....	E. W. Marsh .....	375,885	Jan. 3	211	351	42	45
Pipes. Thermo-electric apparatus for controlling the temperature of water in .....	E. A. Newman .....	383,536	May 29	2493	58	43	1022
Pipes. Trap for exhaust-steam .....	T. Burkhard .....	393,614	Nov. 27	2122	658	45	1033
Pipes. Trap for exhaust-steam .....	E. Rutzler .....	379,542	Mar. 13	989	266	42	1160
Piping. Flexible .....	F. M. Wilder and G. H. Benjamin .....	376,401	Jan. 10	946	248	42	189
Pistol-holder .....	R. Newman .....	375,829	Jan. 3	138	40	42	32
Pistol-stock .....	F. J. Kaldenberg .....	391,473	Oct. 23	1817	486	45	372
Piston .....	P. Maltby .....	392,680	Nov. 13	741	188	45	742
Piston .....	A. M. Morrill .....	379,711	Mar. 20	1250	332	42	1219
Piston .....	T. Poore .....	394,295	Dec. 11	833	221	45	1239

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Piston and plunger .....	R. Tonge .....	383,783	May 29	2856	751	43	1086
Piston for engines .....	C. H. Steen and M. McDonald .....	392,078	Oct. 30	2679	729	45	556
Piston meter .....	A. Frager and B. L. Michel .....	391,956	Oct. 30	2498	{ 676 677 }	45	521
Piston meter .....	J. R. Norfolk .....	384,065	June 5	333	94	43	1181
Piston meter .....	F. Perret .....	388,714	Aug. 28	2315	{ 622 623 }	44	1037
Pistons. Cushioning device for steam .....	E. F. Smith .....	377,840	Feb. 14	765	195	42	655
Pitch-board. Adjustable .....	G. W. Ohver .....	378,069	Feb. 14	1084	285	42	719
Pitcher. Beer .....	M. Stone .....	381,291	Apr. 17	1491	402	43	306
Pitcher. Ice .....	J. E. White .....	377,620	Feb. 14	736	186	42	649
Pitcher. Water .....	T. Shaw .....	379,823	Mar. 20	1429	379	42	1253
Pitchfork .....	R. W. Glasgow .....	379,951	Mar. 27	1633	435	42	1302
Pitman .....	E. B. Benham .....	395,266	Dec. 25	2301	590	45	1540
Pitman .....	J. A. McAnulty .....	394,280	Dec. 11	812	215	45	1236
Pitman .....	J. A. McAnulty .....	394,281	Dec. 11	814	216	45	1236
Pitman-and-crank connection .....	E. B. Benham .....	380,650	Apr. 10	820	223	43	170
Pitman-connection .....	M. N. and E. P. Lynn .....	377,461	Feb. 7	170	40	42	528
Pitman. Flexible .....	C. A. Van Allen .....	392,241	Nov. 6	92	22	45	612
Pivot. Transom .....	E. H. Duchemin .....	394,103	Dec. 4	537	144	45	1173
Plaiting machine. Wrapper .....	E. Saltzkorn and L. J. F. Nicolai .....	386,932	July 31	23-5	627	44	495
Plane .....	J. A. Bissegger .....	385,231	June 26	2085	534	43	1549
Plane .....	M. Doscher .....	390,574	Oct. 2	530	139	45	107
Plane .....	A. S. Haynes .....	384,844	June 19	1507	392	43	1424
Plane .....	R. T. Torkelson and I. Johnson .....	381,186	Apr. 17	1345	360	41	278
Plane .....	J. J. Tower .....	379,346	Mar. 13	697	189	42	1104
Plane. Bench .....	H. M. Clark .....	378,494	Feb. 28	1731	457	42	858
Plane. Bench .....	I. Johnson and R. T. Torkelson .....	381,141	Apr. 17	1285	343	43	267
Plane. Bench .....	C. L. Mead and J. A. Traut .....	378,704	Feb. 28	2029	536	42	915
Plane. Bench .....	T. H. B. Millsap .....	383,234	May 20	2023	531	43	930
Plane. Bench .....	J. H. Shaw .....	377,645	Feb. 7	439	112	42	579
Plane. Bench .....	W. Stevenson .....	394,411	Dec. 11	1005	264	45	1273
Plane. Bench .....	J. A. Traut .....	376,455	Jan. 17	1038	272	42	214
Plane. Bench .....	J. A. Traut .....	386,509	July 24	1745	461	44	366
Plane. Block-rabbit .....	J. Doray .....	379,940	Mar. 27	1618	431	42	1299
Plane. Carpenter's .....	J. Hartness and J. J. Tower .....	392,425	Nov. 6	369	91	45	693
Planer and leveler. Road .....	J. L. Holden .....	386,823	July 31	2222	585	41	464
Planer attachment for cutting internal gears .....	G. F. Hinchins .....	381,788	Apr. 24	2219	581	43	467
Planer attachment for planing curved surfaces .....	G. M. Griffiths .....	390,294	Oct. 2	130	37	45	29
Planer-gage and calipers .....	W. Haddow .....	380,797	Apr. 10	745	204	43	157
Planer. Road .....	J. C. Steele .....	379,629	Mar. 20	1434	380	42	1254
Planers and other wood-working machines. Adjustable guide for buzz .....	B. G. Luther .....	387,428	Aug. 7	334	86	44	637
Planers. Clamping device for cross-beams of .....	G. L. Marble .....	382,653	May 8	1179	{ 304 305 }	43	745
Planers. Extension-tool for .....	H. K. Porter .....	382,268	May 1	572	145	43	619
Planers. Friction feed mechanism for iron .....	F. Phillips .....	378,106	Feb. 21	1140	298	42	737
Planing and drilling machine. Automatic wood .....	C. E. Bickford .....	385,935	July 10	750	{ 196 197 }	44	153
Planing-machine .....	J. Connell .....	387,211	Aug. 7	21	4	44	576
Planing-machine .....	L. P. Hoyt .....	384,445	June 12	899	235	43	1301
Planing-machine .....	L. P. Hoyt .....	391,616	Oct. 23	2003	{ 541 542 }	45	412
Planing-machine .....	S. A. Woods and J. R. Thomas .....	385,895	July 10	847	224	44	173
Planing-machine .....	S. A. Woods and J. R. Thomas .....	388,169	Aug. 21	1512	403	44	876
Planing-machine knife .....	A. C. Dumontier .....	389,139	Sept. 4	507	129	44	1167
Planing machine. Metal .....	C. Holly .....	394,363	Dec. 11	940	247	45	1261
Planing machine. Metal .....	L. W. Pond and F. E. Norton .....	380,692	Apr. 10	587	162	43	127
Planing machine. Wood .....	J. Baillie .....	387,757	Aug. 14	845	218	44	740
Planing machine. Wood .....	W. H. Gray .....	377,250	Jan. 31	2213	584	42	454
Planing machine. Wood .....	J. Ross .....	385,284	June 23	2175	555	43	1566
Planing machine. Wood .....	J. F. Welch .....	387,384	Aug. 7	279	71, 72	44	625
Planing machine. Wood .....	J. F. Welch .....	390,047	Sept. 25	1896	500	44	1458
Planing machine. Wood .....	J. F. Welch .....	390,829	Oct. 9	880	{ 233 234 }	45	180
Planing machine. Wood .....	J. F. Welch .....	393,948	Dec. 4	309	84, 85	45	1132
Planing-machines. Expansion-gearing for .....	L. P. Hoyt .....	387,417	Aug. 7	318	82	44	634
Planing-machines. Gage and feed attachment for buzz .....	S. S. Raymond, S. N. Bourne, and W. W. Carey .....	388,584	Aug. 28	2124	{ 570 571 }	44	1001
Planing machines. Sectional adjustable pressure-bar and chip-breaker for wood .....	C. S. Warner .....	388,094	Aug. 21	1369	369	44	851
Plant-protector .....	J. W. McCall .....	382,370	May 8	741	187	43	659
Plant-puller .....	M. E. White .....	390,049	Sept. 25	1899	501	44	1459
Plant support. Potted .....	F. S. Falmestock .....	383,174	June 26	1997	511	43	1531
Plants containing indician. Treating .....	P. P. F. Michéa .....	388,703	Aug. 28	2300	618	44	1034
Plants. Machine for setting .....	J. W. McKay .....	390,500	Oct. 2	430	111	45	88
Planter .....	A. W. Black .....	382,069	May 1	286	76	43	566
Planter .....	J. A. Cumming .....	388,999	Aug. 28	1869	{ 499 500 }	44	951
Planter .....	W. I. Knox .....	391,374	Oct. 16	1677	444	45	337
Planter .....	D. M. Parry .....	385,568	July 3	357	93	44	71
Planter .....	W. H. Slappey .....	390,712	Oct. 9	716	189	45	151
Planter .....	T. W. Thornton .....	390,722	Oct. 9	730	192	45	153
Planter .....	D. B. N. Turner .....	379,834	Mar. 20	1449	383	42	1256
Planter .....	E. Tyden .....	385,583	July 3	375	97, 98	44	75
Planter and chopper. Cotton .....	I. L. Lester and J. Whittley .....	390,241	Oct. 2	65	18	45	16
Planter and cultivator. Seed .....	J. L. Dykes .....	392,148	Oct. 30	2803	761	45	580
Planter and fertilizer-distributor .....	L. and J. Charles .....	381,335	Apr. 17	1552	{ 418 419 }	43	319
Planter and fertilizer-distributor .....	E. E. Marshall .....	395,287	Dec. 25	2426	{ 622 623 }	45	1564
Planter and fertilizer-distributor. Combined .....	J. M. Pope .....	380,929	Apr. 10	946	{ 250 251 }	43	193
Planter attachment. Corn .....	W. H. Bowman .....	378,569	Feb. 28	1837	484	42	878



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Diag.	Vol.	Page.
Planter attachment. Corn.....	R. A. Dean.....	392,911	Nov. 13	1077	279	45	811
Planter. Automatic check-row corn.....	E. C. Culver.....	379,634	Mar. 20	1136	301	42	1195
Planter. Check-row.....	J. Clark.....	388,530	Aug. 28	2044	550	44	986
Planter. Check-row.....	J. H. Jensen.....	375,875	Jan. 3	195	53, 54	42	42
Planter. Check-row.....	A. F. Tiede.....	378,222	Feb. 21	1314	349	42	770
Planter. Check-row corn.....	L. A. Aspinwall.....	388,104	Aug. 21	1389	373	44	854
Planter. Check-row corn.....	J. E. Bering.....	379,850	Mar. 20	1475	389	42	1261
Planter. Check-row corn.....	J. E. Bering.....	381,102	Apr. 17	1233	330	43	256
Planter. Check-row corn.....	D. H. Dillon.....	391,126	Oct. 16	1332	355	45	271
Planter. Check-row corn.....	N. O. Starks.....	390,529	Oct. 2	469	122	45	95
Planter. Check-row corn.....	I. F. Wilcox.....	388,749	Aug. 28	2358	636	44	1046
Planter. Check-row corn.....	E. N. Williams.....	376,125	Jan. 10	570	152	42	120
Planter. Combined corn and cotton.....	E. P. Lynch.....	376,534	Jan. 17	1144	300	42	234
Planter. Combined corn and cotton.....	J. D. Schofield.....	388,452	Aug. 28	1941	519	44	966
Planter combined. Corn and cotton.....	J. C. Mallison.....	385,940	July 10	908	242	44	186
Planter. Corn.....	J. C. Barlow.....	378,279	Feb. 21	1414	369	42	786
Planter. Corn.....	A. G. Beale.....	377,059	Jan. 31	1936	508	42	400
Planter. Corn.....	A. Bussey.....	378,189	Feb. 21	1266	509	42	760
Planter. Corn.....	J. W. and G. W. Campbell.....	379,363	Mar. 13	721	196	42	1109
Planter. Corn.....	J. W. Craig.....	376,370	Jan. 10	908	197	42	183
Planter. Corn.....	J. De Butts.....	378,164	Feb. 21	1233	324	42	753
Planter. Corn.....	C. C. Du Cray.....	381,223	Apr. 17	1392	372	43	257
Planter. Corn.....	J. Fehrer.....	384,834	June 19	1489	388	43	1420
Planter. Corn.....	J. M. Getchell.....	379,389	Mar. 13	761	389	42	1116
Planter. Corn.....	F. F. Harman.....	394,176	Dec. 11	642	205	42	1116
Planter. Corn.....	G. D. Haworth.....	380,889	Apr. 10	889	172	45	1204
Planter. Corn.....	E. K. Hayes.....	384,363	June 12	788	173	43	182
Planter. Corn.....	J. L. Henderson.....	380,571	Apr. 3	401	206	43	1278
Planter. Corn.....	A. S. and E. Honck.....	381,073	Apr. 10	1175	207	43	82
Planter. Corn.....	J. M. Johnston.....	386,016	July 10	1001	312	43	237
Planter. Corn.....	J. H. Jones.....	376,823	Jan. 24	1606	313	44	205
Planter. Corn.....	W. Koehler and W. J. Ranck.....	381,076	Apr. 10	1179	421	42	329
Planter. Corn.....	H. S. McMillion.....	385,817	July 10	732	313	43	238
Planter. Corn.....	J. Moran.....	386,207	July 17	1274	188	44	148
Planter. Corn.....	F. P. Murphy.....	381,883	Apr. 24	2381	340	44	265
Planter. Corn.....	J. A. Mussetter.....	392,328	Nov. 13	1098	618	43	497
Planter. Corn.....	R. C. Robinson.....	390,708	Oct. 9	708	285	45	814
Planter. Corn.....	A. L. A. Schiermeyer.....	379,989	Mar. 27	1686	286	45	149
Planter. Corn.....	J. Selby.....	381,588	Apr. 24	1942	450	42	1313
Planter. Corn.....	M. A. Spafford.....	380,298	Mar. 27	2115	511	43	413
Planter. Corn.....	C. E. White.....	379,838	Mar. 20	1453	512	42	1397
Planter. Corn.....	A. Winston.....	376,422	Jan. 10	984	566	42	1397
Planter. Corn and bean.....	A. N. Woodard.....	390,425	Oct. 2	317	384	42	1257
Planter. Corn and cotton.....	F. A. Jacobsen.....	390,678	Oct. 9	666	385	42	1257
Planter. Corn and cotton.....	L. Tedder.....	382,569	May 8	1051	257	42	196
Planter. Corn or cotton.....	G. E. Womack.....	391,998	Oct. 30	2561	83	45	67
Planter. Cotton.....	W. P. Bledsoe.....	391,225	Oct. 16	1470	178	45	140
Planter. Cotton.....	D. H. Ellington.....	394,163	Dec. 11	624	268	45	720
Planter. Cotton.....	J. T. Gantt.....	394,848	Dec. 18	1729	685	45	532
Planter. Cotton.....	F. W. Symmes.....	381,964	May 1	94	391	45	299
Planter. Cotton.....	J. R. White.....	380,841	Apr. 10	806	167	45	1200
Planter. Cotton-seed.....	S. E. Hake.....	384,314	June 12	706	448	45	1425
Planter. Cotton-seed.....	B. D. and J. B. King.....	380,723	Apr. 10	631	449	45	1425
Planter. Cotton-seed.....	B. B. Pritchett.....	378,109	Feb. 21	1147	23	43	532
Planter. Cotton-seed.....	W. Radley.....	392,689	Nov. 13	752	219	43	167
Planter. Cotton-seed.....	O. G. Tarver.....	391,867	Oct. 30	2369	188	43	1265
Planter, cultivator, and cotton-chopper. Combined } corn and cotton.....	J. W. Carley.....	378,286	Feb. 21	1425	189	43	1265
Planter for cotton or other seeds.....	L. A. Aspinwall.....	387,279	Aug. 7	113	191	45	745
Planter. Hand.....	S. Hackett.....	385,511	July 3	268	192	45	495
Planter. Hand.....	C. J. Klinka.....	391,749	Oct. 23	2181	372	42	788
Planter. Hand.....	T. N. Lupton.....	389,709	Sept. 18	1394	373	42	788
Planter. Hand.....	S. A. Payne.....	381,083	Apr. 10	1199	372	42	788
Planter. Hand corn.....	G. A. and J. D. Heywood.....	393,645	Nov. 27	2165	373	42	788
Planter. Hand corn.....	J. M. Segur.....	393,669	Nov. 27	2202	372	42	788
Planter. Hand corn.....	J. M. Segur.....	393,670	Nov. 27	2205	373	42	788
Planter. Pea, cotton-seed, or corn.....	Z. T. Lee.....	382,886	May 15	1495	372	42	788
Planter. Peanut.....	R. Gardner.....	381,357	Apr. 17	1593	372	42	788
Planter. Potato.....	J. W. Estes.....	384,353	June 12	774	372	42	788
Planter. Potato.....	E. D. Gaines.....	387,222	Aug. 7	35	201	43	1275
Planter. Potato.....	T. G. McConnell.....	394,596	Dec. 18	1299	202	43	1275
Planter. Potato.....	J. H. Priestley.....	386,349	July 17	1490	35	44	579
Planter. Potato.....	F. L. Semour and J. McHenry.....	393,860	Dec. 4	185	340	45	1341
Planter. Pumpkin-seed.....	D. McCarty.....	386,643	July 24	1926	305	44	305

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Planter. Row-checking corn.....	H. S. Bailey.....	393,531	Nov. 27	1994	{ 520 521 522 }	45	1007
Planter. Seed.....	F. W. Ayers.....	388,331	Aug. 21	1762	470	44	926
Planter. Seed.....	A. Barker.....	378,077	Feb. 21	1101	258	42	730
Planter. Seed.....	J. F. Guilmartin.....	376,243	Jan. 10	733	195	42	150
Planter. Seed.....	J. V. Harter.....	376,089	Jan. 10	511	137	42	109
Planter. Seed.....	J. B. Leamen.....	395,153	Dec. 25	2220	{ 570 571 }	45	1526
Planter. Seed.....	H. Thaden.....	389,776	Sept. 18	1481	390	44	1369
Planter. Sulky lister-plow corn.....	L. E. Waterman.....	385,738	July 10	607	{ 157 158 }	44	126
Planter. Wheel.....	W. H. Grove.....	382,644	May 8	1160	279	43	741
Planter. Wheel.....	P. Kling.....	387,521	Aug. 7	478	{ 125 126 }	44	666
Planters and distributors. Feeding device for.....	E. E. Marshall.....	395,286	Dec. 25	2425	622	45	1764
Planters. Attachment for check-row corn.....	J. L. Brott.....	390,066	Sept. 25	1925	507	44	1464
Planters. Attachment for corn.....	J. Fulton.....	394,351	Dec. 11	923	243	45	1258
Planters. Attachment for corn.....	M. Schmucker.....	379,821	Mar. 20	1426	378	42	1253
Planters. Attachment for corn.....	W. H. Stevens.....	381,036	Apr. 10	1115	{ 298 299 }	43	225
Planters. Check-row attachment for.....	I. Jackson.....	382,428	May 8	824	211	43	676
Planters. Check-row attachment for.....	R. C. Robinson.....	390,707	Oct. 9	706	187	45	148
Planters. Check-row attachment for corn.....	B. O'Donnell.....	388,908	Sept. 4	155	41	44	1102
Planters. Compensating clutch for corn.....	J. S. Johnson.....	376,308	Jan. 10	820	217	42	166
Planters. Covering-shovel for.....	J. C. Barlow.....	387,483	Aug. 7	414	109	44	653
Planters. Drill attachment for.....	L. Scofield.....	383,994	June 5	227	67	43	1165
Planters. Regulating attachment for corn.....	W. M. Robinson.....	378,724	Feb. 28	2055	542	42	920
Planting attachment. Corn.....	F. L. Aten.....	379,554	Mar. 20	1012	271	42	1173
Planting implement.....	F. R. Griscom.....	389,925	Sept. 25	1723	456	44	1423
Planting machine. Potato.....	J. Angst.....	392,176	Nov. 6	2	1	45	595
Plaque or panel.....	E. De Planque.....	386,970	July 31	2436	640	44	506
Plaster. Composition of matter for.....	M. Turley and G. W. Chamberlin.....	389,724	Sept. 18	1417	.....	44	1356
Plaster. Electric.....	H. P. Pratt.....	391,720	Oct. 23	2145	580	45	411
Plaster-mixing machine.....	G. West.....	392,632	Nov. 13	703	177	45	735
Plasterer's jacket.....	J. Skeffington.....	375,958	Jan. 3	314	84	42	65
Plastering composition.....	J. H. Fitzgerald.....	391,899	Oct. 30	2403	.....	45	502
Plastering composition.....	J. H. Fitzgerald.....	391,890	Oct. 30	2403	.....	45	502
Plastering, &c. Composition of matter for.....	J. Coy.....	390,157	Sept. 25	2062	.....	44	1493
Plastering. Composition of matter to be used for.....	M. Flegle.....	393,002	Nov. 20	1921	.....	45	845
Plastering. Hard finish for.....	A. H. Williams.....	392,481	Nov. 6	452	.....	45	680
Plastering-machine.....	D. W. Miles.....	378,453	Feb. 28	1673	439	42	845
Plastic compound.....	L. F. Head.....	382,607	May 8	1113	.....	43	732
Plastic compound.....	F. A. Meyer.....	393,383	Nov. 27	1764	.....	45	961
Plastic material. Box of.....	M. Gardner.....	383,175	May 22	1940	509	43	914
Plastic material. Machine for forming balls, &c., from.....	F. Heller and I. G. Hooper.....	379,068	Mar. 6	298	87, 88	42	1022
Plastic material while planing them into sheets. Apparatus for securing blocks of.....	F. Curtis.....	386,110	July 17	1140	305	44	239
Plastic material while planing them into sheets. Securing blocks of.....	F. Curtis.....	387,947	Aug. 14	1139	306	44	799
Plate. Corrugated.....	R. Baillie.....	390,941	Oct. 9	1040	275	45	211
Plate-holder.....	W. H. Lewis.....	388,057	Aug. 21	1310	353	44	810
Plate or dish lifter.....	J. W. Thompson.....	387,122	July 31	2668	678	44	547
Plated-wire stock. Plate for the manufacture of.....	J. S. Palmer.....	383,241	May 22	2033	533	43	932
Platform.....							
See Car-platform. Dumping-platform.							
Platform or step.....	F. H. Stanwood.....	392,891	Nov. 13	1051	271	45	806
Pliers.....	A. A. Low.....	390,131	Sept. 25	2023	530	44	1484
Pliers.....	W. C. Marr.....	382,712	May 15	1262	330	43	770
Pliers.....	L. E. Whipple.....	393,494	Nov. 27	1935	506	45	993
Pliers. Making.....	M. G. Crane.....	393,361	Nov. 27	1731	458	45	955
Pliers or pinchers.....	B. J. Leslie.....	380,331	Apr. 3	36	13	43	9
Plotter and protractor.....	W. J. Mitchell.....	376,332	Jan. 10	860	226	42	174
Plotting contours of ground. Instrument for.....	M. Stixrud.....	385,780	July 10	673	176	44	139
Plow.....	L. D. Ball and J. T. Bender.....	384,952	June 26	1658	431	43	1461
Plow.....	S. Barr.....	377,226	Jan. 31	2174	574	42	448
Plow.....	J. W. Bartlett.....	386,374	July 17	1525	{ 404 405 }	44	312
Plow.....	A. G. Bazemore.....	382,940	May 15	1568	409	43	832
Plow.....	A. W. Belote.....	391,935	Oct. 30	2169	668	45	515
Plow.....	A. H. Bennett.....	391,576	Oct. 23	1051	525	45	402
Plow.....	T. A. Blanchard.....	384,740	June 19	1345	351	43	1393
Plow.....	R. and S. T. Bruce.....	389,498	Sept. 11	1054	280	44	1279
Plow.....	C. A. Burch.....	392,780	Nov. 13	899	{ 229 230 }	45	774
Plow.....	H. Cann.....	391,116	Oct. 16	1318	{ 351 352 }	45	269
Plow.....	D. H. Carpenter.....	381,529	Apr. 24	1860	492	43	397
Plow.....	J. E. Coleman.....	392,992	Nov. 20	1211	315	45	843
Plow.....	W. A. Fairbanks.....	377,296	Jan. 31	2282	603	42	467
Plow.....	J. H. Foster and J. H. Kimbro.....	389,067	Sept. 4	379	99	44	1145
Plow.....	J. H. Fry.....	382,207	May 8	626	160	43	639
Plow.....	T. Hayden.....	374,071	Dec. 4	490	131	45	1165
Plow.....	E. Hixson.....	379,647	Mar. 20	1153	305	42	1199
Plow.....	J. King.....	389,750	Sept. 18	1449	379	44	1362
Plow.....	D. W. Lysle.....	392,047	Oct. 30	2634	716	45	547
Plow.....	J. McArthur.....	379,653	Mar. 20	1160	306	42	1200
Plow.....	R. McInturff.....	387,003	July 31	2486	653	44	515
Plow.....	F. A. Mills.....	392,216	Nov. 6	56	15	45	605
Plow.....	E. Muraine.....	376,543	Jan. 17	1160	305	42	237
Plow.....	A. M. Nash.....	380,919	Apr. 10	929	248	43	190
Plow.....	J. B. Neff.....	380,658	Apr. 3	526	145	43	106
Plow.....	H. P. Nelson.....	387,532	Aug. 7	491	129	44	668
Plow.....	J. Newbill.....	391,718	Oct. 23	2143	579	45	440

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Plow.....	F. Nitschmann.....	381,946	May 1	67	17	43	527
Plow.....	A. Olson.....	378,900	Mar. 6	58	17	42	978
Plow.....	J. Porteous.....	380,052	Mar. 27	1787	477	42	1331
Plow.....	A. C. Rosencranz.....	384,283	June 12	662	177	43	1257
Plow.....	R. W. Shelbourne and J. H. Sublett.	377,646	Feb. 7	440	113	42	579
Plow.....	J. J. Sigman.....	389,487	Sept. 11	1040	277	41	1277
Plow.....	C. P. Sutton.....	376,790	Jan. 24	1559	409	42	321
Plow.....	C. M. Thompson.....	377,653	Feb. 7	458	118	42	581
Plow.....	J. Thompson and S. B. Secrist.....	385,216	June 26	2060	528	43	1544
Plow.....	G. W. Whately.....	387,385	Aug. 7	281	72	44	626
Plow.....	G. Wiard.....	386,443	July 17	1636	430	44	339
Plow.....	A. Wied and H. Lürssen.....	388,165	Aug. 21	1508	402	41	875
Plow. Adjustable double.	A. A. Bilhingslea.....	385,294	June 26	2193	560	43	1570
Plow and cultivator	W. H. H. Spradlin.....	389,259	Sept. 11	705	180	44	1214
Plow and harrow. Combined.	J. C. Horton.....	379,164	Mar. 6	430	121	42	1048
Plow and harrow. Combined.	A. Trexler.....	389,675	Sept. 18	1343	352	44	1340
Plow and planter. Combined.	W. F. Leslee.....	379,897	Mar. 20	1555	409	42	1276
Plow and pulverizer.	S. T. and C. Johnston.....	381,142	Apr. 17	1286	341	43	207
Plow and pulverizer. Combined.	G. D. Baird.....	384,110	June 5	387	109	43	1195
Plow and road-grader. Side-hill.	E. Clark.....	375,802	Jan. 3	107	31	42	25
Plow attachment.	W. C. Ferry.....	387,504	Aug. 7	454	119	44	662
Plow attachment.	E. G. Goddard.....	376,773	Jan. 24	1527	402	42	315
Plow attachment.	H. B. Gowen.....	393,151	Nov. 20	1421	371	45	885
Plow attachment.	C. W. McCormick.....	388,428	Aug. 28	1907	510	44	959
Plow attachment.	J. and S. W. Miles.....	389,820	Sept. 18	1541	408	44	1381
Plow attachment.	J. T. Minard.....	375,762	Jan. 3	57	17	42	15
Plow attachment.	H. S. Null and J. Bussard.....	376,393	Jan. 10	935	245	42	188
Plow attachment.	M. Pate.....	385,773	July 10	600	173	44	137
Plow attachment.	J. B. Tennison.....	387,699	Aug. 14	764	195	44	725
Plow attachment.	W. Tyers.....	377,126	Jan. 31	2039	533	42	420
Plow-bar. Adjustable.	C. R. Barfield.....	376,226	Jan. 10	714	190	42	147
Plow-beam.	E. A. Wilcox.....	377,472	Feb. 7	187	44	42	531
Plow-clevis.	H. M. Smith.....	387,373	Aug. 7	268	68	44	623
Plow. Cultivating.	T. Walker.....	388,935	Sept. 4	193	51	44	1109
Plow. Ditching.	J. L. Olson.....	377,837	Feb. 14	762	194	42	654
Plow. Double-furrow.	M. Wilson.....	393,135	Nov. 20	1397	365	45	880
Plow. Double-set.	W. T. Maynard.....	380,214	Mar. 27	2010	538	42	1376
Plow. Double-shovel.	W. R. Craig.....	387,770	Aug. 14	863	223	44	744
Plow. Drill.	C. Herren.....	383,224	May 22	2007	527	43	927
Plow-fender.	R. L. Cole.....	392,991	Nov. 20	1211	314	45	842
Plow-fender.	E. O. Davis.....	380,998	Apr. 10	1057	279	43	214
Plow. Fire.	J. B. Oliver. (Reissue).	10,909	Mar. 13	1008	270	42	1164
Plow. Gang.	H. M. Irwin.....	380,895	Apr. 10	898	240	43	124
Plow. Gang.	M. and J. P. McInnes.....	393,074	Nov. 20	1315	343	45	864
Plow. Gang.	A. and G. M. Shaffer.....	383,496	May 29	2429	645	43	1011
Plow. Garden.	W. H. Heard.....	385,051	June 26	1825	468	43	1495
Plow. Garden.	R. D. Snyder.....	391,654	Oct. 23	2055	556	45	424
Plow. Hand.	P. D. Graham.....	398,918	Dec. 18	1855	480	45	1448
Plow. Hand.	W. B. Petty and W. J. Houston.....	391,983	Oct. 30	2539	687	45	529
Plow. Hillside.	R. A. Coru.....	381,909	May 1	18	5	43	518
Plow. Hillside.	T. Lumsden.....	392,566	Nov. 6	569	143	45	704
Plow. Mold-board.	J. A. Johnson.....	390,480	Oct. 2	398	102	45	82
Plow. Mole.	T. Nowell and G. H. Wilson.....	376,674	Jan. 17	1366	358	42	275
Plow or cultivator. Listing.	J. S. Crum.....	379,863	Mar. 20	1506	396	42	1267
Plow or harrow attachment.	J. W. Trew.....	389,121	Sept. 4	483	121	44	1162
Plow-point.	I. J. Martin.....	383,402	May 22	2272	604	43	974
Plow-point.	W. E. Sefton.....	385,529	July 3	298	76	44	60
Plow-point. Detachable.	H. McCluey.....	382,179	May 1	441	115	43	594
Plow. Potato.	S. Disbrow.....	384,310	June 12	702	187	43	1264
Plow. Reversible.	C. H. Farley.....	388,655	Aug. 28	2225	597	41	1020
Plow-sharpener.	F. Munger.....	395,292	Dec. 25	2434	625	45	1565
Plow. Shovel.	T. W. Boyle.....	392,308	Nov. 6	185	48	45	629
Plow. Side-hill.	A. K. Snodgrass.....	383,997	June 5	232	68	43	1166
Plow. Side-hill reversible.	T. H. Whitaker.....	376,931	Jan. 24	1756	462	42	358
Plow-standard.	W. H. Hodgson.....	381,014	Apr. 10	1076	285	43	217
Plow-standard.	A. J. Nellis.....	376,448	Jan. 17	1030	269	42	212
Plow. Sulky.	J. H. Barr.....	387,484	Aug. 7	416	109	44	654
Plow. Sulky.	S. M. Campbell.....	388,120	Aug. 21	1437	385	44	862
Plow. Sulky.	M. T. Hancock.....	379,892	Mar. 20	1548	408	42	1275
Plow. Sulky.	N. Lampman.....	383,309	May 22	2137	563	43	950
Plow. Sulky.	A. Lindgren.....	376,532	Jan. 17	1143	299	42	233
Plow. Sulky.	W. Strait.....	376,788	Jan. 24	1554	408	42	320
Plow. Sulky.	E. C. Westervelt.....	382,919	May 15	1539	403	43	827
Plow. Three-wheel riding.	S. B. and J. C. Tolson.....	382,019	May 1	209	55, 56	43	552
Plow. Wheel.	B. F. Butler.....	391,115	Oct. 16	1817	351	45	268
Plow. Wheel.	F. A. Head.....	391,047	Oct. 16	1227	325	45	252
Plow. Wheel.	H. N. Keith.....	392,613	Nov. 13	649	163	45	725
Plow. Wheel.	S. A. Kerns.....	392,207	Nov. 6	42	11	45	602
Plow. Wheel.	S. A. Kerns.....	393,707	Nov. 27	2253	591	45	1059
Plow. Wheel.	E. P. Lynch.....	376,535	Jan. 17	1147	301	42	234
Plow. Wheel.	E. P. Lynch.....	376,536	Jan. 17	1149	301	42	235
Plow. Wheel.	E. Shook.....	375,777	Jan. 3	77	23	42	19
Plow-wheel.	J. M. Young.....	375,789	Jan. 3	93	27	42	22
Plows. Adjustable heel for.	S. Landauer.....	388,982	Sept. 4	259	69	44	1123
Plows. Clearing attachment for.	M. B. Suley.....	387,962	Aug. 14	1163	315	44	803
Plows. Combined harrow, planter, and roller attachment for.	S. B. Smith.....	391,204	Oct. 16	1439	385	45	293
Plows. Double point for.	R. Schuster.....	393,270	Nov. 20	1593	418	45	919
Plows. Lever for sulky.	E. W. Drake.....	387,777	Aug. 14	872	225	44	746

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Plows. Machinery for operating steam.....	G. W. Morris.....	385,520	July 3	278	72	44	56
Plows. Sulky attachment for.....	N. C. Barnes.....	376,176	Jan. 10	643	172	42	134
Plows. Sulky attachment for.....	W. Cobb.....	375,868	Jan. 3	185	51	42	40
Plows. Sulky attachment for.....	G. H. Sawyer.....	379,288	Mar. 13	618	169	42	1088
Plows. Sulky attachment for walking.....	D. T. Jones.....	389,705	Sept. 18	1385	363	41	1348
Plowing apparatus. Steam.....	E. Ingletton.....	382,983	May 15	1628	426	43	843
Plowshare.....	W. E. Smith.....	389,257	Sept. 11	704	179	41	1214
Plug and ferrule for wash-tray connections. Combined.....	C. J. Phillips.....	383,982	June 5	213	63	43	1162
Plug-box machine.....	G. H. Millen and E. Mousseau.....	390,888	Oct. 9	958	253	45	194
Plug. Fusible.....	J. E. Davis.....	394,102	Dec. 4	536	143	45	1173
Plug. Water.....	B. Crowell and W. E. Harrison.....	391,029	Oct. 16	1200	319	45	247
Plumber's air-cushion.....	A. H. Walker.....	381,731	Apr. 24	2146	562	43	453
Plumber's furnace.....	H. Ruppel.....	379,986	Mar. 27	1682	449	42	1312
Plumber's trap.....	N. Barry, Jr.....	384,114	June 5	394	110	43	1196
Plumbers' traps. Device for making.....	A. Boll.....	384,956	June 26	1662	432	43	1462
Plumbers' traps. Return-vent protector for.....	W. B. Ryan.....	387,961	Aug. 14	1162	315	44	803
Plumbing-base. Elevating.....	F. Snyder.....	393,403	Nov. 27	1791	473	45	966
Plumbing wall-paper, window-shades, &c. Device for.....	J. Panyard.....	376,341	Jan. 10	870	228	42	176
Plume.....	R. W. E. Aldrich.....	393,377	Dec. 4	216	58	45	1112
Plume, tassel, &c.....	R. W. E. Aldrich.....	394,734	June 15	1336	348	43	1391
Plush fabric. Two-faced embossed chenille.....	W. T. Smith.....	392,699	Nov. 13	769	195	45	719
Pneumatic carrier.....	G. D. Burton.....	379,503	Mar. 13	936	252	42	1149
Pneumatic hook.....	E. Berliner.....	380,309	Apr. 3	5	1	43	3
Pneumatic tubes and similar ways. Means for automatically operating the gates of.....	R. M. Curtiss.....	376,862	Jan. 24	1664	434	42	339
Pneumatic tubes. Switch for.....	C. H. Goebel.....	393,700	Nov. 27	2247	569	45	1058
Pocket attachment.....	J. T. Simpson.....	378,729	Feb. 28	2060	543	42	921
Pocket-book.....	G. Enger.....	392,019	Oct. 30	2592	705	45	539
Pocket-book.....	A. H. Jocelyn.....	384,527	June 12	1031	269	43	1324
Pocket-book, bag, or purse frame.....	E. Oldenbusch.....	384,386	June 12	823	214	43	1285
Pocket-book clasp.....	D. M. Read.....	379,724	Mar. 20	1269	338	42	1223
Pocket-book clasp.....	S. Zinn.....	387,965	Aug. 14	1167	316	44	804
Pocket-book fastening.....	R. L. Boyd.....	382,795	May 15	1378	362	43	793
Pocket-book frame.....	B. Vorn Eigen.....	380,834	Apr. 10	793	217	43	166
Pocket-books, &c. Elastic band for.....	J. S. Ebert.....	377,373	Feb. 7	8	3	42	496
Pocket-books, satchels, &c. Frame for.....	L. Messer.....	385,639	July 3	463	120	44	90
Pocket. Device for preventing purses from being stolen from the.....	E. C. Whitlock.....	394,043	Dec. 4	452	121	45	1157
Pocket-knife.....	A. Weck and B. von Bultzingslöwen.....	390,633	Oct. 2	599	159	45	120
Pocket-receptacle. Pickpocket-proof.....	S. Mendelson.....	379,319	Mar. 13	684	179	42	1007
Pocket-spring. Safety.....	J. C. Wakefield.....	379,347	Mar. 13	698	189	42	1104
Pointing, drilling, and reaming machine.....	F. Leman.....	380,496	Apr. 3	276	77	43	57
Poison-bottle indicator.....	J. C. Higgins.....	383,394	May 22	2260	601	43	972
Poison-bottles. Precautionary device for.....	F. H. Nutter.....	388,785	Aug. 28	2416	652	44	1056
Poison-bottles. Safety-cover for.....	F. O. Bratton.....	389,651	Sept. 4	352	93	44	1139
Poison-distributor.....	J. Nelson.....	392,631	Nov. 13	674	168	45	730
Poison-distributor. Bug.....	S. B. Rolfe.....	395,176	Dec. 25	2259	580	45	1533
Poison-distributor for plants.....	J. T. Gramling and A. A. Adler.....	394,264	Dec. 11	789	209	45	1231
Poison-distributor. Insect.....	L. D. Heaton.....	395,272	Dec. 25	2408	617	45	1560
Poison on worm-infested plants. Machine for distributing.....	J. P. Reach.....	392,289	Nov. 6	162	42	45	624
Poke. Animal.....	W. Macy.....	386,481	July 24	1699	449	44	358
Poker. Fire.....	J. E. Gaitley.....	381,356	Apr. 17	1592	426	43	326
Pole and shafts for vehicles.....	H. N. Timms.....	387,125	July 31	2673	699	44	548
Pole and shafts. Vehicle.....	A. L. Bratsch.....	383,939	June 5	148	43	43	1149
Pole attachment for vehicles.....	W. P. Fest.....	388,189	Aug. 21	1544	410	44	882
Pole attachment. Wagon.....	G. F. Colby.....	387,397	Aug. 7	296	76	44	629
Pole-changer.....	E. M. Hamilton.....	379,062	Mar. 6	292	85	42	1021
Pole-changer. Automatic.....	E. J. Mallett.....	384,323	June 12	732	191	43	1267
Pole-changer. Automatic.....	E. J. Mallett.....	384,326	June 12	732	193	43	1268
Pole coupling. Shifting.....	S. R. Bailey.....	386,373	July 17	1524	403	44	312
Pole for carriages. Extension.....	C. E. Perry.....	390,395	Oct. 2	281	74	45	60
Pole or thill for vehicles.....	G. L. Clapp.....	393,296	Nov. 20	1634	430	45	927
Pole-socket and neck-yoke.....	J. M. Kettlewood.....	377,679	Feb. 7	494	127	42	589
Pole-tip.....	T. J. Houghton.....	382,529	May 8	987	248	43	706
Pole-tip.....	G. Mengel.....	390,883	Oct. 9	953	251	45	193
Pole tip. Vehicle.....	F. A. Aldrich.....	387,754	Aug. 14	842	217	44	740
Pole tip. Vehicle.....	C. W. Eunson.....	391,407	Oct. 23	1723	459	45	353
Pole. Vehicle.....	B. F. Rix.....	393,787	Dec. 4	77	21	45	1088
Pole. Vehicle.....	W. S. Tripp.....	394,667	Dec. 13	1421	370	45	1363
Police alarm system.....	J. C. Wilson.....	392,248	Nov. 6	105	27	45	614
Police-nippers.....	A. Eisaman and G. Rome.....	394,162	Dec. 11	623	167	45	1200
Polishing and varnishing machine.....	J. W. Hussey.....	376,198	Jan. 10	670	178	42	158
Polishing apparatus for wood, &c.....	T. Davids.....	385,171	June 26	1991	510	43	1530
Polishing-iron.....	B. Swift.....	390,817	Oct. 9	863	228	45	176
Polishing-powder. Manufacture of.....	V. Seib.....	376,211	Jan. 10	692	42	42	142
Polishing-wheel.....	C. N. Bacon.....	392,979	Nov. 20	1188	309	45	839
Pool and billiard table. Combination.....	R. L. Rink.....	386,089	July 10	1108	296	44	226
Pool-ball box.....	F. Reinert.....	376,549	Jan. 17	1166	306	42	238
Pool-register.....	C. S. Krafft.....	383,581	May 29	2547	673	43	1033
Pop-corn balls. Machine for making.....	W. T. Goodwin, Jr.....	377,303	Jan. 31	2293	605	42	469
Porcelain-kiln.....	L. Boissonnet.....	383,695	May 29	2703	714	43	1067
Portable boat.....	C. W. King.....	389,817	Sept. 18	1538	407	44	1380
Portable drill.....	W. C. Jennings.....	382,472	May 8	900	229	43	689
Portable elevator.....	J. Dick.....	382,077	May 1	305	80	43	569
Portable elevator.....	J. T. Haines.....	387,512	Aug. 7	466	122	44	664

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Portable engine.....	J. Miller and M. J. Hogan.....	384,922	June 19	1613	{ 419 430 }	43	1444
Portable house.....	H. W. Goodnow.....	390,589	Oct. 2	548	145	45	110
Portfolio.....	G. Auth.....	385,085	June 26	1875	479	43	1506
Portfolio for maps, periodicals, &c.....	H. A. Hayden.....	390,366	Oct. 2	239	64	45	50
Post: See Fence-post. Hitching-post.							
Post.....	A. W. Tourgée.....	377,337	Jan. 31	2341	679	42	477
Post-anchor.....	F. Hay.....	377,070	Jan. 31	1956	514	42	404
Post-driving machine.....	M. F. Schaaf.....	387,369	Aug. 7	260	66	44	622
Post-extractor.....	W. R. Oyler.....	376,903	Jan. 24	1719	451	42	351
Post for veranda-railings.....	J. G. Schähfer.....	387,660	Aug. 14	703	181	41	714
Post-hole digger.....	W. Heaton.....	387,640	Aug. 14	676	175	44	708
Post-holes. Boring.....	D. Hess.....	392,918	Nov. 13	1088	282	45	812
Post-holes. Device for making.....	J. W. Bailey.....	382,853	May 15	1446	360	43	808
Post or pile driver.....	G. N. Oldham and W. M. Roberts.....	387,533	Aug. 7	493	129	44	669
Posts, &c. Preserving.....	C. W. Parker.....	378,459	Feb. 28	1681	441	42	846
Post-office box.....	J. McLane.....	393,652	Nov. 27	2180	571	45	1044
Post-office dater, canceler, and register. Combined.....	J. T. Argo.....	381,976	May 1	121	28	43	536
Postal date-holder.....	E. C. Walker.....	391,216	Oct. 16	1458	369	45	297
Postal package.....	H. R. Gillingham.....	389,565	Sept. 18	1159	304	44	1306
Pot: See Coffee-pot. Ink-pot. Coffee or tea p. Mustard-pot. Dash-pot. Tea and coffee pot. Dinner-pot. Transplanting-pot. Engine dash-pot. Type-metal pot.							
Pot-cover.....	A. G. Stilson.....	392,762	Nov. 13	865	221	45	768
Potassium carbonate. Obtaining.....	F. Brünjes.....	376,366	Jan. 10	903	.....	42	382
Potassium chlorate. Manufacture of.....	E. K. Muspratt and G. Eschellmann.....	388,997	Sept. 4	273	.....	44	1125
Potato-digger.....	S. L. Allen.....	387,331	Aug. 7	196	51	44	609
Potato-digger.....	L. A. Aspinwall.....	387,278	Aug. 7	112	30	44	594
Potato-digger.....	C. Babcock.....	378,646	Feb. 28	1942	516	42	900
Potato-digger.....	H. D. Binkley.....	376,229	Jan. 10	717	191	42	147
Potato-digger.....	P. A. Chippendale.....	379,682	Mar. 20	1206	319	42	1209
Potato-digger.....	D. Y. Halleck.....	376,086	Jan. 10	507	136	42	108
Potato-digger.....	J. Lee.....	381,706	Apr. 24	2111	552	43	447
Potato-digger.....	H. Levam.....	389,970	Sept. 25	1778	471	44	1435
Potato-digger.....	J. McCallum.....	393,380	Nov. 27	1761	467	45	961
Potato-digger.....	J. P. McLaren.....	391,059	Oct. 16	1240	330	45	255
Potato-digger.....	J. N. Mundell.....	394,650	Dec. 18	1403	366	45	1360
Potato-digger.....	T. N. Nicholson.....	394,286	Dec. 11	823	218	45	1238
Potato-digger.....	J. D. Perry.....	383,488	May 29	2419	642	43	1008
Potato-digger.....	J. D. Perry.....	388,911	Sept. 4	158	42	44	1103
Potato-digger.....	T. W. Powell.....	389,244	Sept. 11	689	175	44	1211
Potato-digger.....	C. Riechen.....	391,078	Oct. 16	1268	337	45	260
Potato-digger.....	C. Roberts.....	384,641	June 19	1197	317	43	1365
Potato-digger.....	C. Roberts.....	385,071	June 26	1859	475	43	1502
Potato-digger.....	W. Schrader.....	391,086	Oct. 16	1280	341	45	262
Potato-digger.....	A. B. Shants.....	380,771	Apr. 10	706	195	43	150
Potato-digger.....	A. N. Woodward.....	390,426	Oct. 2	318	84	45	67
Potato digger and picker.....	W. F. Conway.....	386,384	July 17	1540	408	44	314
Potato digger and separator. Combined.....	I. W. Hoover.....	382,363	May 8	733	165	43	658
Potato digging, cleaning, and assorting machine.....	E. A. and F. Cameron.....	379,098	Mar. 6	349	{ 99 100 }	42	1031
Potato-digging machine.....	W. Griffin.....	393,007	Nov. 20	1236	319	45	846
Potato-drill.....	J. L. Ulsh.....	379,745	Mar. 20	1295	346	42	1227
Potato-separator.....	J. H. Nowvloch.....	393,848	Dec. 4	168	45	45	1103
Potato sorter or grader.....	H. D. Herrington.....	385,114	June 26	1916	429	43	1515
Potato-sprinkler.....	G. A. Farrand.....	390,657	Oct. 9	638	{ 170 171 }	45	135
Pottery-kiln.....	A. Snow.....	394,622	Dec. 18	1343	351	45	1348
Pottery-machine.....	F. R. Reed.....	393,452	Nov. 27	1860	490	45	980
Pouch. Manure.....	W. H. Boyd.....	390,000	Sept. 25	1824	483	44	1443
Powder: See Photogenic powder.							
Powder and shot cabinet.....	A. La Point.....	382,817	May 15	1403	368	43	798
Powder-duster.....	L. W. Grasnack.....	385,456	July 3	185	49	44	37
Powder-dusting machine.....	E. A. Dodgson.....	388,184	Aug. 21	1538	409	44	821
Powder-filler.....	G. Blum.....	388,249	Aug. 21	1631	436	44	900
Power: See Animal or other Horse-power. power. Water-power.							
Power. Apparatus for the transmission of.....	T. D. Hollick and W. E. Rickard.....	381,138	Apr. 17	1280	{ 342 343 }	43	266
Power. Apparatus for transmitting.....	F. N. Du Bois.....	386,116	July 17	1154	{ 306 307 }	44	240
Power. Device for transmitting.....	C. T. A. H. Wiedling.....	384,598	June 12	1132	{ 298 299 }	43	1343
Power. Means for transmitting.....	E. F. Antenrieth.....	394,323	Dec. 11	876	231	45	1249
Power. Means for transmitting.....	E. F. Antenrieth.....	394,324	Dec. 11	878	232	45	1249
Power mechanism.....	G. Cottrell.....	378,192	Feb. 21	1269	336	42	761
Power mechanism.....	W. A. Howard.....	383,295	May 22	2118	559	43	947
Power-shears. Shear-blade for.....	J. P. Halpin.....	376,067	Jan. 10	509	136	42	109
Power tester. Coin-controlled band.....	A. F. Martel.....	386,206	July 17	1273	340	44	265
Power tester. Coin-controlled band.....	A. F. Martel.....	394,193	Dec. 11	671	180	45	1208
Power to traction-cables. Means for transmitting.....	W. H. Woodward.....	390,638	Oct. 2	608	162	45	122
Power transmitter. Water-current.....	M. V. B. Ethridge.....	382,959	May 15	1535	416	43	837
Power. Transmitting.....	A. Higginson.....	376,383	Jan. 10	924	242	42	186
Power-transmitting apparatus.....	C. C. Palmer.....	390,799	Oct. 9	835	223	45	172
Preserving apparatus.....	G. L. Merrill.....	391,907	Oct. 30	2430	657	45	508
Preserving. Composition for.....	C. W. Beesly.....	388,810	Sept. 4	4	2	44	1073
Preserving compound.....	R. McKinney.....	393,714	Nov. 27	2263	.....	45	1061
Preserving farinaceous products.....	T. T. Gaff.....	388,962	Sept. 4	229	.....	44	1116
Preserving fish.....	C. Thomson.....	391,436	Oct. 23	1763	.....	45	361

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Preserving food .....	H. Salzer .....	384,721	June 19	1320	.....	43	1388
Preserving food. Composition for .....	W. H. Daniels .....	386,386	July 17	1543	.....	44	315
Preserving fruits, &c .....	H. I. Blits .....	378,999	Mar. 6	206	.....	42	1005
Preserving goblet, tumbler, &c .....	A. Roder .....	375,955	Jan. 3	309	83	42	64
Preserving meat or fish. Apparatus for .....	J. L. Humaston .....	390,170	Sept. 25	2082	555	44	1497
Preserving sausages .....	C. Jensen .....	388,879	Sept. 4	111	.....	44	1094
Press:							
<i>See</i> Axle-collar press.      Hydraulic shaping-press.							
Baling-press.      Match-press.							
Brick-press.      Oil-press.							
Cigar-press.      Paint-press.							
Cigar-mold press.      Paint-can press.							
Copying-press.      Printing-press.							
Cotton-press.      Screw-press.							
Cutting-press.      Seal-press.							
Filter-press.      Shaping-press.							
Fruit-press.      Signature-press.							
Fruit-packing press.      Stamping-press.							
Gunpowder-press.      Stamping or embossing							
Hand-press.      press.							
Hay-press.      Tile-press.							
Press .....	J. P. Allen .....	377,132	Jan. 31	2045	535	42	421
Press .....	G. B. Boomer .....	385,541	July 3	313	80, 81	44	63
Press .....	R. E. Boschert .....	392,847	Nov. 13	995	{ 255 256 }	45	794
Press .....	D. Bromley .....	391,683	Oct. 23	2091	566	45	430
Press .....	L. D. Gordon .....	376,300	Jan. 10	809	214	42	164
Press for butter and other plastic material .....	(G. F. Johnson .....	376,097	Jan. 10	522	139	42	112
Press for butter or other plastic material .....	B. R. Rapp .....	392,882	Nov. 13	1038	268	45	803
Presses. Bale-ejecting attachment for .....	G. Calder .....	380,088	Mar. 27	1839	490	42	1311
Presses. Gear-power for .....	P. D. Roquemore .....	387,451	Aug. 7	375	97	44	646
Presses. Screw-bearing for .....	G. B. Boomer .....	378,950	Mar. 6	125	36	42	991
Pressing fabrics. Machine for .....	D. Gessner .....	387,292	Aug. 7	141	38, 39	44	599
Pressing fabrics. Machine for .....	G. W. Miller .....	392,050	Oct. 30	2639	{ 718 719 }	45	548
Pressure. Apparatus for controlling .....	J. I. Thornycroft .....	394,520	Dec. 11	1159	{ 301 302 }	45	1300
Pressure. Apparatus for regulating fluid .....	J. B. Stobaueus .....	379,667	Mar. 29	1189	313	42	1205
Pressure apparatus. Hydro-pneumatic .....	T. Arthur .....	383,429	May 29	2317	615	43	989
Pressure apparatus. Steam .....	N. C. Locke .....	393,164	Nov. 20	1435	375	45	888
Pressure brake. Fluid .....	H. Guels .....	391,962	Oct. 30	2508	679	45	523
Pressure brake. Fluid .....	H. Guels .....	393,367	Nov. 27	1740	461	45	956
Pressure engine. Electric fluid .....	G. Westinghouse, Jr .....	393,596	Nov. 27	2083	546	45	1026
Pressure-gage .....	C. B. Bosworth .....	393,610	Nov. 27	2115	553	45	1032
Pressure-gage and draft-regulator. Combined steam .....	M. Wilkes .....	389,730	Sept. 18	1424	371	44	1357
Pressure-gage. Mercury .....	E. Brown .....	379,305	Mar. 13	643	175	42	1093
Pressure gages. Combined cock and siphon for steam .....	E. A. Wood .....	379,038	Mar. 6	260	73	42	1015
Pressure governor. Fluid .....	R. Everitt .....	379,382	Mar. 13	751	204	42	1114
Pressure-indicator and recorder .....	W. H. Bristol .....	389,635	Sept. 18	1275	336	44	1327
Pressure-indicator. Electrical .....	O. B. Shallenberger .....	380,944	Apr. 10	965	256	43	197
Pressure motor. Fluid .....	W. R. Harris .....	376,821	Jan. 24	1604	420	42	328
Pressure of liquids. Device for reducing the .....	H. McLaren .....	393,021	Nov. 20	1246	323	45	850
Pressure or differences of pressure. Apparatus for indicating and recording .....	C. Herschel .....	387,877	Aug. 14	1016	264	44	774
Pressure-regulator .....	C. E. Brown .....	389,791	Sept. 18	1503	396	44	1374
Pressure-regulator .....	C. Eulich .....	389,065	Sept. 4	377	98	44	1144
Pressure-regulator .....	H. Gale and C. D. Wiselogle .....	383,877	June 5	38	12	43	1128
Pressure-regulator .....	A. G. Hohenstein .....	383,225	May 22	2009	523	43	928
Pressure-regulator .....	W. Meyer .....	392,447	Nov. 6	465	100	45	670
Pressure-regulator and cut-off .....	O. J. McGinn .....	380,444	Apr. 3	201	55	43	41
Pressure-regulator and cut-off .....	W. D. Thomas .....	378,342	Feb. 21	1565	373	42	805
Pressure-regulator and cut-off .....	G. Westinghouse, Jr .....	389,032	Sept. 4	331	87	44	1135
Pressure-regulator and safety-valve. Automatic .....	A. G. Hohenstein .....	383,226	May 22	2010	528	43	928
Pressure-regulator. Automatic fluid .....	W. D. Sheldou .....	379,824	Mar. 20	1429	319	42	1253
Pressure-regulator. Fluid .....	W. S. Clarkson .....	378,291	Feb. 21	1434	374	42	790
Pressure-regulator. Fluid .....	W. B. Mason .....	379,586	Mar. 20	1065	284	42	1182
Pressure-regulator. Fluid .....	W. B. Mason .....	383,426	May 22	2311	613	43	981
Pressure-regulator. Fluid .....	Z. C. Phillips .....	391,644	Oct. 23	2042	552	45	421
Pressure-regulator for air, gas, steam, or liquids .....	W. M. Jackson .....	389,082	Sept. 4	401	165	44	1149
Pressure-regulator. Self-acting or automatic .....	E. A. McLaughlin .....	383,314	May 22	2143	565	43	951
Primer. Electric .....	S. A. Day .....	389,448	Sept. 11	986	{ 264 265 }	44	1268
Printer and index-cutter. Combined .....	T. Wrigley .....	377,796	Feb. 14	708	{ 178 179 }	42	645
Printer's drying-rack .....	H. T. Koerner .....	392,735	Nov. 13	8 5	209	45	760
Printer's forms. Lock-up for .....	J. Ruesch .....	380,597	Apr. 3	441	124	43	90
Printer's galley .....	F. H. Boynton .....	378,654	Feb. 28	1073	519	42	901
Printer's galley .....	O. A. Dearing .....	381,117	Apr. 17	1256	337	43	261
Printer's galley .....	F. Schley .....	388,224	Aug. 21	1588	423	44	831
Printer's galleys. Side-stick for .....	E. P. Allhe .....	373,682	May 29	2677	710	43	1064
Printer's ink-roller .....	F. E. Lang .....	387,647	Aug. 14	688	177	44	711
Printer's rule-case .....	M. C. Harris .....	382,038	May 1	247	63, 64	43	559
Printer's rules. Machine for cutting .....	W. H. Golding .....	379,777	Mar. 20	1341	358	42	1237
Printer's rules. Machine for mitring .....	W. H. Golding .....	379,778	Mar. 20	1344	{ 358 359 }	42	1237
Printer's standing-galley .....	W. Severin .....	385,144	June 26	1959	501	43	1523
Printing .....	M. D. Wilkins .....	385,081	June 26	1869	477	43	1704
Printing and decorating china .....	W. H. Turner .....	391,346	Oct. 16	1633	.....	45	328
Printing and delivery mechanism. Web .....	S. D. Tucker .....	380,001	Mar. 27	1706	{ 456 457 512 }	42	1317
Printing apparatus. Ticket .....	G. B. Massey .....	391,544	Oct. 23	1909	{ 513 514 }	45	392
Printing block. Polychromatic .....	W. G. and R. A. A. White .....	386,859	July 31	2276	.....	44	474



*Alphabetical list of inventions.—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Printing blocks. Composition for polychromatic....	W. G. and R. A. A. White.....	388,099	Aug. 21	1382	.....	41	853
Printing device.....	S. G. Adams and J. B. Seymour, Jr.	379,884	Mar. 20	1531	405	42	1273
Printing envelopes. Blank attachment for tympan-sheets for	G. F. Kimball.....	385,060	June 26	1842	471	43	1498
Printing-film.....	P. G. Caspian.....	383,042	May 15	1747	.....	43	866
Printing floor-cloths, &c. Machinery for.....	J. Wright.....	389,995	Sept. 25	1818	481 482	44	1442
Printing gold, silver, or platinum decorations on ceramic ware.	M. Ehrlich and C. Störck.....	391,036	Oct. 16	1210	.....	45	249
Printing. Graining plates for surface.....	J. G. Harris.....	392,556	Nov. 6	554	140	45	701
Printing. Lithographic.....	J. W. Osborne.....	391,065	Oct. 16	1247	332 333	45	256
Printing-machine.....	T. S. Bowman.....	382,684	May 15	1230	319 320	43	764
Printing-machine.....	D. Carlaw.....	385,592	July 3	387	100 101	44	77
Printing-machine.....	C. B. Cottrell.....	385,099	June 26	1894	483 484	43	1510
Printing-machine.....	J. H. Earl.....	384,432	June 12	884	230	43	1297
Printing-machine.....	D. I. Eckerson.....	387,500	Aug. 7	444	116 117 118	41	660
Printing-machine.....	J. Keller.....	394,700	Dec. 18	1468	353	45	1373
Printing-machine.....	R. Mieble.....	391,178	Oct. 16	1407	375 376	45	286
Printing machine. Color.....	W. H. Fuller.....	389,561	Sept. 18	1154	303	44	1306
Printing-machine. Cylinder.....	J. T. King.....	377,432	Feb. 7	72	24	42	519
Printing-machine. Cylinder.....	A. O. Nash.....	387,249	Aug. 7	73	17, 18	41	585
Printing-machine. Cylinder.....	M. Vierengel.....	379,188	Mar. 6	456	129 130	42	1053
Printing-machine. Lithographic.....	J. T. Hawkins.....	385,860	July 10	787	209	44	160
Printing machine. Plate.....	A. M. Marcilly.....	379,235	Mar. 13	541	151 152	42	1074
Printing-machine. Platen.....	C. F. Howe.....	376,956	Jan. 24	1789	470 471	42	364
Printing-machine. Rotary.....	J. L. Cox.....	392,540	Nov. 6	531	134	45	696
Printing-machine sheet-delivery mechanism.....	J. T. Hawkins.....	389,650	Sept. 18	1305	342	44	1342
Printing machine. Ticket.....	W. H. Curtis.....	380,278	Mar. 27	2091	560	42	1393
Printing machine. Ticket.....	C. F. and W. B. Huff.....	383,954	June 5	164	49	43	1152
Printing machine. Wad.....	P. Selby.....	382,441	May 8	848	216 217	43	680
Printing machine. Web.....	J. H. Stonemetz.....	376,053	Jan. 3	456	122 123	42	91
Printing-machines. Accumulating sheets for.....	L. E. Brookes.....	376,288	Jan. 10	795	210 211	42	162
Printing-machines. Air spring or cushion for.....	C. P. Cottrell.....	383,630	May 29	2614	691	43	1049
Printing-machines. Bed-motion for cylinder.....	C. H. Campbell.....	379,933	Mar. 27	1610	428 429	42	1297
Printing-machines. Delivery mechanism for.....	L. C. Crowell.....	383,799	May 29	2883	759 760 761	43	1101
Printing-machines. Delivery mechanism for.....	L. C. Crowell.....	383,800	May 29	2888	761 762 763	43	1101
Printing-machines. Delivery mechanism for.....	G. P. Fenner.....	389,800	Sept. 18	1519	401 402	44	1377
Printing-machines. Feed-gage for platen.....	F. A. Bagley.....	380,240	Mar. 27	2045	546	42	1383
Printing-machines. Feed guide for.....	J. T. Hawkins.....	388,038	Aug. 21	1282	347	44	835
Printing-machines. Gripper for platen.....	H. F. Beehman.....	378,160	Feb. 21	1229	321	42	753
Printing-machines. Gripper mechanism for.....	C. B. Cottrell.....	391,515	Oct. 23	1871	502	45	384
Printing-machines. Ink-distributing device for.....	J. Hackett.....	378,441	Feb. 28	1657	435	42	842
Printing-machines. Inking apparatus for.....	C. B. Cottrell.....	385,098	June 26	1293	43	43	1510
Printing-machines. Inking apparatus for.....	J. T. Hawkins.....	382,979	May 15	1623	424 606 607 608	43	842
Printing-machines. Inking apparatus for.....	R. M. Hoe and D. Weckerlin.....	388,680	Aug. 28	2263	607	44	1027
Printing-machines. Means for securing printing-plates to beds or cylinders of.....	E. S. Boynton.....	391,733	Oct. 23	2164	584	45	444
Printing-machines. Method of and apparatus for dissipating electricity in delivering sheets from.....	W. C. Rossney and C. L. Hunt.....	391,820	Oct. 30	2303	324	45	482
Printing-machines. Operating mechanism for type-beds of cylinder.....	C. Kahler and L. E. Brookes.....	388,050	Aug. 21	1300	351	44	837
Printing-machines. Set-off mechanism for.....	B. Huber and W. K. Hodgman.....	393,471	Nov. 27	1905	498	45	987
Printing-machines. Sheet-delivery apparatus for.....	C. B. Cottrell.....	385,100	June 26	1898	484	43	1511
Printing-machines. Sheet-delivery apparatus for.....	C. B. Cottrell.....	387,768	Aug. 14	860	222	44	744
Printing machines. Sheet-delivery apparatus for.....	J. T. Hawkins.....	393,978	Dec. 4	358	96	45	1140
Printing-machines. Web turning and reversing device for.....	J. C. Fowler and E. A. Henkl.....	383,568	May 29	2532	668	43	1029
Printing mediums or films. Adjustable frame for holding.....	P. G. Caspian.....	392,586	Nov. 13	606	152	45	717
Printing musical and other characters. Device for.....	G. Becker and D. Mœnnier.....	381,902	May 1	8	2	43	516
Printing oil-cloth. Machine for.....	N. L. Tuck.....	377,789	Feb. 14	690	175 176 177	42	642
Printing or numbering machines. Apparatus for receiving tickets from ticket.....	J. Graham.....	381,126	Apr. 17	1269	339 340	43	264
Printing-press.....	J. M. Jones.....	379,958	Mar. 27	1644	458	42	1303
Printing-press.....	G. W. Prouitt.....	390,139	Sept. 25	2031	541	41	1486
Printing-press.....	T. D. Worrall.....	382,345	May 8	703	177	43	651
Printing-press and ruling-machine. Coulined.....	J. Dale.....	380,191	Mar. 27	1976	529 530	42	1369
Printing-press cylinders. Reversing-gear for.....	G. D. Ernst.....	381,991	May 1	153	39	43	543
Printing-press gage-pin.....	E. L. Megill.....	377,949	Feb. 14	924	239	42	688
Printing-press gage-pin.....	E. L. Megill.....	377,950	Feb. 14	925	239	42	688
Printing-press gage-pin.....	E. L. Megill.....	377,951	Feb. 14	926	240	42	688
Printing-presses. Adjustable side guide for.....	T. L. Knudtson and J. Uhri.....	383,816	May 29	2911	768	43	1106

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Printing-presses. Feed-gage for.....	E. L. McGill .....	393,480	Nov. 27	1917	501	45	990
Printing-presses. Feed-gage for platen.....	F. A. Bagley .....	387,033	July 31	2324	{ 663 664 }	44	523
Printing-presses. Folding machinery for.....	G. W. Kendall.....	389,656	Sept. 18	1315	{ 343 344 }	44	1334
Printing-presses. Ink-fountain for.....	G. W. Prouty.....	386,350	July 17	1491	396	44	305
Printing-presses. Ink-fountain for.....	H. Swain.....	390,994	Oct. 9	1128	298	45	226
Printing-presses. Ink-fountain for platen.....	W. H. Price, Jr.....	384,216	June 5	554	152	43	1228
Printing-presses. Inking apparatus for.....	G. W. Prouty.....	378,110	Feb. 21	1148	299	42	738
Printing-presses. Inking apparatus for.....	W. Scott.....	393,179	Nov. 20	1456	350	45	892
Printing-presses. Inking attachment for.....	J. R. Brodie.....	376,426	Jan. 17	994	260	42	206
Printing-presses. Perforator for.....	R. and G. Kennedy.....	380,578	Apr. 3	412	117	43	84
Printing-presses. Receiving-table for cylinder.....	F. W. Baltes.....	382,402	May 8	789	300	43	669
Printing-presses. Sheet-delivery mechanism for.....	J. T. Hawkins.....	395,231	Dec. 25	2354	603	45	1549
Printing-presses. Sheet-straightener for.....	H. Loewenbach and W. F. H. Matter.....	381,800	Apr. 24	2237	366	43	471
Printing-presses. Throw-off mechanism for job.....	A. P. Barber.....	376,059	Jan. 10	467	125	42	101
Printing-roller machine. Hand.....	J. H. Eiermann.....	388,031	Aug. 21	1267	314	44	832
Printing-transfer process.....	J. Baynes.....	378,419	Feb. 28	1614	425	42	833
Printing with gold, silver, or platinum. Producing a bright Privy.....	M. F. L. Ehrlich and C. T. Storek.....	391,035	Oct. 16	1208	45	249	
Privy.....	W. J. Wharton.....	380,540	Apr. 3	352	101	43	72
Privy-seat.....	C. Kelley and J. Ball.....	379,538	Mar. 13	983	{ 264 265 }	42	1150
Projectile.....	H. Bischoff and A. Mieg.....	394,673	Dec. 18	1428	372	45	1364
Projectile.....	W. H. Brown.....	376,728	Jan. 24	1450	381	42	301
Projectile.....	M. E. Gregg.....	376,302	Jan. 10	810	214	42	165
Projectile.....	J. R. Hawley.....	384,574	June 12	1097	248	43	1337
Projectile.....	J. R. Hawley and H. P. Hurst.....	388,443	Aug. 28	1887	504	44	955
Projectile.....	H. P. Hurst.....	391,367	Oct. 16	1664	440	45	334
Projectile.....	E. L. Zalinski.....	384,663	June 19	1232	325	43	1371
Projectile. Line-throwing.....	J. N. Fletcher.....	376,375	Jan. 10	914	240	42	184
Projectile. Wolfram.....	A. Mieg and H. Bischoff.....	382,717	May 15	1269	332	43	771
Projectiles. Discharging.....	W. M. Jackson.....	387,517	Aug. 7	471	124	44	665
Prop spring. Top.....	A. C. Ohlsen.....	379,281	Mar. 13	605	166	42	1086
Propeller.....	W. N. Chandler.....	378,660	Feb. 28	1967	522	42	904
Propeller.....	L. Greget.....	387,783	Aug. 14	880	227	44	748
Propeller. Buoyant.....	F. M. Smith.....	394,731	Dec. 18	1519	{ 397 398 }	45	1385
Propeller. Buoyant.....	O. Vandenburgh.....	377,181	Jan. 31	2104	555	42	435
Propeller. Feathering.....	R. Wilcox.....	380,967	Apr. 10	1003	{ 258 259 }	43	204
Propeller for boats. Vibrating.....	D. B. Rowland.....	391,196	Oct. 16	1430	382	45	291
Propeller for vessels.....	H. B. Allison.....	387,616	Aug. 14	645	167	44	703
Propeller for vessels. Chain.....	F. M. Smith.....	394,732	Dec. 18	1520	398	45	1385
Propeller for vessels. Screw.....	F. G. White.....	382,398	May 8	782	199	43	668
Propeller. Pneumatic.....	C. H. Gebel.....	393,701	Nov. 27	2248	589	45	1078
Propeller. Screw.....	A. Conrad.....	386,966	July 31	2431	639	44	505
Propeller. Screw.....	A. D. Hall and G. B. Sloan.....	387,229	Aug. 7	45	10	44	580
Propeller. Screw.....	H. D. Hodgeman.....	390,367	Oct. 2	240	64	45	50
Propeller. Screw.....	C. G. Nye.....	390,615	Oct. 2	575	133	45	116
Propeller. Screw.....	B. F. Sparrow.....	394,414	Dec. 11	1009	264	45	1223
Propeller. Screw.....	A. Vogelsang.....	381,193	Apr. 17	1357	363	43	220
Propeller. Screw.....	T. T. Woodruff.....	387,671	Aug. 14	719	{ 184 185 }	44	718
Propeller. Screw.....	A. T. Zeise.....	389,430	Sept. 11	955	250	44	1262
Propeller. Vibrating.....	I. G. Howell.....	386,586	July 24	1852	489	44	386
Propeller-wheel.....	J. E. T. Bartlett.....	384,498	June 12	993	259	43	1317
Propeller-wheel.....	J. S. Bishop.....	381,104	Apr. 17	1236	{ 331 332 }	43	257
Propeller-wheel.....	W. L. Strong.....	378,221	Feb. 21	1314	349	42	770
Propellers. Paddle-belt for.....	W. H. Silsby.....	381,286	Apr. 17	1486	400	43	305
Propelling and steering apparatus. Boat.....	G. S. Adams.....	391,770	Oct. 30	2211	5 9	45	465
Propelling and steering apparatus. Boat.....	J. Hermans.....	379,014	Mar. 6	223	60	42	1069
Propelling and steering apparatus for ships, &c.....	J. I. Thornycroft.....	386,041	July 10	1037	276	41	212
Propelling apparatus for boats.....	A. Buck and A. Burkard.....	388,395	Aug. 28	1864	428	44	950
Propelling apparatus for vessels.....	L. McMurray.....	391,481	Oct. 23	1824	458	45	374
Propelling canal-boats.....	H. H. Baker.....	380,781	Apr. 10	722	198	43	152
Propelling canal-boats. System and apparatus for.....	C. F. Cassleman.....	381,675	Apr. 24	2065	559	43	438
Propelling device.....	W. Johnston.....	381,625	Apr. 24	1996	521	43	423
Propelling mechanism. Boat.....	A. B. Smith.....	377,123	Jan. 31	2035	333	42	419
Propelling vessels. Apparatus for.....	B. T. Babbitt.....	391,932	Oct. 30	2466	667	45	514
Propulsion and steering of steam-vessels.....	C. E. Lamburth.....	386,991	July 31	2467	648	44	512
Propulsion. Marine.....	W. M. Jackson.....	385,182	June 25	2307	545	43	1533
Propulsion. Marine.....	W. M. Jackson.....	385,183	June 26	2011	545	43	1534
Propulsion. Marine.....	W. M. Jackson.....	385,184	June 26	2013	546	43	1534
Propulsion of ships or vessels. Apparatus for the.....	E. Grillon.....	381,235	Apr. 17	1416	{ 381 382 }	43	221
Protector:							
See Beam-end protector. Eye, face, and lung pro-							
Book-protector. tector.							
Boot-protector. Garment-protector.							
Check-protector. Heel-protector.							
Check and pad pro- Leg or foot protector.							
jector. Line-protector.							
Chimney-protector. Pails-protector.							
Coat-protector. Plant-protector.							
Corset steel protec- Shoe-protector.							
tor. Stamp-protector.							
Dress-protector. Trace-eye protector.							
Ear-protector. Tree-protector.							
Electric-light and Vest-protector.							
globe protector. Wall-protector.							
Eye-protector. Watch-protector.							
Protractor.....	G. Almerth.....	387,481	Aug. 7	412	108	44	653
Protractor.....	S. Darling.....	376,430	Jan. 17	1000	262	42	207

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & A.	Vol.	Page.
Provision-box and table. Combined	C. B. Rice	380,218	Mar. 27	2014	539	42	1376
Pruning implement	A. Bethscheider	388,111	Aug. 21	1399	376	41	856
Pruning implement	A. Bosch	379,359	Mar. 13	716	195	42	1107
Pruning implement	F. A. Hall	390,106	Sept. 25	2077	554	41	1196
Pruning implement	G. James	394,187	Dec. 11	663	178	45	1207
Pruning implement	M. C. Malone	380,583	Apr. 3	419	119	43	85
Pruning implement	J. N. Parker	377,956	Feb. 11	931	242	42	690
Pruning shears	C. J. Meyerholz	392,049	Oct. 30	2638	718	45	518
Pruning shears	W. C. Woolley and D. Behmer	393,197	Nov. 20	1459	3-9	45	898
Puddling-furnace	T. C. Jones	389,574	Sept. 18	1173	308	41	1399
Pug-mill	H. Woodcock	388,167	Aug. 21	1511	402	41	876
Puller:							
See Plant-puller.							
Spike-puller.							
Stump-puller.							
Pulley	H. W. Beldsmeier	384,501	June 12	998	260	43	1318
Pulley	W. R. Fre	379,946	Mar. 27	1627	433	42	1300
Pulley	W. H. King	382,042	May 1	252	65	43	559
Pulley	A. P. Sibley	384,871	June 19	1548	402	43	1141
Pulley	H. H. Thorp	393,041	Nov. 20	1277	331	45	857
Pulley	J. Toney	393,941	Dec. 4	301	82	45	1130
Pulley. Adjustable	J. Boyer	395,208	Dec. 25	2305	591	45	1541
Pulley. Band	S. S. Barrie	380,077	Mar. 27	1826	486	42	1329
Pulley. Band	J. J. McLain	394,712	Dec. 18	1486	388	45	1376
Pulley. Band	J. Wiley	382,448	May 8	859	219	43	6-2
Pulley. Belt	G. F. Haven and S. H. Post	379,111	Mar. 6	367	104	42	1034
Pulley. Belt	J. G. Moomy	391,180	Oct. 16	1409	376	45	2-6
Pulley-block	C. B. De Lamarre	390,845	Oct. 9	905	229	45	184
Pulley-block	T. R. Ferrall	390,217	Oct. 2	38	10	45	10
Pulley-block	S. H. M. and F. G. Leib	378,625	Feb. 28	1914	506	42	804
Pulley-bushing	J. J. Mahoney	381,151	Apr. 17	1298	347	43	269
Pulley. Clutch	M. F. Williams	393,682	Nov. 27	2222	5-2	45	1053
Pulley-cover	J. G. Jebb	377,161	Jan. 31	2079	547	42	429
Pulley. Expanding	J. L. Yuley and H. W. Andrews	389,276	Sept. 11	736	187	44	1220
Pulley. Expansion	E. F. Antenrieth	393,602	Nov. 27	2097	519	45	1028
Pulley for variable speed	J. F. Welch	377,281	Jan. 31	2257	597	42	462
Pulley. Friction	E. W. Rhone	386,719	July 21	2032	535	41	421
Pulley. Friction-clutch	A. P. Kjoller	384,915	June 19	1605	417	43	1442
Pulley-key	P. McDermott	378,260	Feb. 21	1385	362	42	7-1
Pulley. Loose	S. A. Woods and J. R. Thomas	388,942	Sept. 4	206	54	44	1111
Pulley lubricator. Loose	R. A. Austin	376,466	Jan. 17	1051	275	42	216
Pulley. Self-lubricating	W. T. Carroll	376,633	Jan. 17	1304	343	42	264
Pulley. Self-lubricating loose	J. D. Wirth	380,007	Mar. 27	1723	461	42	1319
Pulley. Split	J. Bruss	381,014	June 5	255	73	43	1170
Pulley. Split	W. L. Field	388,190	Aug. 21	1545	411	44	8-2
Pulley. Split	J. B. Hicks and F. C. Brooksbank	385,712	July 10	571	148	44	118
Pulley. Split	C. R. Hussey	392,259	Nov. 6	135	34	45	620
Pulley. Split	E. C. Tecktonius	393,936	Dec. 4	295	80	45	1129
Pulley. Split	A. H. Wagner	390,102	Sept. 25	1983	527	44	1476
Pulley. Split	J. T. Willingham	395,256	Dec. 25	2387	611	45	1556
Pulley. Split	W. A. Willingham	389,789	May 29	2866	753	43	1097
Pulley. Wood split	W. R. Fee	393,326	Nov. 20	1681	443	45	937
Pulley. Wood split	W. R. Fee	393,327	Nov. 20	1682	443	45	937
Pulley. Wooden split	W. R. Fee	379,192	Mar. 6	474	134	42	1057
Pulleys. Apparatus for putting driving-belts on	H. R. Leichsenring	382,046	May 1	258	66	43	560
Pulleys. Bushing for shaft	W. N. Schindler and W. Mikel	392,369	Nov. 6	925	72	45	649
Pulleys. Bushing for split	A. P. Sibley and G. O. Ware	394,407	Dec. 11	1002	262	45	1272
Pulleys. Clutch for band	W. H. Smith	380,952	Apr. 10	979	250	43	199
Pulleys, rollers, &c. Composition for covering	W. A. and A. F. Luther	395,283	Dec. 25	2432	621	45	1563
Pulleys. Slip-collar for	C. W. Shattle	394,729	Dec. 18	1517	397	45	1384
Pulleys to shafts. Means for securing	L. M. Batty	377,661	Feb. 7	471	120	42	5-4
Pulp-cylinders. Machine for forming	W. P. Stevens	375,839	Jan. 3	154	43	42	35
Pulp-digesters. Lining for	S. R. Wagg	390,727	Oct. 9	735	193	45	154
Pulp-grinder	D. T. Mills	393,075	Nov. 20	1315	343	45	864
Pulp or paper mills. Screen-scraper for	M. V. Streeter	383,026	May 15	1706	443	43	858
Pulp-reducing machine	M. J. Corley	389,202	Sept. 11	613	157	44	1195
Pulverizer	A. H. Bliss	377,288	Jan. 31	2273	600	42	405
Pulverizer	P. W. Gates	380,432	Apr. 3	179	49, 50	43	37
Pulverizer	A. Jamieson	382,361	May 2	735	185	43	658
Pulverizer and cultivator	J. Davis	392,190	Nov. 6	20	6	45	598
Pulverizer and harrow	A. H. Tripp	376,927	Jan. 24	1751	460	42	357
Pulverizer and weeder. Combined	E. C. Elwell	379,308	Mar. 13	640	176	42	1091
Pulverizer. Centrifugal	J. Behm	392,488	Nov. 6	459	115	45	6-1
Pulverizer. Clay	J. and H. M. Creager	385,342	July 3	7	3	44	4
Pulverizer. Calc	A. G. Gillette	390,852	Oct. 9	914	241	45	1-5
Pulverizer. Wheeled	E. Elliott	388,349	Aug. 21	1781	476	44	931
Pulverizing-machine	J. W. Hilton	393,905	Dec. 4	256	69	45	1121
Pulverizing-machine	A. D. Sr., A. D., Jr., and D. C. Searls	376,112	Jan. 10	511	144	42	115
Pulverizing-machine. Soil	M. W. Enos	392,320	Nov. 6	204	53	45	623
Pump	M. J. Althouse	384,185	June 5	509	159	43	1240
Pump	W. D. Andrews	390,332	Oct. 2	183	50	45	39
Pump	G. W. Arnold and W. C. Hill	382,239	Aug. 21	1608	430	41	8-6
Pump	J. H. Bruce	387,138	July 31	2689	704	44	550
Pump	W. H. Burnham and J. H. Miller	381,212	Apr. 17	1277	368	43	2-4
Pump	J. C. Carter	377,766	Feb. 28	2410	557	42	930
Pump	G. H. Canghreen	385,842	July 10	761	200	41	155
Pump	A. E. Clark	392,008	Oct. 30	2576	701	45	526
Pump	H. M. Close	384,678	June 19	1253	329	43	1376
Pump	H. M. Close	384,679	June 19	1255	330	43	1376

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Pump.....	W. W. Cully.....	381,532	Apr. 24	1865	493	43	398
Pump.....	J. B. Drake.....	384,749	June 19	1357	354	43	1395
Pump.....	W. J. Hearn.....	376,382	Jan. 10	923	242	42	185
Pump.....	D. S. Hines.....	387,074	July 31	2584	680	44	534
Pump.....	W. Keast.....	393,565	Nov. 27	2039	534	45	1017
Pump.....	W. Keast.....	394,699	Dec. 18	1467	383	45	1373
Pump.....	S. La Point.....	376,960	Jan. 24	1704	472	42	365
Pump.....	G. H. Laub.....	379,233	Mar. 13	539	150	42	1073
Pump.....	E. D. Leavitt, Jr.....	380,330	Apr. 3	35	13	43	9
Pump.....	W. B. McGinnis.....	379,237	Mar. 13	545	152	42	1075
Pump.....	J. A. Murray.....	384,706	June 19	1304	311	43	1385
Pump.....	P. A. Myers.....	393,311	Nov. 20	1652	436	45	931
Pump.....	E. Neff.....	378,402	Feb. 21	1565	416	42	820
Pump.....	E. Neff.....	381,808	Apr. 24	2247	588	43	472
Pump.....	J. North.....	380,510	Apr. 3	308	89	43	62
Pump.....	J. North.....	385,319	June 26	2229	571	43	1576
Pump.....	C. P. Rinker.....	391,079	Oct. 16	1269	337	45	260
Pump.....	C. Rodenbaugh.....	393,176	Nov. 20	1451	379	45	891
Pump.....	W. N. Starr.....	392,077	Oct. 30	2677	729	45	555
Pump.....	J. Stevens.....	384,648	June 19	1206	318	43	1367
Pump.....	M. H. Timberlake.....	383,780	May 29	2253	750	43	1695
Pump.....	A. J. Tyler.....	394,088	Dec. 4	515	{ 138 139 }	45	1170
Pump.....	J. W. Vameter.....	389,725	Sept. 18	1418	370	44	1366
Pump.....	D. Walckircher.....	380,466	Apr. 3	234	63	43	48
Pump.....	H. J. Wells.....	389,031	Sept. 4	330	86	44	1134
Pump.....	P. E. Wistrand.....	391,871	Oct. 30	2374	644	45	496
Pump.....	J. Woodward and R. Anderson.....	388,943	Sept. 4	208	55	44	1112
Pump.....	H. M. Wyeth.....	386,910	July 31	2355	618	44	489
Pump. Air.....	H. J. Doerf.....	378,666	Feb. 28	1976	524	42	906
Pump. Air.....	F. J. Wills.....	386,316	July 24	1755	{ 463 464 }	44	768
Pump and aerating device. Beer.....	D. Dunn.....	377,711	Feb. 7	542	138	42	506
Pump and regulator. Windmill.....	G. A. Carter.....	392,852	Nov. 13	1002	257	45	795
Pump and windmill head.....	J. P. Schuckman.....	381,086	June 5	378	101	43	1190
Pump apparatus. Portable force.....	J. A. Parsons.....	383,486	May 29	2417	641	43	1008
Pump attachment.....	T. Dingley.....	385,004	June 26	1903	485	43	1512
Pump attachment.....	A. J. Tyler.....	394,087	Dec. 4	511	138	45	1169
Pump. Automatic.....	F. Romain.....	393,520	Nov. 27	1979	517	45	1004
Pump. Beer.....	R. Wellens.....	385,981	July 10	956	254	44	195
Pump. Bilge.....	N. Richardson.....	394,725	Dec. 18	1508	394	45	1382
Pump. Centrifugal.....	E. L. Stream.....	387,264	Aug. 7	94	21	44	590
Pump. Chain.....	C. A. Bartlett.....	385,786	July 10	679	177	44	140
Pump. Chain.....	J. J. De Silva.....	380,425	Apr. 3	172	47	43	35
Pump. Compound air-compressing.....	E. C. Fasoldt.....	385,833	July 10	780	206	44	139
Pump. Crank.....	J. J. De Rycke.....	378,665	Feb. 28	1973	{ 523 524 }	42	905
Pump. Deep-well.....	P. A. Myers.....	384,585	June 12	1114	225	43	1340
Pump. Double-acting.....	A. Reiling.....	390,901	Oct. 9	979	258	45	198
Pump. Double-acting.....	D. Webster.....	376,696	Jan. 17	1399	368	42	281
Pump. Double-acting force.....	J. M. Normand.....	391,885	Apr. 24	2385	620	43	498
Pump. Double-acting force.....	W. S. Shaban.....	391,563	Oct. 23	1932	521	45	398
Pump. Double-acting force.....	A. J. Tyler.....	394,086	Dec. 4	509	{ 136 137 }	45	1169
Pump. Double-acting suction and force.....	M. Harrold.....	389,886	Sept. 25	1661	440	44	1410
Pump. Force.....	T. M. Beer.....	395,205	Dec. 25	2300	590	45	1540
Pump. Force.....	G. A. Carter.....	383,703	May 29	2718	717	43	1071
Pump. Force.....	S. F. Farrow.....	394,065	Dec. 4	483	129	45	1164
Pump. Force.....	C. W. Kinder.....	377,833	Feb. 14	757	{ 192 193 }	42	653
Pump. Force.....	H. M. Lourie.....	384,633	June 19	1788	314	43	1363
Pump. Force.....	A. D. Shelmtt.....	378,338	Feb. 21	149	392	42	603
Pump. Force.....	H. C. Stouffer.....	389,419	Sept. 11	942	247	44	1259
Pump. Force.....	B. C. Vanduzen.....	377,054	Jan. 31	1927	506	42	399
Pump governor. Air.....	E. G. Moore.....	378,609	Feb. 28	189	500	42	889
Pump. Hydraulic.....	J. H. Martin.....	384,050	June 5	311	81	43	1180
Pump. Hydraulic air.....	E. H. Weatherhead.....	383,028	May 15	1708	444	43	859
Pump. Lift.....	I. C. N. Sweet.....	391,435	Oct. 23	1760	471	45	360
Pump. Lift or force.....	J. North.....	380,509	Apr. 3	306	89	43	62
Pump or blower. Duplex.....	J. Dow.....	378,042	Feb. 14	1047	{ 273 274 }	42	712
Pump. Oscillating.....	L. J. P. Pontallie.....	386,717	July 24	2029	534	41	420
Pump. Oscillating.....	L. J. P. Pontallie.....	391,189	Oct. 16	1419	{ 373 380 }	45	289
Pump-piston and check-valve. Combined.....	J. M. Normand.....	378,848	Feb. 28	2254	600	42	958
Pump. Plunger.....	W. O. Webber.....	391,667	Oct. 23	2069	{ 560 561 }	45	426
Pump-rod attachment.....	S. Barr.....	377,225	Jan. 31	2173	573	49	447
Pump-rod attachment. Windmill.....	W. H. H. Dabney.....	376,710	Jan. 17	1430	373	42	286
Pump-rod. Compensating.....	W. H. Burnham and J. H. Miller.....	381,211	Apr. 17	1376	368	43	284
Pump-rod. Elastic.....	G. D. Pierce.....	389,320	Sept. 11	797	203	44	1231
Pump-rods. Spring-connection for.....	W. F. Klaus.....	390,683	Oct. 9	674	179	45	142
Pump. Rotary.....	W. B. Allyn.....	385,832	July 10	746	195	41	152
Pump. Rotary.....	W. W. Lockwood.....	391,852	Oct. 30	2350	638	45	491
Pump. Rotary.....	O. Seifert.....	383,996	June 5	230	67	43	1166
Pump. Rotary.....	E. F. Smith.....	395,085	Dec. 25	2079	544	45	1505
Pump. Spraying.....	A. Weaber.....	383,261	May 22	2070	543	43	938
Pump. Steam.....	T. Hill.....	377,938	Feb. 14	906	{ 232 233 234 }	42	684
Pump. Steam.....	A. F. Werner.....	386,369	July 17	1517	402	44	310
Pump. Stomach.....	H. W. Parsons.....	386,603	July 24	1871	494	44	390
Pump-valve.....	C. F. Hoyt.....	383,811	May 29	2904	766	43	1104
Pump-valve.....	M. W. Murphy.....	378,846	Feb. 28	2250	599	42	957

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Pump valve. Steam.....	T. H. Williams.....	388,941	Sept. 4	202	54	44	1111
Pump. Well.....	O. E. Davidson.....	386,456	July 24	1663	439	44	352
Pumps. Aerating attachment for chain.....	W. Mild.....	383,476	May 29	2394	637	43	1004
Pumps. Apparatus for operating oil-well.....	C. C. Stover.....	383,025	May 15	1705	413	43	858
Pumps. Gearing for operating.....	A. Swanson.....	395,398	Dec. 25	2442	628	45	1566
Pumps. Pawl-and-ratchet device for chain.....	F. E. Gordon.....	392,266	Nov. 6	131	33	45	619
Pumps. Pressure-regulator for.....	P. Schuff.....	378,726	Feb. 28	2057	543	42	920
Pumps. Spring-motor for.....	C. M. Reed and W. C. Frazee.....	387,736	Aug. 14	819	211	44	735
Pumps. Valve for steam.....	E. A. Marsh.....	394,656	Dec. 18	1399	365	45	1359
Pumps. Vent-stopper for.....	A. Scungal.....	383,773	May 29	2841	747	43	1093
Pumps. Working-valve for.....	J. A. Hoffman.....	388,871	Sept. 4	101	27	44	1092
Pumping apparatus. Electrical.....	F. J. Sprague.....	385,211	June 26	2054	527	43	1543
Pumping apparatus. Horse-power.....	H. D. White.....	380,840	Apr. 10	805	219	43	167
Pumping-engine.....	H. Davey.....	391,457	Oct. 23	1793	479	45	367
Pumping-engine.....	E. G. Shortt.....	389,769	Sept. 18	1471	385 386	44	1367
Pumping-engine. Duplex.....	E. G. Shortt.....	389,770	Sept. 18	1474	386 387	44	1367
Pumping-engine regulator.....	E. N. Dickerson, Jr.....	380,025	Mar. 27	1750	468	42	1323
Pumping-engine. Steam.....	J. H. Vaile.....	393,943	Dec. 4	303	82, 83	45	1130
Pumping mechanism. Oil or Artesian well.....	H. H. Argue.....	380,615	Apr. 3	465	131 132	43	94
Punch.....	A. Burrowes.....	376,136	Jan. 10	587	157	42	123
Punch.....	C. J. Ericson.....	386,392	July 17	1549	410	44	316
Punch.....	M. D. Knowlton.....	384,532	June 12	1036	270	43	1325
Punch.....	A. H. Raynal.....	376,009	Jan. 3	396	105	42	79
Punch.....	J. J. Walton.....	385,687	July 3	528	138	44	104
Punch and die.....	E. F. Gennert and D. N. Gleason.....	382,357	May 8	724	182 183	43	656
Punch. Belt.....	H. L. T. Overbey.....	383,237	May 22	2027	532	43	931
Punch. Check.....	J. C. Lowdon.....	386,785	July 24	2131	560	44	439
Punch. Compound-lever.....	C. M. Brown.....	382,947	May 15	1580	412	43	834
Punch for perforating sheet metal.....	C. P. O'Neill.....	389,404	Sept. 11	918	240	44	1255
Punch. Hand.....	W. Yates.....	385,897	July 10	851	225	44	174
Punch. Metal.....	W. Snec.....	378,341	Feb. 21	1504	393	42	804
Punch. Paper.....	J. C. Jensen.....	385,056	June 26	1834	470	43	1497
Punch. Rail.....	I. Hulme.....	388,977	Sept. 4	253	67	44	1120
Punch-register. Electric.....	A. C. Palmer.....	383,485	May 29	2414	641	43	1007
Punch. Spring.....	W. C. Jones.....	378,549	Feb. 28	1805	477	42	873
Punch. Ticket.....	H. Myers.....	386,437	July 17	1624	427	44	335
Punch. Ticket.....	R. Woodman.....	392,298	Nov. 6	172	45	45	626
Punches. Clamp and die for.....	J. N. Kelly.....	390,663	Oct. 9	926	244	45	188
Punching and shearing machine.....	E. Jones.....	399,655	Sept. 18	1314	343	44	1334
Punching and shearing machine.....	W. and C. W. Sleepor.....	393,036	Nov. 20	1270	328	45	855
Punching and shearing machine.....	C. Weber and H. Schneider.....	383,200	May 22	1968	516 517	43	919
Punching and shearing machine. Combined.....	H. A. Ridley.....	392,362	Nov. 6	275	70	45	647
Punching and shearing machine. Metal.....	G. McDonald.....	377,264	Jan. 31	2232	590	42	457
Punching cards. Machine for.....	S. J. Murray.....	381,716	Apr. 24	2127	557 558	43	450
Punching device. Check.....	R. Spencer.....	388,085	Aug. 21	1352	365	44	848
Punching machine. Bag.....	F. Hirsch.....	381,696	Apr. 24	2092	548	43	443
Punching machine. Check.....	J. N. Williams.....	385,741	July 10	613	159 160	44	127
Punching machine. Check.....	J. N. Williams.....	387,705	Aug. 14	771	197	44	727
Punching machines. Blank-holder for.....	R. J. Shipley.....	382,911	May 15	1528	400	43	825
Punching press feeding mechanism.....	F. H. Richards.....	378,805	Feb. 28	2178	579 580 581	42	943
Punching the eyes in axes, &c. Device for.....	A. Garrow.....	389,562	Sept. 18	1157	303	44	1306
Purifier.....	C. E. Henshaw.....	391,366	Oct. 16	1662	440	45	334
Purses, &c. Device for closing and carrying.....	E. N. Ames.....	380,416	Apr. 3	159	45	43	33
Push-button. Electric.....	A. J. Hoyt.....	394,925	Dec. 13	1865	482	45	1450
Puzzle.....	S. P. Chandler.....	393,816	Dec. 4	118	33	45	1095
Puzzle.....	L. E. Simpson.....	388,226	Aug. 21	1591	424	44	892
Pyromagnetic motor.....	T. A. Edison.....	380,100	Mar. 27	1855	493	42	1344
Pyrometer.....	E. Brown.....	393,962	Dec. 4	333	90	45	1136
Pyrometer.....	E. Brown.....	393,963	Dec. 4	334	90	45	1136
Pyrotechnic helmet.....	C. B. Rockwood.....	387,637	Aug. 14	700	180	44	714
Pyrotechnic signal.....	G. A. Mannie.....	385,562	July 3	348	90	44	70
Pyroxyline compounds. Manufacture of.....	J. R. France.....	393,751	Dec. 4	23	9	45	1077
Pyroxyline compounds. Manufacturing collars, cuffs, &c. from.....	J. R. France.....	393,750	Dec. 4	25	.....	45	1077
Pyroxyline. Manufacturing articles from compounds of.....	J. R. France.....	393,753	Dec. 4	31	.....	45	1078
Quartz. Mill for crushing or grinding.....	G. Frisbee.....	378,879	Mar. 6	33	9	42	973
Quiller.....	J. Nightingale.....	376,607	Jan. 17	1247	327	42	254
Quilt. Down.....	A. Fox.....	390,300	Oct. 2	137	39	45	31
Quilting-frame.....	J. Arbogast.....	378,914	Mar. 6	75	21	42	981
Quilting-frame.....	B. W. Raines.....	379,661	Mar. 20	1174	311	42	1203
Quilting-frame.....	C. A. Vestal.....	385,078	June 26	1867	477	43	1504
Quilting-machine.....	A. Beck.....	378,915	Mar. 6	76	22, 23	42	981
Quilting-machine.....	W. Koch.....	379,477	Mar. 13	890	239 240 241	42	1142
Quilting-machine.....	W. Koch.....	379,478	Mar. 13	895	241 242	42	1142
Quilting-machine.....	W. Koch.....	381,798	Apr. 24	2234	585	43	470
Quilting-machine.....	C. T. Landphere.....	384,264	June 12	636	171	43	1252
Quilting-machine.....	K. Zallud.....	376,621	Jan. 17	1282	337 338 339	42	260
Quilting-machine shuttle-carrier.....	W. Koch.....	379,480	Mar. 13	899	242 243	42	1143

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & E.	Vol.	Page.
Quilting-machine. Shuttle-driver for.....	A. Beck .....	376,280	Jan. 10	783	208	42	160
Quinia. Preparing hydrochlorate of.....	L. B. Weld .....	379,298	Mar. 13	635	.....	42	1092
Quinine. Solution of.....	L. B. Weld .....	379,300	Mar. 13	636	.....	42	1092
Quoin.....	G. E. Jones .....	377,618	Feb. 7	403	101	42	572
Quoin.....	G. E. Jones .....	377,619	Feb. 7	404	102	42	572
Quoin.....	G. E. Jones .....	377,620	Feb. 7	405	102	42	573
Rack:							
See Advertising-rack. Hay-rack.							
Book-rack. Horseshoeing-rack.							
Card-rack. Music-rack.							
Clothes-rack. Pencil-rack.							
Display-rack. Printer's drying-rack.							
Displaying-rack. Show-rack.							
Egg-rack. Ticket-rack.							
Feed-rack. Toilet-rack.							
Gun-rack. Tool-rack.							
Harness-rack. Towel-rack.							
Hat-rack. Wagon-rack.							
Hat and coat rack. Wood-rack.							
Rack.....	W. A. Seibert .....	389,326	Sept. 11	804	205	44	1233
Rack-elevator.....	W. R. Fitchit .....	379,693	Mar. 20	1324	325	42	1213
Rack for exhibiting garments.....	S. Wolerstein .....	389,628	Sept. 18	1257	{ 329 330 }	44	1324
Rack for exhibiting goods.....	A. Neville and A. Back .....	383,975	June 5	201	58, 59	43	1159
Rack for exhibiting hose or other goods.....	W. C. Bernardi .....	391,675	Oct. 23	2082	563	45	428
Radiation. Apparatus employed in systems of indirect.	A. Rasner .....	386,031	July 10	1022	272	44	209
Radiator.....	J. Bond .....	376,766	Jan. 24	1519	400	42	313
Radiator.....	J. Hopson, Jr. ....	378,093	Feb. 21	1120	293	42	734
Radiator.....	W. E. Prall .....	386,556	July 24	1814	479	44	378
Radiator.....	J. A. Prindle .....	392,932	Nov. 13	1106	286	45	815
Radiator.....	S. E. Rhodes .....	381,955	May 1	80	20	43	530
Radiator.....	C. H. Robinson .....	386,558	July 24	1818	480	44	379
Radiator-connection.....	G. A. Kiley .....	376,481	Jan. 17	1071	280	42	220
Radiator for steam or hot water.....	W. W. Canfield .....	381,984	May 1	138	33	43	540
Radiator. Heat.....	J. R. Tacey .....	395,013	Dec. 25	1998	515	45	1484
Radiator. Hot-water.....	A. Brake .....	375,864	Jan. 3	182	50	42	40
Radiator. Hot-water.....	C. S. West .....	385,394	July 3	80	23	44	17
Radiator. Hot-water and steam.....	C. W. Newton .....	385,679	July 3	517	{ 134 135 }	44	101
Radiator-loops. Machine for assembling.....	H. H. Taylor .....	380,536	Apr. 3	347	{ 99 100 }	43	71
Radiator-regulator.....	P. W. Britts .....	387,552	Aug. 7	536	139	44	676
Radiator. Steam.....	W. J. Baldwin .....	393,287	Nov. 20	1624	426	45	925
Radiator. Steam.....	T. C. Joy .....	390,128	Sept. 25	2018	538	44	1484
Radiator. Steam.....	S. E. Rhodes .....	381,954	May 1	78	20	43	529
Radiator. Steam or hot-water.....	A. Catchpole .....	379,047	Mar. 6	272	79	42	1017
Radiators. Foot-rest for.....	E. G. Cone .....	392,588	Nov. 13	610	153	45	718
Radiators. Reversible hood for heat.....	G. E. Dixon .....	393,747	Dec. 4	21	7	45	1076
Radiators. Vent-plug for steam.....	E. P. Waggoner .....	379,260	Mar. 13	573	159	42	1080
Radiators. Vent-plug for steam.....	E. P. Waggoner .....	386,670	July 24	1967	519	44	409
Raft. Log.....	H. R. Robertson .....	392,691	Nov. 13	757	192	45	746
Rafter-gage.....	J. N. Cruson .....	378,387	Feb. 21	1562	408	42	816
Rail and rail-chair for girder-rails.....	A. J. Moxham .....	391,553	Oct. 23	1923	518	45	396
Rail and rail-joint for street-railways.....	A. J. Moxham .....	391,549	Oct. 23	1919	{ 515 516 }	45	395
Rail-brace.....	T. A. Griffin .....	393,152	Nov. 20	1432	371	45	885
Rail-brace.....	F. C. Weir .....	377,220	Jan. 31	2168	572	42	446
Rail-brace from T-metal. Forming a.....	A. A. Strom .....	390,668	Apr. 3	545	149	43	110
Rail-chair.....	J. Quinn, Jr. ....	383,765	May 29	2822	743	43	1090
Rail-chair.....	I. Wolfe .....	378,856	Feb. 28	2267	603	42	960
Rail-chair for girder-rails.....	R. W. Welch .....	388,097	Aug. 21	1380	372	44	853
Rail-chair. Switch.....	A. A. Strom .....	394,309	Dec. 11	858	227	45	1245
Rail clamp. Guide.....	W. P. Wylly .....	392,940	Nov. 13	1117	290	45	818
Rail clamp. Guide.....	W. P. Wylly .....	392,941	Nov. 13	1120	291	45	818
Rail. Compound.....	E. G. Chamberlain .....	382,409	May 8	799	204	43	671
Rail. Detector.....	C. R. and H. Johnson .....	377,430	Feb. 7	128	27	42	519
Rail. Double-grooved girder.....	A. J. Moxham .....	383,002	May 15	1659	434	43	849
Rail fastening.....	G. H. Barge .....	388,241	Aug. 21	1611	431	44	697
Rail fastening.....	J. Quinn, Jr. ....	388,220	Aug. 21	1585	422	44	891
Rail fastening. Central.....	T. A. Davies .....	376,945	Jan. 24	1776	467	42	362
Rail for street-railways and chairs.....	I. H. Randall .....	382,385	May 8	768	195	43	665
Rail frog. Self-acting continuous.....	W. H. Sharrod .....	386,852	July 31	2266	596	44	472
Rail-frog. Spring.....	W. A. Chapman .....	385,594	July 3	395	101	44	77
Rail. Grooved girder.....	A. J. Moxham .....	383,001	May 15	1657	433	43	848
Rail. Guard.....	G. Nevens .....	380,587	Apr. 3	424	120	43	87
Rail-joint.....	P. Brown .....	386,452	July 24	1656	436	44	350
Rail-joint.....	H. F. Cox .....	378,575	Feb. 28	1846	487	42	881
Rail-joint.....	G. N. Hodgdon .....	385,116	June 26	1918	{ 489 490 }	43	1515
Rail-joint.....	J. V. Koss .....	382,815	May 15	1399	367	43	797
Rail-joint.....	B. H. Lightfoot .....	392,441	Nov. 6	392	96	45	668
Rail-joint.....	M. C. Niles .....	387,314	Aug. 7	173	46	44	604
Rail-joint.....	J. M. Price .....	392,569	Nov. 6	572	144	45	705
Rail-joint.....	G. H. Williams .....	376,402	Jan. 10	946	248	42	189
Rail-joint support.....	A. H. Ege .....	376,869	Jan. 24	1674	437	42	341
Rail-joint union.....	W. Lowe .....	394,867	Dec. 18	1759	456	45	1431
Rail-joints. Splice-bar for.....	T. S. Wilkin .....	394,629	Dec. 18	1355	354	45	1350
Rail-loading machine.....	C. P. Tittle .....	376,561	Jan. 17	1181	311	42	241
Rail or bar hender.....	M. H. Brown .....	383,168	May 22	1928	504	43	911
Rail-splice or fish-plate.....	H. F. Cox .....	378,543	Feb. 28	1797	475	42	871
Rail. Two-part girder.....	A. J. Moxham .....	391,552	Oct. 23	1922	517	45	396
Rails and rail-joints. Means for preventing the creeping of.....	J. J. Reilly .....	378,721	Feb. 28	2051	541	42	919
Rails. Apparatus for toughening steel.....	J. Coffin .....	378,083	Feb. 21	1107	290	42	731



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Rails, beams, or bars. Machine for bending	Z. P. Boyer	389,495	Sept. 11	1051	{ 279 280	44	1279
Rails. Brace-chair for girder	A. J. Moxham	394,078	Dec. 4	499	134	45	1167
Rails. Die for forging shifting	A. Walter	394,332	Dec. 11	737	195	45	1221
Rails into angle-bars. Rolls for converting old	A. Vaughan	388,382	Aug. 21	1849	491	44	940
Rails or bars. Toughening steel	J. Collin	390,206	Oct. 2	14	5	45	6
Rails. Rail-chair for girder	A. J. Moxham	394,079	Dec. 4	499	134	45	1167
Rails. Straightening slot	A. J. Moxham	385,818	July 10	723	789	44	149
Rails, switch-rails, or frogs. Fastening-block for guard	E. J. Moore and A. R. Paulus	385,472	July 3	207	54	44	41
Railing and guard. Metallic	A. Bataille	388,108	Aug. 21	1394	375	44	855
Railing. Guard	J. Muscr	380,657	Apr. 3	525	145	43	106
Railing. Tubular iron	E. Stephens	381,289	Apr. 17	1489	401	43	306
Railway	R. P. Faddis	390,014	Sept. 25	1841	488	44	1447
Railway	R. P. Faddis	391,131	Oct. 16	1339	357	45	272
Railway	R. M. Hunter	382,470	May 8	897	229	43	688
Railway	J. B. Sutherland	383,393	May 8	777	197	43	667
Railway	J. B. Sutherland	383,394	May 8	778	197	43	667
Railway-alarm	A. G. Inghram	390,081	Sept. 25	1954	519	44	1470
Railway and car. Elevated	J. L. Chapman	379,681	Mar. 20	1205	319	42	1209
Railway and conduit for electric wires, &c. Elevated	A. C. Oehrlé	379,904	Mar. 20	1565	{ 412 413	42	1278
Railway and conveyer. Pneumatic	T. A. and A. A. Connelly	381,907	May 1	16	4	43	518
Railway and other power-transmitting purposes. Cable-crossing device for	H. C. Grawe	393,228	Nov. 20	1532	401	45	907
Railway and water-tobogganing apparatus. Inclined	R. A. Harrington	384,843	June 19	1506	{ 391 392	43	1424
Railway and wire-conduit. Combined electric	E. E. Ries	386,087	July 10	1101	295	44	225
Railway apparatus. Cable	H. W. McNeill	390,690	Oct. 9	684	183	45	144
Railway automatic switch	M. Martin	390,877	Oct. 9	945	249	45	191
Railway-bedding	F. X. Georget	381,125	Apr. 17	1268	339	43	263
Railway-brake	F. A. Holleman	377,198	Jan. 31	2126	500	42	439
Railway-brake. Cable	E. Allen	393,601	Nov. 27	2096	549	45	1028
Railway-brakes. Device for applying pressure to	N. J. Pritchard and J. S. Templeton	377,775	Feb. 14	670	169	42	638
Railway-brakes. Valve for electro-pneumatic	J. E. Carpenter	378,658	Feb. 28	1962	521	42	903
Railway-bridge danger-signal	J. W. Steele	387,747	Aug. 14	834	215	44	738
Railway-bridge danger-signal	J. W. Steele	387,748	Aug. 14	835	215	44	738
Railway. Cable	P. F. Barr	386,178	July 17	1242	331	44	259
Railway. Cable	G. W. Douglas. (Reissue)	10,953	Aug. 28	2446	660	44	1063
Railway. Cable	J. Hartman, Jr.	389,887	Sept. 25	1663	440	44	1411
Railway. Cable	E. V. Johnson	379,648	Mar. 20	1154	305	42	1199
Railway. Cable	J. F. Just	379,169	Mar. 6	436	123	42	1049
Railway. Cable	J. H. Pendleton	387,907	Aug. 14	1067	{ 282 283	44	784
Railway. Cable	J. H. Pendleton	387,908	Aug. 14	1073	284	44	785
Railway. Cable	J. H. Pendleton	387,909	Aug. 14	1075	{ 284 285	44	785
Railway. Cable	J. H. Pendleton	387,910	Aug. 14	1078	{ 285 286	44	786
Railway. Cable	J. H. Pendleton	387,991	Aug. 14	1203	{ 326 327	44	811
Railway. Cable	J. H. Pendleton	387,994	Aug. 14	1210	328	44	813
Railway. Cable	J. H. Pendleton	387,995	Aug. 14	1211	329	44	813
Railway. Cable	W. S. Phelps	378,903	Mar. 6	61	18	42	978
Railway. Cable	E. C. Phillips	388,072	Aug. 21	1335	361	44	845
Railway. Cable	G. W. Shepherd	389,719	Sept. 18	1409	368	44	1353
Railway. Cable	A. A. Shobe and W. Embley	388,081	Aug. 21	1350	364	44	848
Railway. Cable	R. P. Walsh	390,104	Sept. 25	1985	{ 527 528	44	1477
Railway. Cable	R. P. Walsh	394,040	Dec. 4	447	120	45	1156
Railway. Cable	J. Wilde	393,530	Nov. 27	1993	520	45	1007
Railway. Cable	E. W. Wilson	384,550	June 12	1063	277	43	1330
Railway-cables. Driving-drum for	F. A. J. Beigel	385,230	June 26	2083	{ 533 534	43	1548
Railway carrying-pulley. Cable	G. P. Crehore	391,454	Oct. 23	1790	478	45	367
Railway-chair	S. Anthony	379,148	Mar. 6	412	117	42	1044
Railway-chair	A. Côté	387,399	Aug. 7	298	76	44	629
Railway-chair	G. V. Linendoll	386,144	July 17	1199	319	44	250
Railway-chairs. Die for making	E. B. Entwistle	381,875	Apr. 24	2369	616	43	495
Railway. Combined elevated and surface	T. J. Mayall	381,405	Apr. 17	1662	{ 444 445	43	341
Railway-conductor. Electrical	L. Daft	388,955	Sept. 4	222	59	44	1115
Railway conductors. Closed conduit for electric	C. J. Van Depoele	393,275	Nov. 20	1602	420	45	922
Railway conduits. Trap for electric	W. M. Schlesinger	381,585	Apr. 24	1933	{ 509 510	43	411
Railway construction. Street	R. T. White	375,850	Jan. 3	164	46	42	36
Railway construction. Street	R. T. White	375,852	Jan. 3	166	46	42	37
Railway construction. Street	R. T. White	375,853	Jan. 3	166	46	42	37
Railway construction. Street	R. T. White	375,854	Jan. 3	167	47	42	37
Railway construction. Street	R. T. White	375,855	Jan. 3	168	47	42	38
Railway cross-tie	P. Semenin	387,602	Aug. 7	623	162	44	692
Railway cross-tie	D. Y. Wilson	385,492	July 3	240	62	44	48
Railway cross-tie and fastening. Metallic	C. F. Yarbrough	395,304	Dec. 25	2447	629	45	1568
Railway cross-tie and sleeper	G. E. Blaine and E. Hill	380,274	Mar. 27	2085	558	42	1391
Railway-crossing	E. R. E. Cowell	386,056	July 10	1057	282	44	216
Railway-crossing	J. F. Crowell and F. C. Weir	378,827	Feb. 28	2218	590	42	951
Railway-crossing	J. Cumming	381,056	Apr. 10	1147	306	43	230
Railway-crossing	A. M. Grubbs	386,429	July 17	1617	434	44	333
Railway-crossing	J. T. Mabbey	382,173	May 1	432	{ 112 113	43	593
Railway-crossing	J. T. Mabbey	394,868	Dec. 18	1761	456	45	1431
Railway-crossing	B. B. Morgan	393,654	Nov. 27	2182	572	45	1045
Railway-crossing	W. H. and R. T. Shannon	376,756	Jan. 24	1489	393	42	308
Railway-crossing	R. H. St. John	388,929	Sept. 4	185	49	44	1108

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr't	Vol.	Page.
Railway-crossing alarm-signal	G. D. and C. Rathmann	384,390	June 12	827	215	43	1286
Railway crossing. Cable	E. S. Holden	376,153	Jan. 10	611	164	42	128
Railway-crossing gate	R. W. Hill	384,160	June 5	474	130	43	1213
Railway-crossing gate	M. B. Mills	380,447	Apr. 3	210	57	43	42
Railway-crossing gate	S. T. Street	380,228	Mar. 27	2027	542	42	1379
Railway-crossing signal	D. Grant	390,163	Sept. 25	2072	553	41	1494
Railway-crossing signal	J. W. Harkom	392,798	Nov. 13	924	237	45	779
Railway danger-signal	L. T. Mann	376,444	Jan. 17	1023	268	42	211
Railway device. Traction	J. H. Pendleton and C. Tiers	390,187	Sept. 25	2106	561	44	1501
Railway. Electric	E. M. Bentley	385,902	July 10	862	228	44	177
Railway. Electric	E. M. Bentley	380,278	Sept. 11	738	187	44	1220
Railway. Electric	E. M. Bentley	389,279	Sept. 11	741	188	44	1221
Railway. Electric	R. A. Chesebrough	386,184	July 17	1248	333	44	260
Railway. Electric	G. H. Conduct	384,562	June 12	1081	293	43	1334
Railway. Electric	G. H. Conduct	385,097	June 26	1890	433	43	1509
Railway. Electric	S. D. Field	381,685	June 19	1262	331	43	1377
Railway. Electric	S. D. Field	393,224	Nov. 20	1527	400	45	906
Railway. Electric	E. W. Heald	385,928	July 10	889	235	44	182
Railway. Electric	I. W. Heysinger	391,792	Oct. 30	2250	612	45	471
Railway. Electric	B. Heywood	392,863	Nov. 13	1016	260	45	799
Railway. Electric	W. W. Hopkins	379,069	Mar. 6	300	88, 89	42	1023
Railway. Electric	W. W. Hopkins	379,070	Mar. 6	302	89	42	1023
Railway. Electric	R. M. Hunter	377,107	Jan. 31	2016	528	42	415
Railway. Electric	R. M. Hunter	381,555	Apr. 24	1891	409	43	403
Railway. Electric	R. M. Hunter	381,556	Apr. 24	1894	409	43	403
Railway. Electric	R. M. Hunter	382,876	May 15	1479	388	43	814
Railway. Electric	R. M. Hunter	382,877	May 15	1482	388	43	815
Railway. Electric	R. M. Hunter	384,576	June 12	1099	289	43	1338
Railway. Electric	R. M. Hunter	384,908	June 19	1593	415	43	1439
Railway. Electric	R. M. Hunter	384,909	June 19	1594	415	43	1440
Railway. Electric	R. M. Hunter	384,910	June 19	1596	415	43	1440
Railway. Electric	R. M. Hunter	384,911	June 19	1598	415	43	1441
Railway. Electric	R. M. Hunter	384,912	June 19	1600	416	43	1441
Railway. Electric	R. M. Hunter	385,053	June 26	1827	469	43	1496
Railway. Electric	R. M. Hunter	385,054	June 26	1830	469	43	1496
Railway. Electric	R. M. Hunter	385,055	June 26	1832	469	43	1497
Railway. Electric	R. M. Hunter	385,180	June 26	2005	514	43	1532
Railway. Electric	R. M. Hunter	385,672	July 3	504	130	44	98
Railway. Electric	R. M. Hunter	392,675	Nov. 13	732	166	45	741
Railway. Electric	W. I. Ludlow	377,397	Feb. 7	45	13	42	504
Railway. Electric	C. T. Mason	378,259	Feb. 21	1383	362	42	781
Railway. Electric	E. E. Ries	386,085	July 10	1095	294	44	224
Railway. Electric	I. Robbins	392,971	Nov. 13	1166	303	45	827
Railway. Electric	F. M. Speed	380,060	Mar. 27	1795	420	42	1333
Railway. Electric	P. Wright	391,447	Oct. 23	1779	475	45	364
Railway. Electric surface	J. A. Enos	379,509	Mar. 13	944	254	42	1151
Railway. Electrical	O. Allen	392,772	Nov. 13	886	227	45	772
Railway. Electrical	J. C. Love	381,395	Apr. 17	1647	438	43	337
Railway. Electro-motive	G. T. Woods	385,034	June 26	1793	462	43	1489
Railway. Elevated	J. M. Hannahs	377,153	Jan. 31	2071	544	42	417
Railway. Elevated	J. M. Hannahs. (Reissue)	10,961	Oct. 2	613	163	45	124
Railway. Elevated	Z. H. Lowdermilk	393,771	Dec. 4	54	15	45	1093
Railway. Elevated	T. J. Mayall	381,403	Apr. 17	1658	443	43	340
Railway. Elevated	T. J. Mayall	384,921	June 19	1612	419	43	1444
Railway. Elevated	R. T. Oney	392,632	Nov. 13	675	169	45	730
Railway. Elevated	D. D. Read	379,181	Mar. 6	447	136	42	1051
Railway. Elevated	W. P. Wood	376,829	Jan. 24	1615	423	42	331
Railway. Elevated cable	H. Paige	395,073	Dec. 25	2082	538	45	1502
Railway. Elevated suspension	R. C. Forsyth	386,120	July 17	1160	308	44	241
Railway fish-joint	L. Aman	387,031	July 31	2522	663	44	522
Railway-freight-train signal	T. M. Jenks	383,813	May 29	2906	767	43	1105
Railway-frog	H. C. Brice and W. C. Smith	394,754	Dec. 18	1557	407	45	1392
Railway-frog	H. Elliot	379,154	Mar. 6	418	118	42	1045
Railway-frog	T. A. Griffin	384,617	June 19	1163	307	43	1358
Railway-frog	O. F. Jordan	395,149	Dec. 25	2213	568	45	1525
Railway-frog	C. G. Lea	394,379	Dec. 11	964	253	45	1266
Railway-frog	G. W. Parsons	385,066	June 26	1848	473	43	1499
Railway-frog	L. A. Perry	380,923	Apr. 10	935	249	43	191
Railway-frog	W. N. Thompson	391,990	Oct. 30	2549	690	45	531
Railway-frog. Spring	J. T. Richardson	390,399	Oct. 2	287	76	45	61
Railway-frogs. Filling-piece for	T. A. Griffin	380,031	Mar. 27	1756	470	42	1325
Railway-gate	J. Bolt	378,761	Feb. 28	2103	555	42	929
Railway-gate	J. H. Candee	391,019	Oct. 16	1182	314	45	213
Railway-gate	L. M. Foster	380,319	Apr. 3	17	4, 5	43	6
Railway-gate	A. H. Johnson and A. G. Mahaffy	381,381	Apr. 17	1627	444	43	331
Railway-gate	A. J. McDonald	383,969	June 5	191	56	43	1157
Railway-gate	W. Ridling	390,618	Oct. 2	579	154	45	117
Railway-gate. Automatic	W. S. Whiting	392,769	Nov. 13	879	224	45	771
Railway-gate tie	A. J. McDonald	383,967	June 5	189	55	43	1156
Railway grading and excavating machine	M. E. Pugh	379,723	Mar. 20	1266	338	42	1222
Railway grip and crossing. Cable	J. J. Graff	387,782	Aug. 14	878	226	41	747
Railway grip and crossing device. Cable	J. J. Graff	394,356	Dec. 11	930	244	45	1259

## Alphabetical list of inventions—Continued.

Invention.	Name	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Railway grip. Cable.....	G. P. Cater.....	386,747	July 24	2057	542	44	425
Railway grip. Cable.....	S. Gibson.....	382,970	May 15	1609	421	43	840
Railway grip. Cable.....	D. S. Mackey.....	377,527	Feb. 7	272	69	42	547
Railway grip. Cable.....	J. H. Robertson.....	377,399	Feb. 7	229	55, 56	42	539
Railway grip. Cable.....	A. E. Roe.....	381,032	Apr. 10	1107	295 296	43	223
Railway gripping apparatus. Cable.....	E. C. Buck.....	391,878	Oct. 30	2385	647	45	499
Railway-guard.....	J. V. Reams.....	389,245	Sept. 11	690	176	44	1212
Railway-head evener.....	J. Sheridan.....	381,284	Apr. 17	1484	399 400	43	305
Railway-heads. Evener for.....	C. A. Upton.....	387,701	Aug. 14	766	195	44	726
Railway-heads. Evening mechanism for.....	C. E. Wilkins.....	392,172	Oct. 30	2837	769 770	45	586
Railway-joint.....	W. A. Moses.....	393,481	Nov. 27	1918	502	45	990
Railway metal tie.....	H. Shultzen.....	386,357	July 17	1500	398	44	306
Railway or farm gate.....	N. Wright and S. R. Shaver.....	382,692	May 1	213	56, 57 275 276 277 278	43	552
Railway-passenger mileage-register.....	O. E. Michaud.....	387,898	Aug. 14	1059	276 277 278	44	781
Railway-passenger mileage-register.....	O. E. Michaud.....	390,246	Oct. 2	74	21	45	18
Railway, power, and lifting appliance. Electric.....	J. W. Heysinger.....	385,413	July 3	113	32, 33	44	24
Railway. Pneumatic.....	T. W. Pitts.....	3-4,333	June 12	744	195	43	1270
Railway-rail.....	D. T. Bennett.....	3-3,431	May 29	2322	616	43	990
Railway-rail.....	F. Euphrat.....	385,701	July 10	552	144	44	115
Railway-rail.....	G. A. Ewing.....	388,188	Aug. 21	1543	410	44	882
Railway-rail bender and straightener.....	E. M. Woodin and F. J. Gibbs.....	377,184	Jan. 31	2108	556	42	435
Railway-rail chair and tie. Combined.....	N. M. Marks.....	376,250	Jan. 10	746	198	42	153
Railway-rail crossing.....	J. Rice.....	381,717	June 19	1315	344	43	1387
Railway-rail fastener.....	C. Netter.....	391,912	Oct. 30	2436	658	45	509
Railway-rail fastening.....	D. M. McRae.....	393,515	Nov. 27	1971	514	45	1002
Railway-rail joint.....	M. T. Frame.....	3-4,249	June 12	617	166	43	1249
Railway-rail joint.....	G. F. Gage.....	394,761	Dec. 18	1564	409	45	1394
Railway-rail joint.....	J. J. Harrell.....	389,465	Sept. 11	1008	270	44	1272
Railway-rail joint.....	J. McKenzie.....	390,881	Oct. 9	950	250	45	192
Railway-rail joint.....	J. J. Mulhall.....	384,061	June 5	328	93	43	1183
Railway-rail joint or chair.....	J. M. and S. B. Moody.....	388,063	Aug. 21	1318	357	44	842
Railway-rail pad.....	H. J. Packenthall and L. Wallace.....	382,803	May 15	1387	364	43	795
Railway-rail-sawing machine.....	C. G. McLeod.....	393,916	Dec. 4	971	74	45	1123
Railway rail. Street.....	R. T. White.....	395,302	Dec. 25	2446	629	45	1567
Railway rail-tie and rail-clamp.....	J. F. Hudce.....	379,232	Mar. 13	525	147	42	1071
Railway-rails, building-blocks, paving-blocks, &c. Material for.....	H. F. Ferris.....	386,064	July 10	1068	.....	44	218
Railway-rails. Cushion-plate for.....	T. A. Davies.....	394,679	Dec. 18	1441	375	45	1367
Railway-rails. Device for securing wire to.....	F. Stitzer and C. Weinedel.....	385,484	July 3	228	59	44	45
Railway-rails. Machine for reducing.....	S. McCloud.....	386,504	Apr. 3	295	86	43	60
Railway-rails. Machine for sawing and drilling.....	E. N. Higley.....	389,149	Sept. 4	532	134	44	1170
Railway-rails. Manufacture of.....	T. A. Meyenburg and G. Westenholtm.....	387,797	Aug. 14	897	232	44	751
Railway-rails. Safety-flange for.....	C. M. Erwin.....	384,435	June 12	886	231	43	1298
Railway-rails to their ties. Device for fastening.....	H. D. Cone.....	377,191	Jan. 31	2116	559	42	437
Railway safety-gate.....	J. H. Morse.....	393,442	Nov. 27	1845	486	45	977
Railway. Sectional double-line electric.....	S. H. Short.....	394,139	Dec. 4	590	158	45	1184
Railway semaphore-signal.....	T. L. Chapman.....	381,333	Apr. 17	1550	418	43	318
Railway semaphore-signal.....	C. H. Koyl.....	384,170	June 5	488	134	43	1216
Railway-semaphores. Mechanism for operating.....	R. Thompson.....	391,989	Oct. 30	2547	689	45	530
Railway-signal.....	A. W. Bennett and J. M. Millen.....	380,165	Mar. 27	1940	517 518	42	1361
Railway-signal.....	A. B. Blackburn.....	376,362	Jan. 10	898	225	42	181
Railway-signal.....	T. P. Curry.....	388,023	Aug. 21	1254	341	44	830
Railway-signal.....	N. T. DeGolyer.....	394,466	Dec. 11	1082	281	45	1286
Railway-signal.....	C. F. De Redon.....	385,920	July 10	880	233	44	180
Railway-signal.....	J. H. Farrar.....	380,316	Apr. 3	14	3	43	5
Railway-signal.....	R. F. Hageman.....	377,892	Feb. 14	834	213 214	42	669
Railway-signal.....	T. M. Jenks.....	381,247	Apr. 17	1436	386	43	294
Railway-signal.....	T. C. Lewis.....	378,451	Feb. 28	1670	438	42	844
Railway-signal.....	T. C. Lewis.....	393,017	Nov. 20	1241	322	45	849
Railway-signal.....	M. W. Long.....	392,444	Nov. 6	400	99	45	669
Railway-signal.....	A. F. Martel.....	385,677	July 3	512	133	44	100
Railway-signal.....	T. S. Nicholson.....	377,634	Feb. 7	424	108	42	576
Railway-signal.....	J. T. Phillips.....	377,908	Feb. 14	859	221	42	674
Railway-signal.....	E. R. Roswell and G. H. Conger.....	391,919	Oct. 30	2444	661	45	510
Railway-signal.....	C. Selden and G. R. Ott.....	395,181	Dec. 25	2367	581	45	1534
Railway-signal.....	E. A. Sharp.....	385,963	July 10	929	246	44	190
Railway-signal.....	W. B. Sherman.....	381,086	Apr. 10	1202	322	43	242
Railway-signal.....	C. D. Tisdale.....	382,741	May 15	1302	342	43	778
Railway-signal.....	G. H. Wright.....	386,049	July 10	1045	279 280	44	214
Railway-signal. Automatic.....	A. J. Ross and J. D. Darter.....	391,388	Oct. 16	1696	449	45	340
Railway-signal. Automatic.....	A. B. Snyder.....	389,258	Sept. 11	704	179	44	1214
Railway signal-carrier and torpedo-placer. Automatic.....	H. O. King and F. Hammond.....	387,520	Aug. 7	475	125	44	665
Railway-signal-circuit breaker.....	E. B. Ives.....	386,541	July 24	1793	474	44	375
Railway-signal. Detonating.....	J. Fox.....	3-7,506	Aug. 7	457	120	44	662
Railway-signal. Electric.....	S. C. C. Currie.....	384,962	June 26	1669	434	43	1463
Railway-signal. Electric.....	C. F. De Redon.....	382,515	May 8	964	243	43	702
Railway-signal. Electric.....	B. H. Gedge.....	3-2,299	May 8	632	161	43	640
Railway-signals. Device for actuating.....	J. J. Turner.....	382,284	May 1	600	152	43	623
Railway-signals. Track-instrument for.....	J. B. Sutherland.....	390,993	Oct. 9	1126	297 298	45	225
Railway signaling.....	T. A. Edison and E. T. Gilliland.....	384,830	June 19	1484	387	43	1419
Railway signaling device.....	T. P. Rodgers.....	378,850	Feb. 28	2357	601	42	958
Railway signaling system.....	E. L. Orcutt.....	387,316	Aug. 7	176	46, 47	44	605

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Railway signaling system. Electric	J. Irwin	389,236	Sept. 11	654	{ 167 168	{ 44	1203
Railway-sleepers. Finishing-rolls for the manufacture of iron	A. Märklin	377,948	Feb. 14	924	239	42	688
Railway snow-plow and car combined.	J. Wooley	376,698	Jan. 17	1402	369	42	282
Railway-spike	C. Baines	384,229	June 12	584	159	43	1243
Railway-spike	T. A. Davies	394,678	Dec. 18	1440	375	45	1366
Railway-spike	J. S. Fox	385,107	June 26	1906	485	43	1512
Railway-spike	H. Greer	387,067	July 31	2576	678	44	532
Railway-spike	H. Greer	387,068	July 31	2577	678	44	533
Railway-spike. Blank for	J. T. Jones	386,404	July 17	1583	416	44	327
Railway-spikes. Manufacture of	J. T. Jones	386,406	July 17	1585	417	44	327
Railway-station indicator. Electric	G. Guntz	378,440	Feb. 28	1655	{ 434 435	{ 42	841
Railway station-indicator. Electric	G. H. Kirwan	388,690	Aug. 28	2277	{ 611 612	{ 44	1030
Railway-station signal	C. J. Woodward	385,742	July 10	615	160	44	127
Railway. Street	R. M. Hunter	380,575	Apr. 3	407	116	43	83
Railway structure	F. K. Hain	376,951	Jan. 24	1783	{ 468 469	{ 42	363
Railway structure. Elevated	B. F. Hamilton	376,986	Jan. 24	1828	481	42	371
Railway structures. Elevated cable-motor or other.	Z. P. Boyer	382,407	May 8	795	{ 202 203	{ 43	670
Railway. Suspended cable and electric.	G. R. Taylor and W. Heckert	381,862	Apr. 24	2350	609	43	491
Railway-switch	W. S. Arnold	380,972	Apr. 10	1917	266	43	206
Railway-switch	A. J. Atkinson	376,465	Jan. 17	1050	275	42	216
Railway-switch	H. D. Baldwin	382,066	May 1	283	75	43	566
Railway-switch	L. Blackstone	384,955	June 26	1661	432	43	1462
Railway-switch	I. M. Brown	380,086	Mar. 27	1836	499	42	1341
Railway-sweeper	G. P. Campbell	391,509	Oct. 23	1860	{ 498 499	{ 45	382
Railway-switch	C. R. Davis, J. F. Essler, and P. De Long	388,842	Sept. 4	48	13, 14	44	1081
Railway-switch	P. De Long	394,681	Dec. 18	1443	376	45	1367
Railway-switch	B. J. Downing	377,889	Feb. 14	831	213	42	668
Railway-switch	H. C. Geatty	376,772	Jan. 24	1526	{ 401 402	{ 42	315
Railway-switch	E. Gordon	377,713	Feb. 7	544	139	42	597
Railway-switch	R. H. Isbell	379,072	Mar. 6	305	90	42	1023
Railway-switch	J. A. Kirby	393,765	Dec. 4	41	13	45	1081
Railway-switch	H. Lesly	395,066	Dec. 25	2069	535	45	1500
Railway-switch	L. J. Lindsey	380,582	Apr. 3	417	118	43	85
Railway-switch	M. McCann	376,006	Jan. 3	389	103	42	78
Railway-switch	J. S. Meyers	389,315	Sept. 11	790	{ 201 202	{ 44	1230
Railway-switch	J. J. Peetz	378,213	Feb. 21	1299	344	42	767
Railway-switch	G. N. Reiff	389,716	Sept. 18	1403	367	44	1352
Railway-switch	S. B. Sabens	385,141	June 26	1956	{ 500 501	{ 43	1522
Railway-switch	W. Spielman	391,986	Oct. 30	2543	688	45	530
Railway-switch	H. K. Whitner	390,734	Oct. 9	746	{ 195 196	{ 45	155
Railway-switch	H. K. Whitner	394,744	Dec. 18	1544	403	45	1399
Railway-switch and switch mechanism	A. K. Mansfield	391,168	Oct. 16	1392	371	45	282
Railway-switch. Automatic	F. N. Kelsey and W. A. Stevenson	377,941	Feb. 14	911	235	42	685
Railway-switch. Automatic	H. A. Sage	393,666	Nov. 27	2197	{ 576 577	{ 45	1048
Railway-switch. Automatic	W. H. Stowell	378,809	Feb. 28	2183	582	42	945
Railway-switch. Automatic	G. W. Voorhees	390,999	Oct. 9	1133	300	45	227
Railway switch-frog. Street	J. Hope, Jr.	376,479	Jan. 17	1067	279	42	220
Railway-switch lock	W. T. Manning	379,709	Mar. 20	1246	{ 331 332	{ 42	1218
Railway-switch lock	W. T. Manning	383,965	June 5	187	55	43	1156
Railway-switch pivotal tie-rods. Clip for	A. A. Strom	394,943	Dec. 18	1885	487	45	1454
Railway-switch. Portable	F. G. Johnson	393,965	Dec. 4	369	100	45	1142
Railway-switch stand	A. A. Strom	394,415	Dec. 11	1010	265	45	1274
Railway-switch stand and signal	N. W. Boyd	383,209	May 22	1986	521	43	923
Railway-switch-stand lock	F. S. Mitchell	379,122	Mar. 6	380	108	42	1037
Railway switch. Street	J. Shank	390,261	Oct. 2	89	25	45	21
Railway switch. Suspended	V. Hoerschelmann	390,690	Oct. 2	558	148	45	113
Railway switches and signals. Interlocking device for	A. H. Johnson	392,734	Nov. 13	823	200	45	760
Railway-switches. Device for opening and closing	W. McCloskey	390,181	Sept. 25	2098	559	44	1499
Railway-switches. Locking mechanism for	C. H. Johnson and C. Allen	382,530	May 8	988	249	43	706
Railway-switches. Mechanism for operating	J. M. Swen	390,716	Oct. 9	721	190	45	151
Railway system	E. M. Boynton	394,055	Dec. 4	472	126	45	1162
Railway system	T. J. Mayall	384,034	June 5	317	90, 91	43	1181
Railway system. Cable	S. A. Bemis and L. Pfingst	388,812	Sept. 4	6	2, 3	44	1074
Railway system. Electric	E. M. Bentley	385,787	July 10	680	178	44	141
Railway system. Electric	J. D. Nicholson, W. J. McElroy, and T. J. McTigue	389,822	Sept. 18	1543	408	44	1381
Railway system. Electric	D. G. Weems	376,567	Jan. 17	1185	{ 313 314	{ 42	242
Railway system. Electric	D. G. Weems	387,382	Aug. 7	276	70, 71	44	625
Railway system. Electric	D. G. Weems	387,383	Aug. 7	277	71	44	625
Railway system. Electric	D. G. Weems	391,394	Oct. 16	1703	{ 451 452 453	{ 45	342
Railway system. Electric	D. G. Weems	393,280	Nov. 20	1615	{ 423 424 178	{ 45	924
Railway system. Elevated street	J. W. Adams	382,347	May 8	707	{ 179 180	{ 43	653
Railway system. Pneumatic	T. J. Mayall	381,401	Apr. 17	1655	{ 441 442	{ 43	339

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's.	Vol.	Page.
Railway T-rails. Joint for.....	I. C. Albaugh and J. C. Gillespie.....	386,679	July 24	1979	522	44	411
Railway-tie.....	A. H. Ames.....	391,999	Oct. 30	2562	695	45	532
Railway-tie.....	W. H. Britton.....	382,134	May 1	379	99	43	583
Railway-tie.....	A. Durand.....	386,389	July 17	1545	409	44	315
Railway-tie.....	J. M. Giberson.....	378,133	Feb. 21	1190	311	42	746
Railway-tie.....	L. Haas.....	389,464	Sept. 11	1067	270	44	1271
Railway-tie.....	L. Haas.....	391,704	Oct. 23	2127	574	45	437
Railway-tie.....	M. Hagarty.....	395,134	Dec. 25	2185	563	45	1520
Railway-tie.....	W. P. Hall.....	375,996	Jan. 3	368	99	42	75
Railway-tie.....	C. P. Hawley.....	379,574	Mar. 20	1049	279	42	1179
Railway-tie.....	W. B. Henning.....	376,884	Jan. 24	1696	443	42	346
Railway-tie.....	I. G. Howell.....	390,370	Oct. 2	242	65	45	51
Railway-tie.....	J. Jacobs.....	379,399	Mar. 13	775	299	42	1119
Railway-tie.....	G. Kelton.....	377,162	Jan. 31	2079	547	42	429
Railway-tie.....	J. W. Smith.....	376,214	Jan. 10	696	185	42	143
Railway-tie.....	C. G. Singer.....	379,612	Mar. 20	1104	293	42	1189
Railway-tie and chair. Metallic.....	T. B. Moore.....	375,763	Jan. 3	57	17	42	15
Railway tie and fastening.....	J. A. Ogden.....	386,156	July 17	1212	323	44	253
Railway-tie and fastening for rails. Metallic.....	H. L. De Zeng.....	380,623	Apr. 3	474	134	43	96
Railway-tie and fastening therefor. Metallic.....	F. L. Barrows.....	372,280	Feb. 21	1417	370	42	787
Railway tie and joint.....	J. Hill.....	378,930	Mar. 6	100	29	42	986
Railway tie and rail fastening.....	J. R. Millhouse.....	388,296	Aug. 21	1705	455	44	916
Railway-tie. Combined wood and metal.....	C. P. Hawley.....	379,575	Mar. 20	1051	279	42	1179
Railway-tie. Metal.....	H. Shultzen.....	386,356	July 17	1498	397	44	306
Railway-tie. Metallic.....	F. Barhydt.....	382,855	May 15	1448	381	43	808
Railway-tie. Metallic.....	W. H. Donaldson.....	381,059	Apr. 10	1151	307	43	231
Railway-tie. Metallic.....	R. W. Flower, Jr., and S. L. Wiegand.....	386,119	July 17	1159	308	44	241
Railway-tie. Metallic.....	A. J. Hartford.....	388,277	Aug. 21	1678	449	44	911
Railway-tie. Metallic.....	C. P. Hawley.....	379,576	Mar. 20	1052	279	42	1179
Railway-tie. Metallic.....	S. B. Jerome.....	379,312	Mar. 13	651	177	42	1095
Railway-tie. Metallic.....	J. Reese.....	384,785	June 19	1406	368	43	1406
Railway-tie. Metallic.....	W. J. Stifter.....	391,492	Oct. 23	1842	492	45	378
Railway-tie. Metallic.....	G. W. Thompson.....	394,738	Dec. 18	1535	402	45	1388
Railway-ties. Manufacture of tubular.....	D. Wilson.....	391,426	Dec. 11	1026	269	45	1276
Railway time-signal.....	C. Barry.....	386,052	July 10	1050	281	44	214
Railway time-signal.....	J. F. K. O'Connor.....	377,497	Feb. 7	225	54	42	539
Railway-track.....	G. C. Baker.....	376,132	Jan. 10	580	155	42	122
Railway-track.....	J. Haish.....	384,620	June 19	1166	308	43	1359
Railway-track.....	J. M. Hardy.....	381,130	Apr. 17	1273	341	43	265
Railway-track and joint.....	B. S. Doran.....	385,253	June 26	2126	542	43	1557
Railway-track. Cable-traction.....	W. H. Young.....	379,922	Mar. 20	1566	418	42	1282
Railway-track-cleaner. Street.....	C. E. Doty.....	388,403	Aug. 28	1874	501	44	952
Railway-track cleaner or snow-plow.....	L. J. Bergendahl.....	379,441	Mar. 13	835	225	42	1131
Railway-track gate.....	W. R. Jacobs and S. C. Houston.....	395,056	Dec. 25	2058	530	45	1497
Railway-track. Laying.....	G. F. Harris.....	381,366	Apr. 17	1606	429	43	329
Railway-track. Machinery for laying.....	D. S. Moore.....	379,178	Mar. 6	444	125	42	1051
Railway-track rails. Expansion-joint for.....	A. J. Moxham.....	395,248	Dec. 25	2374	608	45	1553
Railway-track-scraper.....	H. M. Littlell.....	376,668	Jan. 17	1355	356	42	273
Railway-tracks. Apparatus for removing ice from.....	E. E. Ries.....	390,619	Oct. 2	580	154	45	117
Railway-tracks. Cattle-guard for.....	R. H. Elliott.....	387,218	Aug. 7	31	7	44	578
Railway-tracks. Ice and snow-plow for.....	E. Leslie.....	380,042	Mar. 27	1770	474	42	1327
Railway-tracks. Machine for laying.....	M. Smith.....	386,613	July 24	1881	458	44	394
Railway-tracks. Steel-tie for.....	M. Fitzgerald.....	383,118	May 22	1865	487	43	899
Railway traction-cable.....	P. J. Franzsoe.....	377,023	Jan. 31	1888	497	42	391
Railway. Traction-cable.....	J. P. Hunt.....	387,592	Aug. 7	606	157	44	688
Railway traction device.....	D. D. Hardy.....	386,779	July 24	2121	557	44	437
Railway-train indicator.....	R. E. Waters.....	391,568	Oct. 23	1937	522	45	399
Railway-trains. Apparatus for preventing collisions of.....	J. W. James.....	386,403	July 17	1581	416	44	326
Railway-trains. Combined station indicator and signaling apparatus for.....	J. H. Bickford.....	381,669	Apr. 24	2054	537	43	435
Railway-trains. Device for coupling the steam-pipes of.....	D. H. Sherman.....	391,089	Oct. 16	1284	343	45	263
Railway-trains. Dust-fender for.....	E. Redmond.....	389,246	Sept. 11	692	176	44	1212
Railway-trains. Pipe-coupling for.....	N. Curtis.....	376,075	Jan. 10	491	132	42	105
Railway transfer mechanism. Cable.....	T. A. Ibach.....	395,276	Dec. 25	2415	618	45	1561
Railway trolley. Electric.....	J. L. Blackwell.....	389,282	Sept. 11	745	189	44	1222
Railway. Tube-motor street.....	W. G. Creighton.....	376,429	Jan. 17	999	261	42	209
Railway turn-table.....	A. J. Moxham.....	391,551	Oct. 23	1921	517	45	395
Railway water-tank.....	J. Skinner and R. W. Jackson.....	392,371	Nov. 6	287	73	45	649
Railway-wheel.....	W. H. Kitson.....	375,879	Jan. 3	203	56	42	43
Railways at switches. Operating cable.....	L. M. Clement and G. C. Watriss.....	379,306	Mar. 13	614	175	42	1093
Railways. Automatic block-signal system for.....	F. S. Guerber.....	378,306	Feb. 21	1450	378	42	793
Railways. Automatic switch and frog for.....	L. W. Cromer and G. Gavin.....	381,676	Apr. 24	2066	540	43	438
Railways. Automatic switch for.....	J. M. Swem.....	384,651	June 19	1209	319	43	1367
Railways. Automatic switch for street.....	T. W. Rounds.....	394,939	Dec. 18	1880	466	45	1453
Railways. Cable-grip for.....	B. R. Singleton and C. D. Hoffman.....	391,202	Oct. 16	1436	364	45	292
Railways. Cable-grip for traction.....	O. H. Jadwin.....	388,686	Aug. 28	2274	610	44	1029
Railways. Cable-gripping apparatus for street.....	J. H. Dale.....	385,246	June 26	2106	539	43	1553
Railways. Cable-supporting sheaf for cable.....	O. C. Crane.....	383,708	May 29	2727	719	43	1073
Railways. Combined metal tie and fastening for.....	E. R. Stiles.....	381,860	Apr. 21	2347	609	43	490
Railways. Combined sleeper and chair for street.....	R. T. White.....	375,856	Jan. 3	169	47	42	38
Railways. Compound electromotor for electric.....	A. J. Jarman.....	386,543	July 24	1798	474	44	375
Railways. Conduit for electric.....	H. A. Chase.....	392,664	Nov. 13	720	182	45	738
Railways. Conduit for electric.....	M. Dallas.....	393,622	Nov. 27	2134	558	45	1035
Railways. Conduit for electric.....	S. D. Field.....	380,103	Mar. 27	1860	494	42	1346
Railways. Conduit for electric or cable.....	T. W. Harris.....	394,648	Dec. 18	1385	362	45	1356

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Railways. Constructing.....	C. H. Horne.....	387,560	Aug. 7	553	{ 143 144 145 }	44	679
Railways. Construction of.....	E. H. Ashcroft.....	388,240	Aug. 21	1610	{ 430 431 }	44	897
Railways. Construction of street.....	F. W. Wood and J. Fowler.....	386,732	July 24	2049	540	44	423
Railways. Contact device for electric.....	R. T. White.....	375,851	Jan. 3	165	46	42	37
Railways. Contact-making device for electric.....	J. L. Blackwell.....	389,251	Sept. 11	744	189	44	1221
Railways. Current-collector for electric.....	F. Wynne.....	381,048	Apr. 10	1132	303	43	228
Railways. Current-collector for electric.....	J. L. Blackwell.....	388,247	Aug. 21	1628	436	44	900
Railways. Current-collector for series electric.....	J. L. Blackwell.....	389,189	Sept. 11	596	152	44	1192
Railways. Depression-pulley for cable.....	S. H. Short.....	385,379	July 3	58	17	44	13
Railways. Device for removing obstructions or preventing accidents on street.....	G. W. Douglas.....	377,743	Feb. 14	590	152	42	621
Railways. Driving mechanism for endless-cable.....	C. Mahon.....	381,881	Apr. 24	2377	618	43	497
Railways. Driving mechanism for endless-cable.....	J. Walker.....	387,835	Aug. 14	958	{ 248 249 }	44	764
Railways. Drum for cable.....	J. Walker.....	387,024	July 31	2513	{ 660 661 }	44	520
Railways. Electric motor for.....	S. H. Short.....	391,650	Apr. 24	2025	531	43	430
Railways. Electric signal for.....	E. A. Sharp.....	385,964	July 10	929	246	44	190
Railways. Foot-guard for.....	T. A. Griffin.....	382,083	May 1	315	82	43	571
Railways. Grip for cable.....	C. Scholz.....	394,512	Dec. 11	1146	298	45	1298
Railways. Grip for cable street.....	L. M. Clement and G. C. Watriss.....	391,511	Oct. 23	1263	499	45	363
Railways. Grip-gear for cable street.....	J. Helm.....	385,930	July 10	893	237	44	183
Railways. Grip-gear for cable street.....	J. Helm.....	394,855	Dec. 18	1742	{ 451 452 }	45	1427
Railways. Gripper for cable.....	A. A. Shobe and W. Embley.....	379,993	Mar. 27	1695	452	42	1314
Railways. Gripping device for cable.....	J. H. Pendleton.....	387,962	Aug. 14	1206	327	44	812
Railways. Gripping device for cable.....	J. H. Pendleton.....	387,993	Aug. 14	1207	328	44	812
Railways. Gripping device for cable.....	J. H. Pendleton.....	387,966	Aug. 14	1212	329	44	813
Railways. Gripping device for cable.....	J. H. Pendleton.....	387,997	Aug. 14	1215	330	44	814
Railways. Gripping device for cable.....	A. A. Shobe and W. Embley.....	379,994	Mar. 27	1696	{ 452 453 }	42	1314
Railways. Gripping mechanism for cable.....	J. Walsh, Jr.....	385,989	July 10	955	253	44	195
Railways. Guard-rail and insulator for electric.....	H. A. Foster.....	384,901	June 19	1585	412	43	1438
Railways. &c. Lifting-machine for.....	F. J. K., and F. Golightly, Jr.....	391,141	Oct. 16	1354	361	45	275
Railways. Means for picking up and dropping cables in cable.....	J. H. Pendleton.....	387,998	Aug. 14	1217	{ 330 331 }	44	815
Railways. Metallic connector for electric.....	J. Kames.....	393,012	Nov. 20	1234	320	45	847
Railways. Metallic tie or sleeper for.....	R. T. White.....	385,395	July 3	81	23	44	18
Railways. Metallic tie or sleeper for.....	R. T. White.....	386,420	July 17	1607	422	44	331
Railways. Motor for street.....	B. C. Pole.....	381,847	Apr. 24	2327	{ 604 605 }	43	487
Railways. Movable-tongue switch for street.....	A. J. Moxham.....	388,994	Sept. 4	269	71	44	1124
Railways. Overhead conducting system for electric.....	G. T. Woods.....	383,844	May 29	2950	780	43	1113
Railways. Overhead conductor for electric.....	E. E. Ries.....	392,757	Nov. 13	854	219	45	766
Railways. Overhead wire-connection for electric.....	W. H. Knight.....	386,784	July 24	2130	560	44	438
Railways. &c. Permanent way for.....	J. Cabry and W. H. Kinch.....	392,849	Nov. 13	998	256	45	794
Railways. Portable passing-switch for.....	A. J. Moxham.....	395,249	Dec. 25	2375	608	45	1553
Railways. Rail-connection for electric.....	E. L. Orcutt.....	378,517	Feb. 28	1756	464	42	863
Railways. Rail for street.....	H. H. Littell.....	390,979	Oct. 9	1107	292	45	222
Railways. Safety-catch for cable.....	C. Vogel.....	383,159	May 22	1916	501	43	909
Railways. Signaling apparatus for cable street.....	H. W. Smith.....	388,459	Aug. 28	1949	522	44	968
Railways. Slot-switch for electrical and cable.....	S. H. Short.....	379,062	Mar. 6	320	93	42	1026
Railways. Spring-jack for electric.....	S. H. Short.....	379,081	Mar. 6	319	92	42	1026
Railways. Street or station indicator for.....	A. E. Cucuel.....	394,677	Dec. 18	1438	375	45	1366
Railways. Switch for street.....	C. F. Spencer.....	382,275	May 1	581	147	43	620
Railways. Switch-joint chair for.....	C. F. Street.....	391,565	Oct. 23	1934	{ 521 522 }	45	399
Railways. Switch on overhead lines in electric.....	E. M. Bentley.....	385,993	July 10	864	238	44	177
Railways. Three-throw switch for.....	F. S. Washburn.....	383,382	May 22	2230	592	43	967
Railways. Track for street.....	R. T. White.....	375,849	Jan. 3	163	45	42	36
Railways. Track-scraper for street.....	G. W. Davis.....	378,292	Feb. 21	1436	374	42	790
Railways. Traction-cable for.....	J. H. Pendleton.....	387,913	Aug. 14	1085	287	44	788
Railways. Traction device for cable.....	J. H. Pendleton.....	387,989	Aug. 14	1199	325	44	810
Railways. Traction-increasing system for electric.....	E. E. Ries.....	379,909	Mar. 20	1570	414	42	1219
Railways. Tunnel-construction for electric.....	G. T. Woods.....	386,282	July 17	1405	370	44	288
Railways. Turn-table for cable.....	C. Vogel.....	387,608	Aug. 7	630	164	44	693
Railways. Turn-table for street.....	J. W. Warhurst.....	389,620	Sept. 18	1248	327	44	1322
Railways. Turn-table switch for single-line elevated.....	O. B. Bocandé.....	391,294	Oct. 16	1568	416	45	316
Railways. Underground conduit and grip for electric.....	E. E. Ries and A. H. Henderson.....	383,770	May 29	2833	746	43	1091
Railways. Underground conduit for electric.....	S. A. Whipple.....	380,469	Apr. 3	239	65	43	49
Rake:							
See Hay-rake.	Lawn-rake.						
Horse-rake.	Rice-rake.						
Rake.....	R. W. Dixon.....	386,301	July 17	1131	378	44	293
Rake.....	E. W. Gunn.....	393,105	Nov. 20	1356	353	45	872
Rake.....	C. Thorp.....	394,521	Dec. 11	1162	303	45	1301
Rake and fork. Combined.....	L. R. Stagner.....	381,594	Apr. 24	1952	514	43	415
Rake and tedder. Combined.....	A. Wickey.....	392,705	Nov. 13	776	{ 196 197 }	45	750
Rake-tooth.....	A. E. Roberts.....	387,815	Aug. 14	925	239	44	757
Rake tooth. Horse.....	W. H. Patten.....	375,892	Jan. 3	219	60	42	47
Ram.....	J. F. Ward.....	379,427	Mar. 13	819	220	42	1128
Range-boilers. Pedestal for.....	A. P. Creque.....	376,767	Jan. 24	1520	400	42	313
Range. Heating and cooking.....	R. Savage.....	392,462	Nov. 6	426	106	45	675
Range or cooking-stove. Kitchen.....	R. A. Perrott.....	394,293	Dec. 11	830	{ 220 221 }	45	1239
Ranges. Broiling-oven for.....	J. G. Lyon.....	384,049	June 5	310	88	43	1180
Rasp.....	P. S. Stokes.....	383,999	June 5	234	68	43	1166
Rasp.....	R. Vollschwitz.....	379,620	Mar. 20	1116	296	42	1191
Rasp-cutting machine.....	J. and G. W. Stokes.....	376,400	Jan. 10	943	{ 247 248 }	42	189



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Rat-trap. Corn-crib .....	W. R. Parker .....	387,439	Aug. 7	357	92	44	642
Ratchet .....	J. L. Curtis .....	382,637	May 8	1152	297	43	740
Ratchet-and-pawl device .....	A. B. Case .....	383,624	May 29	2608	{ 629 } 690	{ 43 } 43	1048
Ratchet-clutch mechanism. Reversible .....	W. B. Turner .....	386,044	July 10	1040	277	44	213
Ratchet-drill .....	P. R. Erickson .....	390,013	Sept. 25	1840	{ 487 } 488	{ 41 } 41	1446
Ratchet-drill. Railway .....	A. Warren .....	380,152	Mar. 27	1925	513	42	1359
Ratchet drill-stock .....	W. Coppage .....	385,660	July 3	488	126	44	95
Ratchet-drill stock .....	J. T. Pedersen .....	386,261	July 17	1380	364	44	243
Ratchet-drill stock .....	C. H. Wilmoth .....	378,639	Feb. 28	1932	513	42	897
Ratchet. Gear .....	L. A. Brigel .....	390,646	Oct. 9	625	167	45	132
Ratchet-movement .....	W. S. Huson .....	383,054	May 15	1760	455	43	868
Rattan chair. Knockdown .....	B. J. Buckman .....	383,169	May 22	1930	{ 504 } 505	{ 43 } 43	911
Razor .....	A. L. Gayler .....	380,387	Apr. 3	123	36	43	26
Razor-blades. Attachable and detachable back for .....	A. V. Brokhahne and C. Langhein .....	377,926	Feb. 14	885	228	42	679
Razor-caster .....	J. B. Parker .....	391,186	Oct. 16	1415	378	45	288
Razor. Safety- .....	F. R. and O. Kampfe .....	385,462	July 3	193	50	44	38
Razor. Safety- .....	F. R. and O. Kampfe .....	387,359	Aug. 7	235	61	44	617
Razor. Safety- .....	H. B. Leach .....	385,636	July 3	460	119	44	89
Razor-sharpening machine .....	A. Dey .....	380,291	Sept. 11	763	{ 193 } 194	{ 44 } 44	1225
Razors. Device for sharpening .....	P. J. Caesar .....	382,027	May 1	220	58	43	554
Razors. Machine for honing .....	E. Wyttenbach .....	376,221	Jan. 10	705	188	42	145
Reamer .....	T. R. Almond .....	376,501	Jan. 17	1103	289	42	226
Reamer .....	J. Jetter .....	386,708	July 24	2018	532	44	718
Reamer .....	L. Lassen .....	393,767	Dec. 4	49	14	45	1081
Reamer and constructing the same .....	J. E. McConnell .....	393,775	Dec. 4	60	17	45	1084
Reamer. Expandible .....	H. Cassidy .....	376,427	Jan. 17	995	261	42	206
Reaming-tool .....	S. Hipkins, Jr .....	390,080	Sept. 25	1953	519	44	1470
Reaper and mower blades. Sharpener for .....	L. P. Sefton .....	379,335	Mar. 13	684	185	42	1104
Reapers and mowers. Cutter-bar for .....	J. D. Norris .....	390,510	Oct. 2	443	115	45	90
Reapers and mowers. Cutting apparatus for .....	A. Gunz .....	391,142	Oct. 16	1355	362	45	276
Reaping-machine .....	G. H. Howe .....	387,684	Aug. 14	742	{ 190 } 191	{ 44 } 44	721
Receptacle for fabrics .....	C. L. Eberhardt .....	390,012	Sept. 25	1838	487	44	1446
Receptacle for use in outhouses and like places .....	T. W. Carrio .....	387,857	Aug. 14	985	257	44	769
Reclining-chair .....	E. C. Ecker and J. H. Shaffer .....	390,353	Oct. 2	219	58	45	46
Reclining-chair .....	C. A. Hitchcock .....	389,926	Sept. 25	1724	456	44	1424
Reclining-chair .....	H. C. Kree .....	383,058	May 15	1765	456	43	869
Reclining-chair .....	A. E. Palmer .....	376,105	Jan. 10	533	142	42	114
Reclining-chair .....	C. H. Pew .....	378,902	Mar. 6	59	18	42	978
Reclining-chair .....	S. H. Schmuck .....	380,525	Apr. 3	331	95	43	68
Reclining-chair. Adjustable .....	L. Berger .....	377,011	Jan. 31	1872	493	42	388
Recorder: See Message and time Passenger mileage-re- recorder. recorder.							
Recording mechanism. Electrical .....	E. Weston .....	389,273	Sept. 11	727	184	44	1218
Rectum or vagina. Apparatus for cooling and warm- ing the	J. R. Hamilton .....	380,626	Apr. 3	477	135	43	97
Reducing-machine .....	G. and A. Raymond .....	387,539	Aug. 7	502	{ 131 } 132	{ 44 } 44	670
Reducing-machine .....	G. and A. Raymond .....	387,598	Aug. 7	618	160	44	691
Reel: See Bolting-reel. Measuring-reel. Centrifugal reel. Mower-reel. Fence-wire reel. Paper-reel. Fish-line reel. Skein-reel. Fishing-reel. Warping-reel. Flour-bolting reel. Wire-reel. Harvester-reel. Yarn-reel. Hose-reel.							
Reel and transportation-case. Combined .....	H. J. Millar .....	384,328	June 12	735	194	43	1260
Reel and transportation-case. Combined .....	H. J. Millar .....	384,329	June 12	737	194	43	1269
Reel-handle and fishing-reel. Combined .....	A. Coates .....	379,683	Mar. 20	1209	320	42	1210
Reel-support .....	G. F. Hall .....	381,124	Apr. 17	1271	340	43	264
Reeling-frame .....	E. Masson .....	378,933	Mar. 6	104	30	42	987
Reeling-machine .....	E. E. Bradley .....	376,509	Jan. 17	1111	{ 291 } 292	{ 42 } 42	228
Reeling-machines. Stop mechanism for .....	J. E. Atwood .....	376,571	Jan. 17	1191	{ 315 } 316	{ 42 } 42	243
Reflector and lantern .....	F. Billingham .....	390,835	Oct. 9	891	236	45	182
Reflector and reflecting-chandelier .....	W. M. Marshall .....	387,430	Aug. 7	336	87	44	638
Reflector. Window .....	C. G. A. F. W. E. Pihl .....	384,784	June 19	1406	368	43	1406
Refrigerating and ice-making by the use of ammonia. Apparatus for	R. F. Roswald .....	383,251	May 22	2045	{ 537 } 538 539	{ 43 } 43	934
Refrigerating-can .....	V. W. Blanchard .....	385,993	July 10	973	{ 259 } 260	{ 44 } 44	199
Refrigerating-machines. Separating-tank for .....	L. Block .....	389,494	Sept. 11	1048	279	44	1279
Refrigeration. Artificial .....	W. Andrew .....	379,264	Mar. 13	577	160	42	1080
Refrigerator .....	C. M. Bates .....	387,203	Aug. 7	9	2	44	574
Refrigerator .....	C. A. Blumh .....	385,089	June 26	1879	480	43	1506
Refrigerator .....	A. I. Dexter .....	384,965	June 26	1675	435	43	1464
Refrigerator .....	J. Frenier .....	379,533	Mar. 13	977	263	42	1158
Refrigerator .....	J. F. Frenier .....	389,143	Sept. 4	519	132	44	1168
Refrigerator .....	S. Fritch .....	377,246	Jan. 31	2206	522	42	453
Refrigerator .....	G. R. Hotchkiss and G. F. Smith .....	382,982	May 15	1627	{ 425 } 426	{ 43 } 43	842
Refrigerator .....	H. P. Judson .....	391,620	Oct. 23	2011	544	45	414
Refrigerator .....	G. M. Lee .....	378,254	Feb. 21	1377	361	42	780
Refrigerator .....	C. W. Monroe .....	379,521	Mar. 13	961	259	42	1155
Refrigerator .....	W. A. Preston .....	393,659	Nov. 27	2187	573	45	1046

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Refrigerator.....	R. Schierenbeek.....	376,263	Jan. 10	765	203	42	157
Refrigerator.....	C. G. Schmidt and C. Spengel.....	391,864	Oct. 30	2366	642	45	494
Refrigerator.....	C. W. Trotter.....	395,254	Dec. 25	2384	610	45	1555
Refrigerator-building.....	J. F. Hanrahan.....	392,917	Nov. 13	1086	282	45	812
Refrigerator-can.....	L. J. Cobb.....	386,769	July 24	2103	552	44	434
Refrigerator-car.....	N. Bosmann.....	376,024	Jan. 3	417	{ 110 111 }	42	83
Refrigerator-car.....	J. F. Hanrahan.....	392,204	Nov. 6	39	10	45	602
Refrigerator. Shell-fish.....	H. C. Constantin.....	382,410	May 8	799	204	43	671
Refrigerator-vehicle.....	W. E. Beard.....	387,943	Aug. 14	1134	304	44	798
Refuse-burner.....	T. Munroe and H. Park.....	389,403	Sept. 11	917	239	44	1254
Refuse-burners. Grate for.....	E. G. Teed.....	377,651	Feb. 7	456	117	42	581
Regenerative furnace.....	W. and J. C. Swindell.....	389,671	Sept. 18	1337	{ 250 251 }	44	1339
Register:							
See Bank-register. Photographic-print regis-							
Cash-register. ter.							
Check-register. Pool-register.							
Electro-magnetic Punch-register.							
register. Railway-passenger mile-							
Fare-register. age-register.							
Hot-air register. Telegraph-register.							
Hot-air and venti- Time-register.							
lating register. Toll-register.							
Package-register. Water-meter register.							
Passenger-register.							
Registering and numbering device.....	C. H. Davids.....	375,804	Jan. 3	109	31	42	25
Registering device. Electrical.....	S. M. Pruden.....	381,279	Apr. 17	1478	397	43	303
Regulator:							
See Air-compressor reg- Feed-regulator.							
ulator. Feed-water regulator.							
Boiler-feeder regu- Gas-regulator.							
lator. Gas-burner regulator.							
Clock pendulum-reg- Gas-engine speed-regula-							
ulator. tor.							
Current-regulator. Gas-motor regulator.							
Cut-off regulator. Gas-pressure regulator.							
Damper-regulator. Heat-regulator.							
Draft-regulator. Hot-air regulator.							
Electric regulator. Pressure-regulator.							
Electric-current Pumping-engine regu-							
regulator. lator.							
Electric-generator Radiator-regulator.							
regulator. Speed-regulator.							
Electric-light regu- Steam-regulator.							
lator. Temperature-regulator.							
Electric-machine Tooth-regulator.							
regulator. Watch-regulator.							
Electric-motor reg- Windmill-regulator.							
ulator.							
Reheating-furnace.....	T. C. Jones.....	382,966	May 15	1633	427	43	843
Rein-fastener. Safety.....	E. E. Brown.....	382,796	May 15	1379	362	43	793
Rein-guard. Harness.....	L. P. Dooley.....	379,186	Mar. 6	453	127	42	1053
Rein-holder.....	W. E. Beisonbert.....	381,608	Apr. 24	1974	519	43	419
Rein-holder.....	E. E. Brewster.....	380,676	Apr. 10	565	156	43	123
Rein-holder.....	M. A. Forward.....	389,959	Sept. 25	1763	467	44	1432
Rein-holder.....	C. W. Gilman.....	387,638	Aug. 14	673	174	44	708
Rein-holder.....	F. J. Lockwood.....	395,156	Dec. 25	2226	572	45	1527
Rein-holder.....	F. W. C. Macdonald.....	384,988	June 26	1709	443	43	1472
Rein-holder.....	T. Mangan.....	380,337	Apr. 3	45	16	43	11
Rein-holder.....	C. Schindler.....	391,984	Oct. 30	2540	687	45	529
Rein-holder.....	D. H. Stubbs.....	381,292	Apr. 17	1492	402	43	307
Rein-holder.....	C. Wendrich.....	385,891	July 10	843	223	44	172
Reins. Driving.....	M. S. Dickinson.....	392,789	Nov. 13	915	234	45	777
Reins, &c. Manufacture of round.....	A. Lobdell.....	379,796	Mar. 20	1376	365	42	1244
Relasting-machine.....	W. E. Sargent.....	385,396	July 3	54	16	44	13
Relay.....	J. E. Watson.....	383,843	May 29	2947	780	43	1113
Relay.....	J. E. Watson.....	384,222	June 5	564	{ 154 155 }	43	1230
Releasing device.....	C. P. and F. Wahlström.....	392,704	Nov. 13	775	196	45	750
Releasing device.....	M. H. Whalen.....	384,106	June 5	383	107	43	1194
Relief-die and making the same.....	G. F. and J. W. McIndoe.....	385,519	July 3	277	71	44	56
Rennet. Producing dried extract of.....	F. Graeff.....	384,358	June 12	782	.....	43	1277
Resonator. Tubular.....	J. Harrington.....	389,841	Sept. 18	1573	417	44	1367
Respirator.....	J. C. Locke.....	390,027	Sept. 25	1858	493	44	1450
Retene. Obtaining.....	W. Kelbe.....	386,830	July 31	2238	.....	44	467
Retort and burner attached. Generating.....	W. P. Patton.....	380,514	Apr. 3	319	91, 92	43	66
Retort-door.....	R. Haberbür and R. Brenner.....	392,202	Nov. 6	37	9	45	601
Retorts. Device for charging.....	A. Lentz.....	376,531	Jan. 17	1142	299	42	233
Retouching device.....	G. F. Card.....	383,436	May 29	2328	618	43	991
Return-bend.....	R. G. Eunson.....	378,878	Mar. 6	32	8, 9	42	972
Reverberatory furnace.....	M. M. Bair.....	393,091	Nov. 20	1330	349	45	868
Reversing-gear.....	W. F. Diden.....	393,219	Nov. 20	1521	399	45	906
Revolver.....	H. M. Caldwell.....	395,119	Dec. 25	2163	558	45	1517
Revolver.....	C. J. Ehbets.....	392,503	Nov. 6	478	120	45	685
Revolver.....	A. Greth.....	378,091	Feb. 21	1117	292	42	733
Revolver.....	A. F. Hood.....	391,612	Oct. 23	1996	539	45	411
Revolver.....	A. F. Hood.....	391,613	Oct. 23	1998	539	45	411
Revolver.....	I. Johnson and A. Fyrberg.....	379,226	Mar. 13	531	148	42	1072
Revolver.....	I. Johnson and A. Fyrberg.....	379,227	Mar. 13	532	149	42	1072
Revolver.....	I. Johnson and A. Fyrberg.....	391,154	Oct. 16	1370	365	45	278
Revolver.....	I. Johnson and A. Fyrberg.....	391,156	Oct. 16	1375	366	45	279
Revolver.....	J. T. Smith.....	376,922	Jan. 24	1743	{ 458 459 }	42	355

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Revolver.....	J. T. Smith.....	394,027	Dec. 4	421	113	45	1152
Revolver.....	W. H. Sprague.....	380,361	Apr. 3	87	27	43	20
Revolver.....	R. T. Torkelson.....	391,213	Oct. 16	1453	388	45	295
Revolver.....	R. T. Torkelson.....	391,214	Oct. 16	1455	388	45	296
Revolver.....	D. B. Wesson.....	377,878	Feb. 14	815	208	42	665
Revolvers. Barrel-catch device for.....	D. B. Wesson.....	377,877	Feb. 14	814	208	42	665
Revolvers. Barrel-lock for.....	I. Johnson and A. Fyrberg.....	379,225	Mar. 13	529	148	42	1072
Revolvers. Extracting mechanism for.....	D. H. Rice.....	385,009	June 26	1754	454	43	1482
Revolving frame.....	J. T. King.....	391,800	Oct. 30	2376	617	45	477
Rheostat.....	S. Bergman.....	395,116	Dec. 25	2156	556	45	1515
Rheostat.....	F. J. Crouch.....	383,345	May 22	2180	577	43	958
Rheostat.....	W. H. Knight.....	384,044	June 5	303	86	43	1178
Rheostat.....	J. W. Packard.....	385,001	June 26	1741	450	43	1479
Rheostat.....	E. W. Rice, Jr.....	383,913	June 5	101	30	43	1140
Ribbon-holder.....	W. E. Wright.....	381,198	Apr. 17	1363	364	43	281
Ribbon-spool.....	J. J. Necker and C. Gifford.....	383,141	May 22	1892	493	43	904
Rice-hulling machine.....	J. D. Belton.....	376,626	Jan. 17	1292	340	42	262
Rice-hulling machine.....	E. C. Engelberg.....	383,285	May 22	2105	556	43	944
Rice-machine.....	E. Eaches.....	387,867	Aug. 14	1002	261	44	772
Rice-rake, cotton-chopper, and cultivator.....	J. A. Gardner.....	380,883	Apr. 10	875	235	43	179
Rice-separator.....	C. J. Allen.....	382,931	May 15	1553	407	43	829
Riddle or sieve.....	E. Oliver.....	378,458	Feb. 28	1681	440	42	846
Rigging. Device for setting up.....	F. Wheeler.....	377,055	Jan. 31	1929	507	42	399
Ring:							
See Curtain-ring.	Nose-ring.						
Finger-ring.	Open ring.						
Initial-ring.	Packing-ring.						
Key-ring.	Tool-post ring.						
Napkin-ring.	Yoke-ring.						
Rings, &c. Machine for forming.....	W. G. Martens.....	392,354	Nov. 6	263	68	45	644
Rivet.....	A. Kirks.....	384,318	June 12	713	189	43	1266
Rivet.....	S. W. Shorey.....	388,458	Aug. 28	1948	521	44	968
Rivet-burr remover.....	E. H. Perkins.....	385,133	June 26	1945	497	43	1520
Rivet-extractor.....	P. Snitzel.....	380,703	Apr. 10	599	165	43	129
Rivet-holding device.....	J. Bardsley.....	379,204	Mar. 13	501	141	42	1067
Rivet set and header.....	W. Lowe.....	394,779	Dec. 18	1609	422	45	1403
Rivet-setting machine.....	W. C. Bray.....	382,350	May 8	714	181	43	654
Rivet-setting machine.....	C. M. Platt.....	394,722	Dec. 18	1499	391 392	45	1380
Rivet-setting machine.....	C. M. Platt.....	394,723	Dec. 18	1501	392	45	1380
Rivet-setting machine.....	C. M. Platt and F. R. White.....	380,132	Mar. 27	1900	507	42	1533
Rivet-setting machine.....	A. M. White.....	394,743	Dec. 18	1543	403	45	1389
Rivet-shanks. Machine for slotting.....	J. J. Unbehend.....	381,514	Apr. 17	1832	484 485 114 115	43	374
Riveting-machine.....	J. W. Bartlett.....	392,487	Nov. 6	457	114 115	45	681
Riveting-machine.....	G. W. Bradley.....	375,725	Jan. 3	6	2	42	3
Riveting-machine.....	G. D. Edmeston.....	392,594	Nov. 13	618	155	45	719
Riveting-machine.....	J. B. Frost.....	384,199	June 5	532	145 146 215 216	43	1924
Riveting-machine.....	A. Piat and L. Delaloe.....	392,751	Nov. 13	845	216	45	764
Riveting-machine.....	H. O. Roberts.....	375,772	Jan. 3	69	21	42	18
Rivoting-machine.....	J. L. Saxe, N. M. Seelye, and F. W. Coy.....	377,051	Jan. 31	1918	504 505	42	396
Road and ditching machine. Reversible.....	H. C. Moore.....	377,041	Jan. 31	1906	501	42	394
Road. Apparatus for recording the direction and gradients of a.....	A. E. D. F. de Villepigne.....	382,868	May 15	1467	385	43	812
Road digger and grader.....	A. Finks.....	378,782	Feb. 28	2130	563 564	42	934
Road-engine.....	W. S. Wootton.....	387,612	Aug. 7	636	165	44	694
Road-machine.....	A. Finks.....	378,781	Feb. 28	2128	563	42	933
Roads. Machine for making, repairing, and cleaning.....	C. H. Burleigh.....	379,679	Mar. 20	1199	317 318	42	1907
Roads. Machine for making, repairing, and clearing.....	G. W. Taft.....	380,954	Apr. 10	986	261	43	201
Roadway or pavement.....	G. S. Lee.....	394,583	Dec. 18	1920	335	45	1337
Roadways. Composition for.....	L. N. Beauchemin.....	385,496	July 3	218	.....	44	50
Roaster:							
See Coffee-roaster.	Peanut-roaster.						
Rock. Apparatus for reducing bituminous.....	G. E. Belmore.....	381,321	Apr. 17	1535	414	43	315
Rock-breaker or ore-crusher.....	J. H. Lancaster.....	380,121	Mar. 27	1885	501 502	42	1350
Rock-channeling machine. Gang-drill.....	A. Ball.....	392,398	Nov. 6	332	82	45	656
Rock-channeling machine. Gang-drill.....	A. Ball.....	392,399	Nov. 6	334	82, 83	45	657
Rock-crusher.....	J. B. Low.....	393,440	Nov. 27	1842	486	45	976
Rock-drill.....	A. W. and Z. W. Daw.....	389,740	Sept. 18	1437	376	44	1359
Rock-drill.....	S. Ingersoll.....	381,838	Apr. 24	2309	600	43	483
Rock-drill.....	J. Massett.....	389,587	Sept. 18	1198	313 314	44	1313
Rock-drill.....	N. Miller and J. Ritchie.....	387,096	July 31	2612	686	41	539
Rock-drill.....	W. O'Keefe.....	382,895	May 15	1507	395	43	821
Rock-drill.....	W. Weaver.....	387,127	July 31	2675	700 701	44	548
Rock-drill. Electric.....	G. Guntz.....	387,160	July 31	2716	712	44	556
Rock-drill. Electro-magnetic air-compressing.....	R. G. G. Moldenke.....	394,203	Dec. 11	685	183	45	1211
Rock-drill. Hand.....	J. O. Patridge.....	380,051	Mar. 27	1785	477	42	1330
Rock-drill. Steam.....	T. F. Farrell.....	390,578	Oct. 2	535	140	45	108
Rock-drill. Steam.....	G. E. Nutting and J. C. Githens. (Reissue.).....	10,975	Dec. 11	1211	315	45	1310
Rock-drill. Steam.....	A. J. Sypher.....	389,775	Sept. 18	1480	389 390	44	1369
Rock-drill support.....	P. Kelly.....	388,203	Aug. 21	1563	415	44	886
Rock-drills. Core-lifter for annular.....	H. Cossette.....	377,239	Jan. 31	2196	579	42	451
Rock-drills. Drift column or support for.....	P. Kelly.....	376,639	Jan. 17	1343	353	42	271

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Rock-drills. Rotation device for.....	G. R. Cullingworth.....	392,541	Nov. 6	535	135	45	696
Rock-drilling implement.....	D. Kilpatrick.....	391,899	Oct. 30	2415	653	45	504
Rock-drilling machine.....	C. Bornet.....	391,449	Oct. 23	1782	476	45	365
Rock-drilling machine.....	T. J. Murphy.....	383,063	May 15	1772	458	43	871
Rock-drilling machine.....	J. A. Pashley.....	388,711	Aug. 28	2312	622	44	1037
Rock-drilling-machine tripod.....	T. J. Murphy.....	383,064	May 15	1774	459	43	871
Rock-drilling tool.....	J. W. Wyckoff.....	395,105	Dec. 25	2132	551	45	1512
Rocker-spring.....	G. H. Hebbard.....	380,891	Apr. 10	891	239	43	183
Rockers. Center-bearing spring for.....	H. G. Portmann.....	390,898	Oct. 9	974	257	45	197
Rocket.....	P. Licht, Jr.....	393,990	Dec. 4	375	101	45	1143
Rocket.....	W. Meissel.....	379,970	Mar. 27	1660	{ 442 443 }	42	1306
Rocking-chair.....	G. F. Hall.....	383,808	May 29	2901	{ 765 766 }	43	1104
Rocking-chair. Adjustable folding and convertible..	C. N. Holden and C. Rasmussen.....	389,572	Sept. 18	1167	{ 306 307 }	44	1308
Rod:							
See Connecting-rod. Lightning-rod.							
Eccentric-rod. Pump-rod.							
Fishing-rod. Saw-rod.							
Rod-coupling.....	J. Bottomes.....	377,186	Jan. 31	2110	556	42	436
Rod-cutter.....	H. V. Robinson.....	385,139	June 26	1952	499	43	1521
Rod-joint.....	J. G. Spear.....	389,335	Sept. 11	816	208	44	1235
Rod-mill.....	H. Roberts.....	392,365	Nov. 6	279	71	45	648
Rod mill. Wire.....	H. Roberts.....	392,364	Nov. 6	277	71	45	647
Rod-polishing machine.....	L. Switzer.....	386,792	July 24	2142	{ 562 563 }	44	441
Rods and tubes. Machine for drawing.....	C. M. Pielsticker.....	389,729	May 15	1284	336	43	775
Rods. Machine for forming eyes on.....	C. O. Wilder.....	383,064	May 15	1808	471	43	877
Rodents. Implement for exterminating.....	E. P. Koontz.....	382,708	May 15	1258	329	43	769
Roll. Calendaring.....	S. A. Hodge.....	387,879	Aug. 14	1020	268	44	775
Roll. Dandy.....	W. D. Stevens.....	387,118	July 31	2646	696	44	545
Roll-holder for sensitive films.....	W. H. Lewis.....	391,167	Oct. 16	1390	370	45	282
Roll-housing.....	W. R. Jones.....	388,049	Aug. 21	1298	351	44	837
Rolls.....	E. L. Clark.....	390,203	Oct. 2	11	3	45	5
Rolls. Apparatus for removing and setting.....	W. R. Jones.....	385,058	June 26	1837	470	43	1497
Rolls. Appliance for.....	W. R. Jones.....	382,704	May 15	1254	328	43	768
Rolls. Housing-cap for.....	W. R. Jones.....	383,056	May 15	1762	455	43	869
Rolls. Mechanism for actuating guide.....	R. Smith.....	395,253	Dec. 25	2382	{ 609 610 }	45	1555
Rolls. Mechanism for cleaning toothed feed.....	H. Tindell.....	378,739	Feb. 28	2071	546	42	923
Roller:							
See Anti-friction roller. Land-roller.							
Barrel-roller. Printer's ink-roller.							
Crushing-mill roller. Saw-mill stock-roller.							
Field-roller. Shade-roller.							
Gate-roller. Street-roller.							
Roller and grain-drill. Combined.....	O. C. Kroh.....	393,839	Dec. 4	154	42	45	1101
Roller-dies. Guide for.....	G. J. Capewell.....	393,356	Nov. 27	1724	{ 456 457 }	45	953
Roller for machinery for opening, &c., fibrous substances. Toothed	E. Sykes and E. Wilkinson.....	387,377	Aug. 7	271	68	44	624
Roller-mill.....	H. A. Barnard.....	376,023	Jan. 3	415	110	42	83
Roller-mill.....	H. A. Barnard.....	382,583	May 8	1076	{ 276 277 }	43	725
Roller-mill.....	J. R. Beynon.....	394,814	Dec. 18	1663	435	45	1413
Roller-mill.....	W. A. Cantwell.....	390,839	Oct. 9	897	237	45	183
Roller-mill.....	P. Ferrier.....	380,878	Apr. 10	864	233	43	178
Roller-mill.....	H. J. Gilbert.....	389,380	Sept. 11	879	{ 228 229 230 }	44	1248
Roller-mill.....	J. D. Mawhood.....	381,710	Apr. 24	2116	553	43	448
Roller-mill.....	J. D. Mawhood.....	384,919	June 19	1610	418	43	1443
Roller-mill.....	J. D. Mawhood.....	385,420	July 3	130	35	44	27
Roller-mill.....	J. A. McNulty.....	394,279	Dec. 11	808	{ 214 215 }	45	1235
Roller-mill.....	O. C. Ritter.....	389,247	Sept. 11	692	176	44	1212
Roller-mill.....	A. J. Shontz.....	388,730	Aug. 28	2334	{ 628 629 }	44	1041
Roller-mill.....	W. W. Westrup and G. T. Lantaff.....	384,408	June 12	853	221	43	1291
Roller mill. Three.....	J. L. Willford.....	393,681	Nov. 27	2219	{ 581 582 }	45	1053
Rolling angle-shaped slot-rails. Rolls for.....	F. Colley.....	387,148	July 31	2701	708	44	552
Rolling apparatus.....	W. L. Price.....	384,591	June 12	1122	296	43	1341
Rolling articles of metal. Die for.....	D. E. Kempster.....	385,180	June 26	2010	516	43	1535
Rolling car-wheels. Machine for.....	R. Bagaley and W. Hainsworth.....	379,754	Mar. 20	1307	349	42	1230
Rolling car-wheels. Machine for.....	H. W. Fowler.....	394,565	Dec. 18	1251	328	45	1332
Rolling flangeless center-bearing rails. Roll for.....	A. J. Moxham.....	378,211	Feb. 21	1297	344	42	767
Rolling girder-rails. Machine for.....	A. J. Moxham.....	391,550	Oct. 23	1920	516	45	395
Rolling girder-rails. Roll for.....	A. J. Moxham.....	378,209	Feb. 21	1295	{ 342 343 }	42	766
Rolling girder-rails. Roll for.....	A. J. Moxham.....	378,210	Feb. 21	1296	{ 343 344 }	42	766
Rolling. Machine for scarf.....	J. W. Evans.....	389,504	Sept. 11	1061	282	44	1281
Rolling machine. Metal.....	D. E. Kempster.....	380,759	Apr. 10	6-7	190	43	146
Rolling machine. Metal.....	D. E. Kempster.....	388,565	Aug. 28	2092	563	44	995
Rolling metal.....	R. A. Carter.....	390,344	Oct. 2	294	54	45	43
Rolling metal articles to form. Machine for.....	C. F. Tebbetts.....	384,878	June 19	1559	405	43	1433
Rolling metallic bodies to spheroidal forms. Device for.....	C. F. Tebbetts.....	375,783	Jan. 3	85	26	42	21
Rolling-mill.....	W. H. Appleton.....	394,635	Dec. 18	1365	{ 357 358 }	45	1352
Rolling-mill.....	R. A. Carter.....	390,343	Oct. 2	201	{ 53, 54 }	45	43

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Rolling-mill	F. H. Daniels	387,495	Aug. 7	435	{ 113 114 }	41	657
Rolling-mill	J. Fawell and J. Hemphill	382,035	May 1	240	61, 62	43	558
Rolling-mill	W. J. Lewis	392,210	Nov. 6	46	12, 13	45	603
Rolling-mill	C. F. Lloyd	394,122	Dec. 4	561	151	45	1178
Rolling-mill	C. A. Nighman	384,063	June 5	330	94	43	1184
Rolling-mill	J. T. Richardson and A. Rapp	383,990	June 5	220	66	43	1163
Rolling-mill	H. A. Williams	395,024	Dec. 25	2011	519	45	1487
Rolling-mill	F. H. Wright	393,505	Dec. 4	98	28	45	1092
Rolling-mill	A. Zdzarski	392,484	Nov. 6	454	114	45	681
Rolling-mill apparatus	F. H. Daniels	390,285	Oct. 2	119	31	45	27
Rolling-mill for making tubes	S. P. M. Tasker	382,017	May 1	202	53, 54	43	551
Rolling-mill guide	J. W. Walsh	385,434	July 3	150	40	44	31
Rolling-mill housing	J. Eynon	379,510	Mar. 13	946	255	42	1151
Rolling-mill. Metal-working	S. W. Baldwin	385,437	July 3	157	12, 43	44	32
Rolling-mill plant	W. Garrett and S. T. Wellman	381,689	Apr. 24	2082	545	43	441
Rolling-mill plant	C. H. Morgan	379,974	Mar. 27	1666	444	42	1308
Rolling-mill plant	C. H. Morgan and K. J. Snnstrom	379,902	Mar. 20	1561	{ 411 412 }	42	1277
Rolling-mill roll	A. Newell	379,595	Mar. 20	1078	287	42	1184
Rolling-mills. Appliance for	D. B. Oliver	384,332	June 12	743	195	43	1270
Rolling-mills. Bloom-manipulator for	R. Naysmith	378,612	Feb. 28	1893	501	42	890
Rolling-mills. Duplex conductor for	W. F. Thompson	391,664	Oct. 23	2065	559	45	425
Rolling-mills. Feed-table for	D. B. Oliver	386,412	July 17	1595	419	44	329
Rolling-mills. Feeding appliance for	J. Morgan, Jr.	383,000	May 15	1653	{ 432 433 }	43	848
Rolling-mills. Flexible guide for	C. F. Lloyd	387,170	July 31	2731	717	44	558
Rolling-mills. Guide for	L. Chapman	388,121	Aug. 21	1440	385	44	863
Rolling-mills. Protecting device for	J. Paton	388,440	Aug. 28	1924	514	44	962
Rolling-mills. Reeling apparatus for rod	F. H. Daniels	381,217	Apr. 17	1384	370	43	285
Rolling-mills. Reversing mechanism for	D. B. Hicks	390,259	Mar. 27	2067	553	42	1388
Rolling-mills. Rolls for iron	A. W. H. Collard	384,308	June 12	700	186	43	1264
Rolling overhanging slot-rails. Rolls for	F. Colley	387,147	July 31	2700	{ 707 708 }	44	552
Rolling sheet metal	F. H. Wright	381,746	Apr. 24	2164	566	43	457
Rolling side-flanged center-bearing rails. Mill for	E. Simpson	394,094	Dec. 4	417	112	45	1151
Rolling side-flanged grooved rails. Mill for	E. Simpson	394,022	Dec. 4	416	112	45	1151
Rolling side-flanged guard-rails. Mill for	E. Simpson	394,021	Dec. 4	415	112	45	1151
Rolling side-webbed girder-rails. Mill for	E. Simpson	394,023	Dec. 4	416	112	45	1151
Rolling slot-rails for cable railways	A. J. Moxham	388,995	Sept. 4	270	71, 72	44	1125
Rolling tires	P. Gendron	383,521	May 29	2470	652	43	1017
Rolling-train	W. Bansen	388,389	Aug. 28	1858	{ 455 496 }	44	949
Rolling wire nails. Machine for	A. G. Wilkins	385,784	July 10	676	177	44	140
Roof	R. J. Claffin	384,961	June 26	1668	434	43	1463
Roof	J. Haish	386,465	July 24	1681	443	44	355
Roof-climbing device	F. Kramer	380,395	Apr. 3	133	40	43	28
Roof. Sheet-metal	F. E. Sagendorph	378,725	Feb. 28	2056	542	42	920
Roofs, &c. Construction of	H. C. Hodges	381,137	Apr. 17	1279	342	43	266
Roofs of barracks. Means for elevating and support- ing the	C. H. Thomas	392,764	Nov. 13	867	221	45	709
Roofing	O. Böklen	394,450	Dec. 11	1057	275	45	1282
Roofing	C. M. Garrison	391,237	Oct. 16	1487	—	45	302
Roofing	S. R. Hawthorne	386,316	July 17	1451	384	44	297
Roofing	H. Schullhoff	376,918	Jan. 24	1738	457	42	355
Roofing. Cap and anchor for metallic	B. F. Caldwell	381,756	Apr. 24	2179	570	43	459
Roofing. Cleat for metallic	L. L. Sagendorph	390,806	Oct. 9	845	225	45	174
Roofing compound	C. S. Bushnell	389,050	Sept. 4	352	—	44	1139
Roofing. Edge-turner for sheet-metal	W. K. Patrick	392,132	Oct. 30	2775	754	45	575
Roofing fabric	A. Jones	385,057	June 26	1835	470	43	1497
Roofing-felt. Machine for cutting, sanding, and roll- ing	B. C. Waite	380,065	Mar. 27	1802	{ 481 482 }	42	1334
Roofing-felt. Manufacture of	H. M. Miner	380,915	Apr. 10	921	246	43	188
Roofing. Machine for painting metallic	B. F. Caldwell and W. F. Peterson	381,757	Apr. 24	2180	570	43	459
Roofing. Metal	A. A. Cushman	385,408	July 3	166	30	44	23
Roofing. Metallic	J. H. Packer	393,516	Nov. 27	1972	514	45	1002
Roofing. Mineral-cement gravel	A. G. Cummings	387,580	Aug. 7	501	—	44	685
Roofing-plate or shingle. Metallic	A. O. Keedy	390,236	Oct. 2	60	17	45	16
Roofing-slate. Device for securing	J. H. Keedy	387,360	Aug. 7	236	61	44	617
Roofing. Tile	A. W. Cooper	380,864	Apr. 10	842	228	43	174
Roofing-tin. Brake for edging	J. Fitzberger	391,408	Oct. 23	1724	459	45	354
Roofing-tool. Double-seaming	W. K. Patrick	392,131	Oct. 30	2774	753	45	575
Roofing. Water and fire proof composite	W. Chadd	383,101	May 22	1836	481	43	893
Room-ventilator	F. Foellmer	376,770	Jan. 24	1523	401	42	314
Rope-carrying device	G. C. Howard	386,826	July 31	2230	586	41	465
Rope-clamp	J. W. and A. B. Wood	393,952	Dec. 4	317	87	45	1133
Rope-cutter	B. Heaton and P. Hohmann	378,004	Feb. 14	999	261	42	702
Rope-grip or salvage-strop	A. K. Evans	383,803	May 29	2895	764	43	1103
Rope transmission. Slack-take-up for	W. H. Dodge	383,282	May 22	2101	554	43	944
Rope transmission. Tension device for	J. E. Hall	381,360	June 12	785	205	43	1278
Rope-traveler	H. G. Powell	380,267	Mar. 27	2077	556	42	1390
Rotary bolt	W. M. Kennedy	394,925	Dec. 25	1960	505	45	1477
Rotary cutter	C. H. Benjamin	388,523	Aug. 28	2035	548	44	985
Rotary cutter	H. P. Fairfield	388,548	Aug. 28	2067	556	44	991
Rotary cutter	H. P. Fairfield and C. H. Benjamin	388,547	Aug. 28	2066	556	44	991
Rotary cutter	J. F. Freeman	388,549	Aug. 28	2069	557	44	991
Rotary cutter	C. W. Glidden	388,552	Aug. 28	2074	578	44	992
Rotary cutter	M. T. Harrigan	386,538	July 24	1790	473	44	371
Rotary cutter	J. E. Maynardier	380,338	Apr. 3	46	16	43	11
Rotary cutter	G. H. Wesseling	394,803	Dec. 18	1648	43	45	1416
Rotary-cylinder engine	J. S. Barden	385,226	June 26	2073	531	43	1546
Rotary engine	J. E. Beauchemin	388,522	Aug. 28	2032	517	44	984
Rotary engine	A. W. and W. G. Billings	382,209	May 1	483	{ 124 125 }	43	602

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Rotary engine.....	C. H. Cary.....	392,538	Nov. 6	528	133	45	695
Rotary engine.....	W. H. Conner, G. M. Sheffer, and R. V. Gilbert.	393,620	Nov. 27	2130	557	45	1034
Rotary engine.....	C. W. Doten.....	386,774	July 24	2113	554	44	435
Rotary engine.....	J. M. Farmer.....	394,684	Dec. 18	1448	377	45	1369
Rotary engine.....	W. J. Fisk and H. L. Phelps.....	379,385	Mar. 13	755	204	42	1115
Rotary engine.....	J. I. Friar.....	391,892	Oct. 30	2405	651	45	502
Rotary engine.....	J. A. Gregersen and A. G. Grammas.	385,805	July 10	706	183	44	145
Rotary engine.....	C. Haden.....	388,969	Sept. 4	241	64	44	1118
Rotary engine.....	R. H. Heenan.....	394,922	Dec. 18	1862	481	45	1449
Rotary engine.....	A. Hemsath.....	379,112	Mar. 6	367	105	42	1035
Rotary engine.....	J. A. Hurdle and A. W. Steiger.....	389,927	Sept. 25	1725	456	44	1424
Rotary engine.....	J. C. Jarvis.....	383,530	May 29	2485	655	43	1020
Rotary engine.....	A. L. Jofferis and W. C. Thurman.	380,489	Apr. 3	266	73	43	55
Rotary engine.....	C. Ludvik.....	393,567	Nov. 27	2041	535	45	1018
Rotary engine.....	J. Marvin.....	388,210	Aug. 21	1573	419	44	889
Rotary engine.....	J. C. Robertson, E. F. Townsend, and W. G. Root.	388,309	Aug. 21	1731	462	44	920
Rotary engine.....	C. F. Sleigh.....	389,328	Sept. 11	806	205	44	1233
Rotary engine.....	J. E. Snevely.....	381,287	Apr. 17	1487	401	43	305
Rotary engine.....	L. J. Strait.....	388,379	Aug. 21	1845	490	44	940
Rotary engine.....	E. E. Thomas.....	387,606	Aug. 7	627	163	44	603
Rotary engine.....	F. L. Voorhies.....	390,044	Sept. 25	1893	499	44	1457
Rotary engine.....	P. J. Weber.....	377,364	Jan. 31	2387	690	42	485
Rotary engine.....	G. H. Weston.....	392,653	Nov. 13	704	177	45	735
Rotary engine.....	D. Williamson.....	375,788	Jan. 3	91	27	42	22
Rotary liquid-meter.....	W. E. Pearson.....	380,764	Apr. 10	697	193	43	148
Rotary motor.....	C. A. Parsons.....	391,071	Oct. 16	1258	334	45	258
Rotary motor operated by fluid-pressure.....	V. Popp.....	378,146	Feb. 21	1210	315	42	749
Rotary steam-engine.....	A. B. Bullock.....	377,143	Jan. 31	2055	539	42	424
Rotary steam-engine.....	J. S. Byers.....	394,242	Dec. 11	753	199	45	1224
Rotary steam-engine.....	J. H. Dow.....	392,545	Nov. 6	539	136	45	697
Rotary steam-engine.....	A. D. Minier.....	392,356	Nov. 6	267	68	45	645
Rotary vapor-engine.....	R. Hewson.....	382,424	May 8	817	209	43	675
Roundabout.....	W. Sassack.....	384,393	June 12	831	216	43	1286
Rounding-out and channel-flap-turning machine.....	C. P. Stanbon.....	375,960	Jan. 3	316	84, 85	42	65
Rounding-out machine.....	V. H. Whittaker.....	384,807	June 19	1440	377	43	1412
Routing-machine.....	G. K. Birge, G. W. Shamp, and C. F. W. Lehmann.	376,134	Jan. 10	582	156	42	122
Roving frames. Spindle-tube bearing for.....	J. Kerrivan.....	377,678	Feb. 7	493	127	42	588
Roving machine.....	A. E. Rhoades.....	386,352	July 17	1493	396	44	305
Rovings. Machine for making heavy.....	J. Scholes.....	382,908	May 15	1524	398	43	824
Rovings, &c. Mechanism for evening.....	G. F. Evans.....	389,695	Sept. 18	1371	359	44	1345
Rowing apparatus.....	R. Massey.....	385,465	July 3	196	51	44	39
Rowing apparatus.....	A. G. Smith.....	387,743	Aug. 14	828	214	44	737
Rowing-gear.....	O. Tippy and F. D. Smith.....	389,989	Sept. 25	1811	479	44	1441
Rowing-machine.....	W. and J. H. Tracy.....	381,187	Apr. 17	1346	360	43	278
Rowlock.....	J. F. Roblin.....	380,220	Mar. 27	2016	539	42	1377
Rubber. Apparatus for coating fabric with.....	J. H. Pearce.....	376,344	Jan. 10	875	229	42	177
Rubber boot.....	J. D. Thomas.....	382,498	May 8	936	237	43	697
Rubber boots. Strap for.....	F. A. Joseph.....	384,914	June 19	1604	417	43	1442
Rubber compound or mixture.....	J. A. Titzel.....	391,927	Oct. 30	2458	.....	45	513
Rubber-dam adjuster and clamp.....	J. W. Ivory.....	384,578	June 12	1102	290	43	1338
Rubber-dam clamp.....	J. H. Hatch.....	376,437	Jan. 17	1009	265	42	209
Rubber-dam clamp and napkin-holder. Combined.....	J. W. Ivory.....	384,577	June 12	1101	289	43	1338
Rubber fountains, &c. Stopper for.....	A. C. Eggers.....	385,256	June 26	2129	543	43	1558
Rubber goods. Machine for forming seamless.....	F. Southgate.....	375,778	Jan. 3	79	23, 24	42	19
Rubber goods. Machine for making figured gossamer.....	D. Harkins.....	378,247	Feb. 21	1363	358	42	778
Rubber. Lining hollow articles with hard.....	M. Dittenhoefer.....	378,776	Feb. 28	2122	560	42	932
Rubber mat for store cases and counters.....	C. S. Hyer.....	378,369	Feb. 21	1541	403	42	812
Rubber or its compounds into hardened rubber. Composition for converting india.....	W. B. McGarvey.....	383,137	May 22	1888	.....	43	903
Rubber shoe.....	E. Stout.....	384,097	June 5	372	105	43	1192
Rubber soles. Method of and apparatus for cutting.....	M. Snyder and A. Rohl.....	378,405	Feb. 21	1593	418	42	822
Rubber upon one or both sides. Machine for coating fabric with india.....	J. H. Pearce.....	376,343	Jan. 10	873	229	42	177
Ruby-pin setter.....	F. Hyde.....	384,693	June 19	1290	337	43	1382
Ruby-pin setter.....	P. Ramser.....	384,544	June 12	1053	275	43	1338
Ruching. Machine for manufacturing.....	C. G. Hill.....	387,878	Aug. 14	1019	264	44	775
Rudder.....	W. W. Huntley.....	381,786	Apr. 24	2217	540	43	467
Rudder-stocks upon vessels. Bearing and support of.....	J. N. Long and J. McCaffrey.....	381,148	Apr. 17	1295	346	43	269
Rudders. Apparatus for controlling ships.....	T. G. Stevens.....	381,035	Apr. 10	1113	297	43	225
Rudders. Combined bearing and stuffing-box for.....	J. H. Konitzky.....	383,646	May 29	2639	699	43	1054
Rudders. Device for indicating the position of boat.....	T. Flaherty.....	390,764	Oct. 9	7-9	210	45	163
Ring-making device.....	A. L. Hall.....	378,884	Mar. 6	40	11	42	974
Ring or mat.....	J. Davidson.....	386,628	July 24	1904	503	44	398
Rule. Board.....	E. Andrews.....	392,091	Oct. 30	2714	737	45	563
Rule. Carpenter's.....	M. H. Walsh.....	388,605	Aug. 28	2156	579	44	1068
Rule. Folding.....	A. Ryan.....	376,165	Jan. 10	629	168	42	132
Rule for measuring lumber.....	P. Gleason.....	375,742	Jan. 3	34	10	42	10
Rule, level, and plumb. Combined.....	C. Adams.....	384,951	June 26	1657	431	43	1461
Rule. Measuring.....	T. H. Wright.....	392,143	Oct. 30	2795	759	45	579



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr-g.	Vol.	Page.
Rule. Pocket.....	J. McLean.....	378,894	Mar. 6	53	15	42	976
Rule. Pocket.....	J. A. Traut.....	387,570	Aug. 7	572	149	44	682
Rule, square, bevel, calipers, dividers, &c. Combined.....	J. C. Spencer and J. G. Smith.....	380,360	Apr. 3	86	27	43	19
Rules. Attachment for carpenters'.....	G. F. Hall and J. A. Traut.....	389,647	Sept. 18	1300	341	44	1331
Ruler.....	J. H. Blake.....	392,846	Nov. 13	994	255	45	794
Ruler and check-cutter. Combined desk.....	H. B. Reardon.....	386,718	July 24	2030	535	44	420
Ruler and section-liner. Parallel.....	W. C. Meyer.....	378,142	Feb. 21	1204	313	42	748
Ruler, blotter, and paper-cutter. Combined.....	E. Baltzley.....	375,722	Jan. 3	2	1	42	3
Ruler. Combination.....	H. Goldsmith.....	378,928	Mar. 6	95	28	42	985
Ruler. Flexible.....	J. H. Donahue and E. T. Bradley.....	386,869	July 31	2292	602	44	477
Ruler. Parallel.....	B. F. Hardaway.....	385,512	July 3	269	69	44	55
Ruling attachment. Blackboard.....	S. L. Bettes.....	377,663	Feb. 7	473	120	42	584
Ruling-machine.....	G. D. Barnard and B. Knapp.....	384,497	June 12	992	258	43	1317
Ruling-machine.....	J. Schumacher.....	387,012	July 31	2500	656	44	518
Ruling-machine.....	A. Sedgwick.....	387,111	July 31	2632	692	44	543
Ruling-machine.....	A. Sedgwick.....	387,113	July 31	2638	694	44	544
Ruling-machine.....	A. Sedgwick.....	391,278	Oct. 16	1548	410	45	313
Ruling-machine and printing attachment. Combined.....	G. T. Patterson and J. W. Dickieson.....	393,517	Nov. 27	1973	514	45	1003
Ruling machines. Attachment for paper.....	G. Schwemlein.....	394,941	Dec. 18	1882	487	45	1453
Ruling-machines. Ink-feeding device for.....	G. Schwemlein.....	392,138	Oct. 30	2786	756	45	577
Running-gear.....	J. M. Brosius. (Reissue).....	10,922	Apr. 17	1841	487	43	375
Running-gear.....	S. Burdall and C. Thompson.....	376,795	Jan. 24	1504	410	42	322
Running-gear.....	A. T. Diekey.....	389,554	Sept. 18	1141	300	44	1304
Running-gear.....	E. Hickman.....	381,695	Apr. 24	2091	547	43	443
Saccharine liquids. Process of and apparatus for cleaning.....	A. Young.....	387,388	Aug. 7	284	73	44	627
Saccharine solutions. Treating.....	P. Casamajor.....	378,232	Feb. 21	1344	.....	42	775
Sad-iron.....	A. F. Chable.....	377,351	Jan. 31	2367	683	42	481
Sad-iron.....	I. C. H. Gilmore and H. B. Stafford.....	381,006	Apr. 10	1067	283	43	216
Sad-iron.....	P. Michels and J. Kiemmer.....	385,365	July 3	42	13	44	11
Sad-iron.....	W. Milfeil.....	383,404	May 22	2274	604	43	975
Sad-iron.....	W. H. Mull.....	381,572	Apr. 24	1917	505	43	408
Sad-iron.....	G. J. Murdock.....	379,804	Mar. 20	1388	369	42	1246
Sad-iron.....	K. Olp.....	386,259	July 17	1377	363	44	283
Sad-iron.....	T. H. Patterson.....	383,319	May 22	2149	567	43	953
Sad-iron.....	H. S. Pease.....	387,905	Aug. 14	1064	280	44	783
Sad-iron.....	J. S. Sharp and J. D. Luther.....	381,434	Apr. 17	1708	458	43	350
Sad-iron and plate heater.....	B. Shearer.....	384,723	June 19	1323	345	43	1388
Sad-iron heater.....	N. Foreshaw.....	381,468	Apr. 17	1761	471	43	359
Sad-iron heater.....	T. W. McFarland.....	376,782	Jan. 24	1540	405	42	318
Sad-iron. Self-heating.....	G. Heidel.....	379,867	Mar. 20	1513	398	42	1269
Sad-iron with removable handle.....	J. F. Bliss.....	379,044	Mar. 6	268	78	42	1016
Sad-irons. Detachable handle for.....	J. Sabold.....	379,416	Mar. 13	804	216	42	1125
Saddle.....	W. Andrews.....	384,000	June 19	1140	301	43	1353
Saddle.....	D. Underferth.....	3-2,446	May 8	855	218	43	631
Saddle and yoke. Double-harness.....	L. A. Mancini.....	384,703	June 19	1302	340	43	1384
Saddle attachment for harness.....	P. McFadden.....	392,059	Oct. 30	2653	721	45	551
Saddle-bag or satchel.....	J. K. P. Wright.....	394,321	Dec. 11	874	231	45	1248
Saddle. Harness.....	F. Conway.....	395,036	Dec. 25	2027	523	45	1490
Saddle. Harness.....	J. Fischer.....	392,020	Oct. 30	2503	706	45	539
Saddle. Harness.....	W. R. Knowles.....	383,956	June 5	170	50	43	1153
Saddle. Harness.....	A. H. Larkin.....	388,605	Aug. 28	2287	614	44	1032
Saddle. Harness.....	W. M. Lerch.....	375,942	Jan. 3	294	79	42	61
Saddle. Harness.....	S. A. Marker.....	383,741	May 29	2776	731	43	1082
Saddle. Harness.....	J. W. Mitchell.....	380,451	Apr. 3	215	58	43	44
Saddle. Harness.....	A. A. Moss.....	387,248	Aug. 7	72	17	44	585
Saddle. Harness.....	G. Rank.....	381,952	May 1	75	19	43	529
Saddio. Harness.....	F. Rehkopf.....	379,605	Mar. 20	1006	291	42	1187
Saddle. Harness.....	E. G. Robertson.....	393,926	Dec. 4	2-4	77	45	1126
Saddle. Harness.....	E. Vogtsberger.....	393,868	Dec. 4	203	55	45	1110
Saddle-pad.....	J. Morrow.....	383,821	May 29	2019	771	43	1108
Saddle. Riding.....	S. T. Butler.....	387,143	July 31	2696	706	44	552
Saddle. Riding.....	D. R. Lakin.....	389,659	Sept. 18	1319	345	44	1335
Saddle tree. Harness.....	W. S. Everett.....	380,624	Apr. 3	476	134	43	97
Saddle tree. Harness.....	W. M. Lerch.....	375,943	Jan. 3	294	79	42	61
Saddle-trees. Press for forming leather.....	J. M. Fink.....	382,962	May 15	1599	417	43	837
Saddles. Pad-plate for harness.....	F. Rehkopf.....	379,606	Mar. 20	1097	292	42	1187
Safe. Burglar-proof.....	M. S. Goldsmith.....	380,717	Apr. 10	619	170	43	132
Safe. Burglar-proof.....	M. S. Goldsmith.....	391,041	Oct. 16	1216	322	45	250
Safe-fastener.....	L. A. Becht.....	393,229	Nov. 20	1625	427	45	926
Safe-linings, &c. Compound for.....	I. P. Vendell.....	377,343	Jan. 31	2354	.....	42	479
Safe-lock.....	A. G. Burton.....	382,071	May 1	200	77, 78	43	567
Safe-lock.....	A. G. Burton.....	383,040	May 15	1731	450	43	863
Safe-lock.....	A. G. Burton.....	383,041	May 15	1737	451	43	864
Safe-lock.....	W. E. Lee.....	391,056	Oct. 16	1236	329	45	254
Safe-lock.....	G. C. Prescott.....	393,449	Nov. 27	1855	488	45	979
Safe-lock.....	H. Stanynght.....	376,215	Jan. 10	697	185	42	143
Safe-lock.....	J. White.....	381,893	Apr. 24	2398	623	43	501
Safe or vault door lock.....	W. M. Brown, Jr.....	393,883	Dec. 4	222	59, 60	45	1114
Safe. Portable.....	J. J. Schuknecht.....	391,921	Oct. 30	2447	661	45	511
Safe. Provision.....	H. Randol.....	381,721	Apr. 24	2134	559	43	451
Safe. Provision.....	T. G. Rounds.....	389,906	Sept. 25	1693	447	44	1417
Safes and vaults. Operating mechanism for doors of.....	A. Kirks.....	384,262	June 12	633	170	43	1251
Safety-brake.....	H. Brockman.....	376,365	Jan. 10	902	236	42	182

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Safety-pin.....	D. A. Carpenter.....	381,613	Apr. 24	1980	520	43	421
Safety-pin.....	E. B. Clark and N. D. Ingraham.....	386,000	July 10	981	262	44	291
Safety-pin.....	B. J. Greely.....	393,006	Nov. 20	1226	318	45	846
Safety-pin.....	S. A. Haish.....	391,317	Oct. 16	1594	422	45	321
Safety-pin.....	H. C. Henze.....	382,232	May 1	518	133	43	608
Safety-pin.....	W. F. Hyatt.....	375,873	Jan. 3	190	53	42	41
Safety-pin.....	J. Jenkins.....	377,108	Jan. 31	2018	528	42	415
Safety-pin.....	J. Jenkins.....	378,318	Feb. 21	1467	383	42	797
Safety-pin.....	J. Jenkins.....	380,896	Apr. 10	899	240	43	184
Safety-pin.....	F. M. Twitchell.....	381,513	Apr. 17	1831	484	43	373
Safety-pins. Manufacture of.....	B. A. Ballou.....	380,380	Apr. 3	115	33	43	25
Safety-switch.....	J. B. Batt.....	376,177	Jan. 10	645	172	42	135
Safety-switch.....	C. L. Cooke.....	392,907	Nov. 13	1072	278	45	810
Safety-switch.....	W. B. St. Cyr and F. R. McDonald.....	381,034	Apr. 10	1110	297	43	224
Sail-grommet.....	W. W. Wilcox.....	382,921	May 15	1542	404	43	827
Sail-grommet.....	W. W. Wilcox.....	382,922	May 15	1542	404	43	828
Sail-grommet.....	W. W. Wilcox.....	382,923	May 15	1543	404	43	828
Sail-grommets, &c. Punch or die for.....	W. W. Wilcox.....	382,924	May 15	1544	405	43	828
Salesman and change-maker. Automatic.....	G. D. Morse and M. and D. W. Chase.....	388,369	Aug. 21	1829	485	44	937
Saline liquids. Apparatus for purifying and evaporating.....	G. A. Porter.....	390,616	Oct. 2	576	153		
Salol. Manufacturing.....	P. W. Hofmann.....	391,218	Oct. 16	1478	.....	45	304
Salt. Apparatus for manufacturing.....	H. A. Hogel and O. L. F. Browne.....	378,684	Feb. 28	2004	530	42	911
Salt-cellar.....	L. Dart.....	393,324	Nov. 20	1678	442	45	936
Salt-cellar.....	T. A. Mitchell.....	392,652	Oct. 30	2043	719	45	549
Salt-drier.....	C. T. Bartlett.....	384,953	June 26	1658	431	43	1461
Salt-making apparatus.....	R. G. Peters.....	377,268	Jan. 31	2237	591	42	458
Salts of cerium, &c. Obtaining.....	C. A. Von Welsbach.....	377,701	Feb. 7	528	.....	42	594
Salts of tetrazo-ditolyl or diphenyl on dihydroxides of toluene or their sulpho-acids. Action of.....	R. G. Williams.....	394,425	Dec. 11	1026	.....	45	1276
Salve.....	M. E. Austin.....	379,500	Mar. 13	932	.....	42	1149
Salve.....	J. R. Smith.....	385,210	June 26	2054	.....	43	1543
Salve.....	G. H. A. Williams.....	377,592	Feb. 7	337	.....	42	564
Salve. Eye.....	J. R. Brown.....	392,904	Nov. 13	1069	.....	45	809
Sample-book for textile fabrics.....	D. L. Goff.....	395,048	Dec. 25	2042	527	45	1493
Sample-fastener.....	C. Folsom.....	381,769	Apr. 24	2193	573	43	462
Sample-holder.....	J. C. Turner.....	380,002	Mar. 27	1711	458	42	1317
Sampling apparatus. Automatic.....	A. Bradford.....	384,420	June 12	868	226	43	1294
Sand and gravel washer. Combined.....	T. W. Carrico.....	393,295	Nov. 20	1632	430	45	927
Sand-band and wheel-retainer. Combined.....	F. E. Peebles.....	389,319	Sept. 11	796	203	41	1231
Sand-band for vehicles.....	J. J. Botter.....	394,150	Dec. 11	609	163	45	1197
Sand distributor and packer.....	S. L. Robertson.....	375,895	Jan. 3	222	61	42	47
Sand-distributing machine.....	R. Titcomb.....	379,256	Mar. 13	568	158	42	1079
Sand-mill.....	J. T. Demarest.....	387,497	Aug. 7	441	115	44	659
Sand mold.....	S. J. Adams.....	377,009	Jan. 31	1868	492	42	388
Sand molds. Apparatus for withdrawing patterns from.....	S. J. Adams.....	377,004	Jan. 31	1857	491	42	387
Sand molds. Preparing.....	S. J. Adams.....	386,951	July 31	2409	634	44	500
Sand molds. Withdrawing patterns from.....	S. J. Adams.....	377,010	Jan. 31	1870	492	42	388
Sand-paper holder.....	T. L. Prevost.....	378,522	Feb. 28	1765	467	42	865
Sand-sifting machine.....	J. J. Carr.....	378,129	Feb. 21	1174	306	42	744
Sand-trap.....	B. F. Smith.....	382,117	May 1	355	93	43	579
Sanding machine. Street.....	J. B. Kenison.....	393,374	Nov. 27	1751	464	45	959
Sash and frame. Window.....	C. Kruesi.....	383,134	May 22	1885	492	43	903
Sash and shade. Combined window.....	A. Banyer and J. A. Printz.....	394,328	Dec. 11	887	234	45	1251
Sash-balance.....	J. H. Corsbie.....	383,280	May 22	2099	554	43	943
Sash-balance.....	W. D. Cronin and W. R. Moore.....	392,720	Nov. 13	798	203	45	755
Sash-balance.....	C. Fowler.....	390,767	Oct. 9	792	211	45	164
Sash-balance.....	J. H. Jenkins.....	394,698	Dec. 18	1466	383	45	1372
Sash-balance.....	T. Jones.....	380,805	Apr. 10	754	206	43	158
Sash-balance.....	W. C. Merckel.....	384,459	June 12	921	239		
Sash-balance.....	W. C. Merckel.....	395,246	Dec. 25	2372	607	45	1553
Sash-balance.....	H. W. Morgan.....	395,165	Dec. 25	2246	576	45	1530
Sash-balance.....	J. A. Rogers.....	389,248	Sept. 11	693	177	44	1212
Sash-balance.....	F. L. Rosentreter.....	392,071	Oct. 30	2667	725	45	553
Sash-balance.....	T. G. Russell.....	383,414	May 22	2292	608	43	977
Sash-balance.....	J. Sjöström.....	387,662	Aug. 14	705	181	44	715
Sash-balances. Manufacture of.....	S. Palmer.....	378,712	Feb. 28	2039	538	42	917
Sash-cord fastener.....	J. L. Bohannon.....	388,814	Sept. 4	10	3	44	1074
Sash-cord fastener.....	J. H. Jones.....	381,018	Apr. 10	1081	286	43	218
Sash-cord fastener.....	M. H. Kinsley.....	376,314	Jan. 10	833	219	42	168
Sash-cord fastener.....	O. C. Seiter.....	376,349	Jan. 10	881	231	42	178
Sash-cord fastener.....	L. Strasser.....	384,649	June 19	1208	319	43	1367
Sash-cord fastener.....	G. L. Thompson.....	381,728	Apr. 24	2142	561	43	453
Sash-cord guide.....	W. T. Kellogg.....	395,238	Dec. 25	2363	604	45	1550
Sash-cord guide.....	S. Palmer.....	391,817	Oct. 30	2297	623	45	481
Sash-fastener.....	C. J. Anderson.....	375,975	Jan. 3	342	92	42	70
Sash-fastener.....	G. H. Aylworth.....	376,359	Jan. 10	894	234	42	180
Sash-fastener.....	G. H. Aylworth.....	384,553	June 12	1066	278	43	1331
Sash-fastener.....	J. E. Brown.....	381,210	Apr. 17	1375	368	43	283
Sash-fastener.....	L. A. Brown.....	391,685	Oct. 23	2092	567	45	431
Sash-fastener.....	R. Clarke.....	380,424	Apr. 3	171	47	43	35
Sash-fastener.....	G. J. Cline.....	377,990	Feb. 14	976	254	42	698
Sash-fastener.....	W. P. Coldren.....	388,762	Aug. 28	2382	643	44	1050
Sash-fastener.....	O. R. Cooke.....	381,113	Apr. 17	1250	336	43	260
Sash-fastener.....	W. T. Davis.....	376,431	Jan. 17	1001	262	42	207
Sash-fastener.....	A. R. Dickinson.....	385,548	July 3	323	83	41	65
Sash-fastener.....	W. P. Dodson.....	394,962	Dec. 25	1921	496	45	1470
Sash-fastener.....	G. B. French.....	389,213	Sept. 11	626	160	44	1198
Sash-fastener.....	F. A. Henninger.....	385,668	July 3	499	129	44	97
Sash-fastener.....	C. H. Hodgkins.....	392,030	Oct. 30	2605	708	45	542
Sash-fastener.....	H. A. Holt.....	385,461	July 3	192	50	44	38

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Sash-fastener.....	F. J. Hoyt.....	395,274	Dec. 25	2413	618	45	1561
Sash-fastener.....	E. S. Hubbard.....	390,022	Sept. 25	1852	491	44	1449
Sash-fastener.....	K. D. Hughes.....	376,654	Jan. 17	1335	350	42	270
Sash-fastener.....	J. Jackson.....	383,886	June 5	54	17	43	1131
Sash-fastener.....	J. B. Kester.....	377,522	Feb. 7	266	67	42	545
Sash-fastener.....	O. C. Ketting.....	378,794	Feb. 28	2146	567	42	937
Sash-fastener.....	G. D. Loder.....	380,501	Apr. 3	291	85	43	59
Sash-fastener.....	E. W. Luce.....	384,535	June 12	1040	271	43	1326
Sash-fastener.....	N. McIntyre.....	376,252	Jan. 10	749	199	42	154
Sash-fastener.....	H. J. Murphy.....	378,515	Feb. 28	1753	463	42	863
Sash-fastener.....	R. H. North.....	379,242	Mar. 13	532	154	42	1076
Sash-fastener.....	R. H. North.....	391,813	Oct. 30	2291	632	45	480
Sash-fastener.....	G. D. Paul.....	379,124	Mar. 6	381	109	42	1037
Sash-fastener.....	J. S. Peacock.....	387,105	July 31	2623	690	44	541
Sash-fastener.....	J. F. Pool.....	387,809	Aug. 14	916	237	44	755
Sash-fastener.....	J. J. Reed.....	394,936	Dec. 18	1877	485	45	1452
Sash-fastener.....	F. L. Rosentreter.....	379,910	Mar. 20	1573	415	42	1280
Sash-fastener.....	T. S. Smith. (Reissue.)	10,950	July 31	2780	727	44	566
Sash-fastener.....	P. W. Suggs.....	393,728	Nov. 27	2281	598	45	1064
Sash-fastener.....	H. T. Williams.....	380,237	Mar. 27	2041	545	42	1382
Sash-fastener.....	C. Wolcott.....	383,549	May 29	2513	663	43	1025
Sash-fastener.....	W. Yelland, Jr.....	386,678	July 24	1978	532	44	411
Sash fastener and bolder combined	J. D. Axtell.....	378,351	Feb. 21	1518	397	42	807
Sash. Hinged window.....	W. L. Silheresen.....	385,577	July 3	368	96	44	73
Sash-holder.....	R. C. Boekler.....	385,904	July 10	865	228	44	178
Sash-holder.....	I. Brokaw.....	384,007	June 19	1149	304	43	1355
Sash-holder.....	J. Clough.....	392,410	Nov. 6	349	86	45	660
Sash-holder.....	J. W. Cords.....	390,006	Sept. 25	1830	485	44	1445
Sash-holder.....	W. H. Fritz and W. H. George.....	387,509	Aug. 7	462	121	44	663
Sash-holder.....	W. H. Fye.....	394,352	Dec. 11	924	243	45	1258
Sash-holder.....	R. H. Glenn.....	389,217	Sept. 11	630	161	44	1199
Sash-holder.....	J. Hartman, Jr.....	381,131	Apr. 17	1274	341	43	265
Sash-holder.....	F. Haupt.....	393,368	Nov. 27	1744	461	45	957
Sash-holder.....	W. Mathews.....	390,878	Oct. 9	946	250	45	192
Sash-holder.....	C. McIntire.....	391,911	Oct. 30	2435	658	45	509
Sash-holder.....	F. B. Moors.....	381,268	Apr. 17	1465	394	43	300
Sash-holder.....	S. Myers and M. H. Wittel.....	385,368	July 3	44	13	44	11
Sash-holder.....	C. M. Reed.....	393,264	Nov. 20	1585	415	45	918
Sash-holder.....	F. L. Rosentreter.....	379,664	Mar. 20	1175	312	42	1203
Sash-holder.....	G. K. Snyder and C. P. Fisher.....	386,938	July 31	2395	629	44	497
Sash-holder.....	H. A. Williamson.....	391,104	Oct. 16	1307	348	45	267
Sash-holder.....	H. A. Grotholtman.....	390,666	Oct. 9	649	173	45	137
Sash-lift.....	L. F. Blue.....	393,533	Nov. 27	2001	523	45	1009
Sash-lifting hook.....	W. Chisholm.....	391,119	Oct. 16	1323	353	45	269
Sash-lock.....	W. J. Devers.....	391,357	Oct. 16	1650	436	45	331
Sash-lock.....	J. Jackson.....	385,935	July 10	901	240	44	184
Sash-lock.....	G. W. Keeler.....	390,373	Oct. 2	246	66	45	52
Sash-lock.....	C. E. Morton.....	390,507	Oct. 2	439	113	45	89
Sash-lock.....	T. B. Osborne.....	391,384	Oct. 16	1690	447	45	339
Sash lock and fastener.....	H. C. Reynolds.....	381,485	Apr. 17	1786	476	43	364
Sash-pulley case.....	C. S. Wells.....	393,281	Nov. 20	1618	425	45	924
Sash. Tool for grooving window.....	F. V. Phillips.....	393,260	Nov. 20	1579	414	45	917
Sash-weight.....	A. M. Culloch.....	393,060	Nov. 20	1299	338	45	861
Sash-weight.....	M. L. Lissberger.....	379,317	Mar. 13	662	179	42	1096
Sash. Window.....	H. Maennert.....	390,179	Sept. 25	2096	558	44	1499
Sash. Window.....	L. Oppenheim.....	394,003	Dec. 4	389	105	45	1146
Sashes, &c. Fastener for.....	D. G. Anderson and J. P. Roberts.....	392,000	Oct. 30	2563	695	45	533
Satchel.....	D. S. Hammond, Jr.....	394,487	Dec. 11	1107	288	45	1291
Saucepan.....	A. W. Obermann.....	393,625	Nov. 20	1251	324	45	851
Saw.....	W. Bundy.....	388,830	Sept. 4	17	6	44	1076
Saw.....	W. Bundy.....	388,831	Sept. 4	18	6	44	1076
Saw.....	W. Bundy.....	388,832	Sept. 4	19	6	44	1076
Saw.....	A. C. Burner.....	392,534	Nov. 6	525	131	45	695
Saw.....	W. C. Gray.....	391,843	Oct. 30	2338	633	45	488
Saw.....	L. Lehman.....	378,203	Feb. 21	1287	340	42	765
Saw.....	H. C. Palmer.....	379,719	Mar. 20	1361	336	42	1221
Saw.....	J. J. Ralya.....	381,814	Apr. 24	2258	590	43	475
Saw.....	J. J. Ralya and S. L. Heinold.....	388,305	Aug. 21	1724	461	44	920
Saw.....	F. Stephens.....	394,222	Dec. 11	722	192	45	1217
Saw.....	A. Weymar.....	385,079	June 26	1867	477	43	1504
Saw and planer. Combined.....	H. F. Burkhardt.....	375,730	Jan. 3	14	4	42	6
Saw-bench gage.....	F. E. Farwell.....	378,924	Mar. 6	89	26	42	984
Saw. Circular.....	D. N. Hurd.....	381,979	June 26	1693	440	43	1469
Saw-clamp.....	C. F. Leopold.....	377,946	Feb. 14	920	238	42	687
Saw cleaner. Cotton-gin gang.....	J. M. Jacob.....	389,388	Sept. 11	839	234	44	1251
Saw. Crosscut.....	P. Jacobus.....	377,521	Feb. 7	266	67	42	545
Saw. Drag.....	R. Deak.....	381,830	Apr. 24	2298	598	43	481
Saw. Drag.....	J. Harrigan.....	390,364	Oct. 2	237	63	45	49
Saw. Drag.....	J. B. Lalonde.....	387,522	Aug. 7	479	126	44	666
Saw. Drag.....	J. Winger and J. W. Barger.....	392,392	Nov. 6	322	80	45	655
Saw-file-adjusting weight.....	W. Moore.....	377,528	Feb. 7	273	69	42	517
Saw filer, gage, and gummer. Combined.....	G. S. Jones.....	377,677	Feb. 7	491	127	42	588
Saw filing and setting machine.....	W. H. Beardsley and B. Perry.....	387,337	Aug. 7	205	54	44	610
Saw filing and setting machine.....	A. Tischer.....	390,532	Oct. 2	475	124	45	96
Saw-filing device.....	E. D. Eaton.....	384,829	June 19	1482	387	43	1419
Saw-filing machine.....	H. L. Bump.....	381,610	Apr. 24	1975	519	43	420
Saw-filing machine.....	D. W. Johns.....	381,249	Apr. 17	1440	387	43	295
Saw-filing machine.....	W. J. Lindsay.....	392,738	Nov. 13	827	210	45	766
Saw-filing machine.....	S. C. Rogers. (Reissue.)	10,937	June 5	579	157	43	1234
Saw-filing machine.....	E. Tydes.....	378,060	Feb. 14	1069	280 281	42	715
Saw-filing machine. Automatic.....	C. F. Hax.....	393,901	Dec. 4	251	67,68	45	1120
Saw-filing machine. Band.....	A. S. Dunn.....	383,944	June 5	153	45	43	1149
Saw. Fire-wood drag.....	G. H. Branson.....	385,997	July 10	978	261	44	200

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Saw-frame .....	C. Tenney .....	390,996	Oct. 9	1130	299	45	226
Saw-frame hanger .....	C. E. Hewett .....	389,470	Sept. 11	1015	271	44	1273
Saw-grinding machine. Shingle .....	F. Challoner .....	379,632	Mar. 20	1133	300	42	1194
Saw-guide .....	D. Fraser .....	394,110	Dec. 4	545	146	45	1175
Saw-guide .....	A. House .....	379,165	Mar. 6	431	122	42	1043
Saw-guide .....	J. W. Maxwell .....	384,773	June 19	1393	364	43	1103
Saw-guide .....	J. O. Morrow .....	381,635	Apr. 24	2007	526 527	43	426
Saw-guide .....	J. S. Robinson .....	381,423	Apr. 17	1690	453	43	346
Saw-guide .....	G. F. Striegel .....	380,828	Apr. 10	786	215	43	164
Saw-guide .....	B. F. Viquesney .....	389,179	Sept. 4	580	146	44	1179
Saw-guide. Adjustable .....	D. J. Murray .....	385,131	June 26	1942	496	43	1520
Saw-gummer .....	O. H. Burdett .....	390,563	Oct. 2	518	136	45	106
Saw-gummer .....	J. P. and N. Romer .....	383,191	May 22	1959	513	43	917
Saw-handle .....	J. Beaulieu .....	384,500	June 12	997	259	43	1318
Saw-handle .....	G. N. Clemson .....	385,844	July 10	764	201	44	155
Saw-handle .....	G. E. Siebler .....	383,376	May 22	2225	590	43	966
Saw-handle attachment .....	L. T. Blegen .....	384,741	June 19	1347	352	43	1393
Saw-handle. Crosscut .....	H. L. Kincaid .....	381,796	Apr. 24	2232	584	43	469
Saw-handles. Machine for forming .....	C. L. S. Walker .....	382,064	May 1	280	74	43	565
Saw-hanging device for gang-saws .....	W. M. Wilkin .....	389,126	Sept. 4	489	125	44	1164
Saw holder. Circular .....	J. Slater .....	381,651	Apr. 24	2026	531	43	430
Saw-jointer .....	C. R. Black .....	381,207	Apr. 17	1373	367	43	283
Saw-jointer .....	R. E. Poindexter .....	377,328	Jan. 31	2329	676	42	474
Saw-jointer .....	D. C. Robinson .....	382,327	May 8	672	170	43	646
Saw jointer and gage. Combined .....	W. S. Ralya .....	385,006	June 26	1749	452	43	1481
Saw machine. Band .....	P. Kettenring .....	390,083	Sept. 25	1956	520	44	1471
Saw machine. Upright .....	G. Philion .....	383,246	May 22	2040	535	43	933
Saw-mill .....	W. Gowen .....	383,461	May 29	2366	629 630	43	999
Saw-mill .....	H. P. Heacock .....	395,051	Dec. 25	2045	528	45	1493
Saw-mill .....	H. McEvilla .....	377,630	Feb. 7	419	106 107	42	575
Saw-mill .....	S. F. Moore and J. C. Miller .....	388,902	Sept. 4	146	39	44	1100
Saw-mill .....	E. C. Wiley .....	391,444	Oct. 23	1773	474	45	363
Saw mill. Band .....	E. W. Avery .....	381,977	May 1	123	28 29 30	43	537
Saw mill. Band .....	H. R. Barnhurst .....	384,112	June 5	390	110	43	1195
Saw mill. Band .....	W. M. Dickerson .....	381,466	Apr. 17	1756	470	43	358
Saw mill. Band .....	W. Gillis .....	384,252	June 12	621	167	43	1249
Saw mill. Band .....	W. Gowen .....	383,458	May 29	2358	628	43	997
Saw mill. Band .....	W. Gowen .....	383,459	May 29	2363	628 629	43	998
Saw mill. Band .....	D. B. Hanson .....	390,227	Oct. 2	51	14	45	14
Saw mill. Band .....	W. F. Parish .....	388,069	Aug. 21	1328	359 360	44	844
Saw mill. Band .....	F. S. Smith and T. Kelly .....	381,726	Apr. 24	2140	560	43	452
Saw mill. Band .....	T. S. Wilkin .....	393,802	Dec. 4	94	27	45	1091
Saw-mill carriage .....	J. A. Hauser .....	391,046	Oct. 16	1225	325	45	252
Saw-mill carriage .....	G. M. Hinkley .....	378,683	Feb. 28	2003	529 530	42	910
Saw-mill carriage .....	D. C. Prescott .....	376,678	Jan. 17	1370	360	42	276
Saw-mill carriage .....	D. C. Prescott .....	385,523	July 3	286	73	44	58
Saw-mill carriage .....	S. R. Smith .....	376,050	Jan. 3	451	120	42	90
Saw-mill carriages. Automatic offset for .....	W. Gowen .....	383,437	May 29	2356	627	43	997
Saw-mill carriages. Feed mechanism for .....	A. E. Hoffman .....	379,163	Mar. 6	428	121	42	1047
Saw-mill carriages. Feed mechanism for .....	A. Schnier and S. R. Smith .....	377,469	Feb. 7	184	43	42	531
Saw-mill carriages. Offset mechanism for .....	D. C. Prescott .....	378,717	Feb. 28	2045	540	42	918
Saw-mill carriages. Offset mechanism for .....	G. Rosenberg .....	393,927	Dec. 4	286	77	45	1126
Saw-mill carriages. Offsetting mechanism for .....	W. Gowen .....	383,460	May 29	2365	629	43	999
Saw-mill carriages. Steam-feed for .....	J. B. St. Louis .....	376,169	Jan. 10	636	170	42	133
Saw-mill dog .....	M. J. Anderson and B. J. Smith .....	384,228	June 12	583	159	43	1243
Saw-mill dog .....	W. H. Bennett .....	379,440	Mar. 13	834	225	42	1131
Saw-mill dog .....	O. D. Gordon and J. C. Lucia .....	391,603	Oct. 23	1987	535	45	409
Saw-mill dog .....	J. B. McRae .....	388,989	Sept. 4	265	70	44	1124
Saw-mill dog .....	J. H. Miner .....	380,916	Apr. 10	922	247	43	189
Saw-mill dog .....	R. F. and J. H. Redick .....	382,555	May 8	1029	262	43	716
Saw-mill dog .....	W. S. Reeder .....	377,911	Feb. 14	863	222	42	675
Saw-mill dog .....	T. S. Wilkin .....	394,045	Dec. 4	453	122	45	1158
Saw-mill-feed device .....	W. H. Gibbes, Jr. .....	376,592	Jan. 17	1226	323	42	540
Saw-mill feed mechanism .....	A. P. Gibson .....	386,195	July 17	1261	336 337	44	262
Saw mill. Gang .....	W. F. Parish .....	379,657	Mar. 20	1165	308 309	42	1201
Saw mill. Gang .....	W. M. Wilkin .....	380,235	Mar. 27	2038	544	42	1381
Saw mill. Gang .....	W. M. Wilkin .....	380,236	Mar. 27	2039	544 545	42	1381
Saw-mill head-block .....	I. Swank .....	383,600	May 29	2567	620	43	1038
Saw-mill head-block .....	F. P. Ziegler .....	387,030	July 31	2521	662 663	44	522
Saw-mill set-works .....	W. A. Campbell .....	375,890	Jan. 3	104	30	42	24
Saw-mill set-works .....	J. B. Stanwood and P. P. Lane .....	379,998	Mar. 27	1701	454	42	1315
Saw-mill set-works. Ratchet mechanism for .....	W. F. Parish .....	379,656	Mar. 20	1163	307 308	42	1200
Saw-mill stock-roller .....	W. A. Campbell .....	375,891	Jan. 3	106	31	42	25
Saw mills. Automatically-adjustable press-roll for gang .....	F. O. Kilgore .....	389,816	Sept. 18	1536	407	44	1380
Saw-mills. Log-carriage for .....	W. T. Smith .....	390,725	Oct. 2	461	119	45	93
Saw-mills. Log-holding car and clamp for .....	W. J. Perkins .....	391,269	Oct. 16	1534	407	45	310
Saw-mills or other machines. Feed mechanism for carriages of .....	N. Hoffmann. (Reissue) .....	10,968	Nov. 27	2290	601	45	1066
Saw-mills. Reversing-gear for .....	E. N. Collett .....	381,215	Apr. 17	1382	369	43	285
Saw-plates. Manufacture of .....	W. H. Singer .....	390,809	Oct. 9	849	226	45	174

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Saw-rod	J. M. Koeberle	388,779	Aug. 28	2410	650	44	1055
Saw. Scroll	H. L. Beach	381,751	Apr. 24	2170	568	43	458
Saw-set	E. Curtiss	392,542	Nov. 6	536	135	45	697
Saw-set	H. Gates	389,644	Sept. 18	1296	339	44	1330
Saw-set	S. Hargrave, Sr.	377,853	Feb. 14	778	199	42	658
Saw-set	W. H. Nelson	378,017	Feb. 14	1016	265	42	705
Saw-set	J. E. Whiting	392,388	Nov. 6	318	79	45	654
Saw-set and punch. Combined	W. G. Avery	387,133	July 31	2685	704	44	549
Saw-set gage	H. L. Kincaid	392,436	Nov. 6	384	94	45	666
Saw-setting device	W. T. Slicer	382,116	May 1	353	93	43	579
Saw-setting device	C. C. Taintor	390,718	Oct. 9	724	190 191	45	152
Saw-setting machine	W. S. Smith	381,094	June 5	367	104	43	1191
Saw sharpening and gumming machine	J. Mealey	391,176	Oct. 16	1404	375	45	285
Saw-sharpening device	G. W. Amesbury	378,277	Feb. 21	1410	369	42	786
Saw-sharpening machine	A. Blackmer	385,693	July 10	540	141	44	113
Saw-sharpening machine	W. H. Halladay	381,775	Apr. 24	2200	576	43	464
Saw-sharpening machine	R. M. Pine	385,004	June 26	1745	451	43	1480
Saw-sharpening machines. Saw-feeding device for	E. B. Rich	392,225	Nov. 6	71	17, 18	45	608
Saw-swage	S. Hill	380,758	Apr. 10	686	190	43	146
Saw-swage	J. H. Miner	381,633	Apr. 24	2005	526	43	425
Saw-swage	R. B. Richer and O. A. Adams	388,221	Aug. 21	1586	422	44	891
Saw-swage	H. W. Williams	376,128	Jan. 10	574	153 151	42	121
Saw swage and sharpener	W. H. Williams	385,290	June 26	2186	559	43	1568
Saw-swaging device	L. O. Harris	394,570	Dec. 18	1250	329	45	1334
Saw-swaging device	W. T. Merrill and J. Laughton	393,256	Nov. 20	1574	412	45	916
Saw-swaging device	C. A. Schoessel	381,851	Apr. 24	2335	605	43	488
Saw-swaging machine	A. S. Parke	390,894	Oct. 9	969	256	45	196
Saw-table gage	H. L. Beach	381,752	Apr. 24	2172	568	43	458
Saw-teeth. Machine for swaging	J. F. Tidell	382,062	May 1	277	73	43	564
Saw-tooth	E. Harris	381,011	Apr. 10	1073	285	43	217
Saw-tooth. Inserted.	F. W. Cook	383,103	May 22	1838	481	43	893
Saw-tooth swage	J. B. Rhodes	382,325	May 8	671	169	43	646
Saw. Tree-felling	W. A. Van Benthuyzen	385,488	July 3	234	60, 61	44	46
Saw wheel. Band	R. H. Trumbull	389,723	Sept. 18	1415	369	44	1355
Saw. Wood	A. G. Langlot	378,510	Feb. 28	1748	462	42	861
Saws. Bench for circular	F. E. Farwell	380,560	Apr. 3	387	110	43	79
Saws. Device for dressing and jointing the teeth of	W. M. Green	376,647	Jan. 17	1327	348 349	42	268
Saws. Device for dressing the teeth of	W. C. Yeomans	388,805	Aug. 28	2444	659	44	1062
Saws. Device for jointing and sharpening	H. W. Georgia and E. Andrews	382,467	May 8	892	228	43	687
Saws. Device for setting, gaging, &c., the teeth of	W. N. Harsen	387,875	Aug. 14	1013	264	44	774
Saws. Device for side-dressing	G. Glass	384,149	June 5	455	125 126	43	1208
Saws. Device for side-dressing the teeth of	H. W. Williams	383,931	June 5	135	39	43	1147
Saws. Feed for stone	N. McIntyre	376,251	Jan. 10	748	198 199	42	153
Saws. Fence for	C. Seymour	378,939	Mar. 6	112	32	42	988
Saws. Guide for circular	J. S. Marshall	378,513	Feb. 28	1751	463	42	862
Saws. Handle for crosscut	M. Bennett	375,916	Jan. 3	252	69	42	53
Saws. Handle for crosscut	C. Eisenhardt	395,218	Dec. 25	2336	598	45	1545
Saws. Insertible tooth for circular	W. Cocker and C. S. Hurst	388,950	Sept. 4	215	57	44	1113
Saws. Machine for grinding shingle	W. H. Hall	379,108	Mar. 6	363	103 104	42	1034
Saws, &c. Machine for sharpening	C. S. Farrar	384,613	June 19	1157	306	43	1356
Saws. Machine for straightening and hammering	M. Covel	380,865	Apr. 10	845	228	43	174
Saws. Machine for truing the teeth of	R. Gaskin, Jr.	383,720	May 29	2752	725	43	1077
Saws. Milling-machine for scarfing the ends of band	A. D. Catlin	377,707	Feb. 7	535	137	42	595
Saws. Oiling attachment for hand	J. D. Martin	389,399	Sept. 11	911	238	44	1253
Saws. Side dresser for	C. E. Cleveland and J. Hansou	380,669	Mar. 27	1840	490	42	1342
Sawdust or similar filtering substances. Apparatus for cleansing and recovering	P. Casamajor	394,956	Dec. 25	1809	494	45	1467
Sawing apparatus	J. S. Hendrickson	388,039	Aug. 21	1285	348	44	895
Sawing attachment for shapers	G. M. Cobb	394,338	Dec. 11	904	238	45	1254
Sawing-machine	J. N. Britz	394,455	Dec. 11	1064	277	45	1283
Sawing-machine	G. Constable	390,456	Oct. 2	360	94	45	75
Sawing-machine	W. A. Dewberry	389,386	Apr. 3	122	36	43	26
Sawing-machine	J. B. Ellis	393,502	Nov. 27	1944	509	45	996
Sawing-machine	G. A. Jackson	393,371	Nov. 27	1747	462 463	45	958
Sawing-machine	W. P. Langley	387,648	Aug. 14	659	177	44	711
Sawing-machine	G. McCormick	385,469	July 3	293	53	44	41
Sawing-machine	W. E. Patterson	385,821	July 10	730	191	41	150
Sawing-machine	C. W. Trowbridge	390,628	Oct. 2	595	157 158	45	119
Sawing-machine	C. M. Young	380,073	Mar. 27	1813	484	42	1337
Sawing-machine. Band	C. Bryant	380,857	Apr. 10	831	226	43	172
Sawing-machine. Circular	A. D. Catlin	377,708	Feb. 7	538	137	42	595
Sawing-machine. Circular	H. M. Darling	389,061	Sept. 4	371	97	41	1143
Sawing-machine. Circular	F. E. Farwell	386,806	July 31	2172	573	41	456
Sawing-machine. Circular	J. W. Frank	382,061	May 1	311	81	43	570
Sawing-machine. Circular	R. R. Ripley	384,176	June 5	497	136	43	1217
Sawing-machine. Circular gang	T. Manley	386,147	July 17	1202	319 320	44	251
Sawing-machine. Cut-off	J. W. Surprenant and J. E. Ferguson	391,344	Oct. 16	1630	431 432	45	328
Sawing-machine. Drag	G. A. Hughes	392,561	Nov. 6	559	141	45	702
Sawing-machine. Power-feed	G. B. Durkee	383,112	May 22	1854	485	43	897
Sawing-machine. Rail	E. C. Smith	375,959	Jan. 3	315	84	42	65
Sawing-machine. Scroll	C. B. Van Coughnet	392,083	Oct. 30	2685	731	45	557
Sawing-machine. Wood	F. W. Olds	382,723	May 15	1276	334 335	43	772
Sawing machines. Clamp for wood	J. Wilson	375,909	Jan. 3	241	66	42	51

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Scaffold and elevator. Combined	R. H. Smith	388,924	Sept. 4	175	46	44	1106
Scaffold and fire-escape. Convertible	L. Maurer	394,781	Dec. 18	1611	423	45	1403
Scaffold and staging	N. Stadler	382,245	May 1	536	137	43	612
Scaffold-bracket	W. H. Higgins	393,560	Nov. 27	2033	532	45	1016
Scaffold-bracket	J. A. Long	393,512	Nov. 27	1965	512	45	1001
Scaffold. Builder's	E. S. Moss	378,102	Feb. 21	1133	296 297	42	736
Scaffold for wooden buildings	C. W. Randall and J. H. Smith	382,901	May 15	1515	397	43	822
Scaffold-holder	W. J. Blundell	391,111	Oct. 16	1413	350	45	268
Scaffold. Painter's	M. Lacy	383,471	May 29	2388	635	43	1003
Scaffold. Swinging	A. Nell and M. Moll	391,854	Oct. 30	2352	638 639	45	491
Scaffolding	H. Bradds	380,546	Apr. 3	365	104	43	75
Scaffolding	D. S. Fisher	380,254	Mar. 27	2061	551	42	1387
Scaffolding	O. G. Nosker	391,182	Oct. 16	1412	377	45	287
Scale and coin-tester. Letter	E. Knight	388,138	Aug. 21	1460	392	44	868
Scale and register. Grain	L. Reynolds	376,044	Jan. 3	444	118	42	89
Scale. Automatic coin-controlled ticket-printing? weighing-	E. H. Amet	387,842	Aug. 14	965	250 251 252	44	765
Scale. Automatic grain	C. B. Foreward	377,606	Feb. 7	384	97, 98 400	42	568
Scale. Automatic grain	J. Guidinger	378,363	Feb. 21	1531	401	42	810
Scale. Automatic grain	C. J. Hartley	379,954	Mar. 27	1637	436	42	1302
Scale. Automatic grain	G. P. and R. B. Jameson	395,057	Dec. 25	2060	531	45	1498
Scale. Automatic grain	C. A. Lieb	377,433	Feb. 7	139	29, 30 361	42	519
Scale. Automatic grain	M. E. Reisert	376,679	Jan. 17	1373	362	42	277
Scale. Automatic grain	T. J. Underwood	389,864	Sept. 18	1627	430	44	1397
Scale. Automatic weighing and recording	E. H. Amet	380,672	Apr. 10	557	153 154	43	121
Scale-beam	W. W. Reynolds	383,912	June 5	100	30	43	1140
Scale-beam	A. H. Smith	381,087	Apr. 10	1305	323	43	242
Scale-beams. Lever foot and fulcrum of	J. J. Clarke	376,513	Jan. 17	1121	293	43	229
Scale. Coin-controlled electrical weighing	W. R. Smith and A. L. Washburn	392,698	Nov. 13	767	194	45	748
Scale. Coin-controlled weighing	G. P. Hill and A. L. Washburn	389,223	Sept. 11	646	165 166	44	1202
Scale. Coin-controlled weighing	J. Moss	387,565	Aug. 7	564	147	44	681
Scale. Counter	J. B. Butenschon	381,673	Apr. 24	2062	539	43	437
Scale-divider and section-liner	A. C. Both	393,290	Nov. 20	1627	427	45	926
Scale. Electro-magnetic grain-weighing	W. A. Holley and U. Malin	377,383	Feb. 7	26	8	42	500
Scale for liquids. Automatic weighing	P. Whiteck	382,849	May 15	1441	379	43	807
Scale for railway-cars. Weighing	E. Duplessis	382,412	May 8	802	205	43	672
Scale for weighing cars and recording the weights. Automatic	E. H. Amet	392,531	Nov. 6	518	130	45	694
Scale for weighing grain	J. Dable	377,292	Jan. 31	2278	602	42	466
Scale. Grain, flour, and feed	J. B. Dutton	387,154	July 31	2708	710	44	554
Scale. Grain-weighing	H. Cutler	393,888	Dec. 4	230	61, 62	45	1116
Scale. Logarithmic sliding	W. Hart	387,070	July 31	2579	679	41	533
Scale. Micrometer	E. Jones	380,589	July 24	1856	490	41	387
Scale-pan	H. J. Henrichson	384,256	June 12	625	168	42	1250
Scale. Platform	W. C. Kelly	381,931	May 1	45	13	43	523
Scale. Platform weighing	H. Paddock	376,042	Jan. 3	441	117	42	89
Scale. Pocket weighing	W. H. Watt	379,746	Mar. 20	1297	346	42	1328
Scale. Prescription-weighing	C. H. Fitch	384,247	June 12	613	165	43	1248
Scale. Recording weighing	C. Dornbusch	393,299	Nov. 20	1637	431	45	928
Scale. Recording weighing	W. E. Selleck	378,557	Feb. 28	1820	480	42	875
Scale. Recording weighing	W. E. Selleck	393,398	Nov. 27	1733	471	45	965
Scale. Registering and recording weighing	E. G. Fisher	383,451	May 29	2344	623 624	43	994
Scale. Spring	J. H. Nolan	393,340	Nov. 20	1696	448	45	940
Scale. Spring	T. B. Salter and J. Hughes	390,522	Oct. 2	458	119	45	93
Scale. Weighing	A. H. Deike	392,995	Nov. 20	1214	315	45	843
Scale. Weighing	T. H. Herndon	389,076	Sept. 4	331	102	41	1148
Scale. Weighing	C. A. Lieb and E. Lavens	392,617	Nov. 13	655	164	45	726
Scale. Weighing	M. E. Lloyd	378,698	Feb. 28	2021	534	42	914
Scale. Weighing	A. Taylor	387,931	Aug. 14	1118	297 298	44	794
Scale. Weighing	W. C. Thomson	376,925	Jan. 21	1748	460	42	356
Scale. Weighing	A. Turnbull	378,382	Feb. 21	1556	407	42	815
Scale. Weighing and price	J. E. Pitrat	385,005	June 26	1746	451 452	43	1480
Scales for weighing railway-cars	J. W. Ballard and H. L. Fisher	384,495	June 12	970	253	43	1313
Scales. Price-indicator for weighing	C. P. Lancaster	385,635	July 3	458	118	44	80
Scales. Signaling attachment for weighing	E. H. Amet	391,831	Oct. 30	2318	629	45	485
Scales. Weight-recorder for weighing	J. A. Jamieson	385,310	June 26	2216	568	43	1574
Scallop-turner	W. D. Hall	391,144	Oct. 16	1357	362	45	276
Scarf-holder	T. N. Myrick	389,317	Sept. 11	794	202	44	1931
Scarf. Neck	L. Eschner	385,922	July 10	882	233	41	181
Scarf. Neck	M. C. McDonald	377,570	Feb. 7	327	84	42	558
Scarf. Neck	J. J. Roche	377,690	Feb. 7	513	131	42	592
Scarf. Neck	G. Selowsky	379,182	Mar. 6	149	126	42	1052
Scarf. Neck	M. Wald	375,967	Jan. 3	330	88	42	68
Scarf. Neck	W. I. Weinberg	384,484	June 12	951	246	43	1310
Scarf-neckband tip	L. C. F. Frees	390,472	Oct. 2	389	99	45	80
Scarf-neckbands. Leader for	M. D. Levy	388,983	Sept. 4	260	69	44	1123
Scarf tip and fastener. Combined	A. L. Seibert	391,562	Oct. 23	1931	520	45	398
Scarf tip and fastener. Combined	E. D. Smith	391,657	Oct. 23	2058	557	45	424
Scenery. Stage	M. C. Sherwood	389,414	Sept. 11	937	245	44	1258
Scholar's companion	T. G. Cockings and J. J. Mulvaney, Jr.	387,210	Aug. 7	21	4	44	576
School seat and desk. Combined	A. Landon	385,864	July 10	798	212	41	163
Scissors	R. Askey	392,395	Nov. 6	328	81	45	656
Scissors and file. Combined	C. P. Hawley	376,596	Jan. 17	1231	324	42	251



## Alphabetical list of inventions—Continued.

Invention.	Name.	No	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Scissors. Button-hole	L. C. McNeal	382,996	May 15	1648	431	43	847
Scissors-clasp	W. H. Harkness and F. E. Fessenden.	390,228	Oct. 2	52	14	45	14
Scissors. Pocket.	A. Pauls	377,637	Feb. 7	430	110	42	577
Scissors, &c. Spring for.	F. C. Altmann	382,502	May 8	946	240	43	699
Scoop. Coal.	F. B. Barrows	376,424	Jan. 17	991	259	42	205
Scoop. Corn.	J. A. Johnson	388,687	Aug. 28	2275	610	44	1029
Scoop. Crumb or dust.	J. Pusey	387,734	Aug. 14	817	211	44	735
Scoop. Wire	L. H. Sholder	384,090	June 5	363	103	43	1191
Scoops, &c. Bag-opening attachment for	P. Pease	379,491	Mar. 13	915	246	42	1146
Scoops or shovels. Apparatus for forming wooden.	G. Van Riper	390,725	Oct. 9	732	192 193	45	153
Scourer:							
See Grain-scourer.							
Scow	F. A. Lockwood	386,712	July 21	2023	533	45	419
Scow. Dumping.	J. S. Rogers	391,080	Oct. 16	1271	338	45	260
Scraper	J. C. Pequinot	385,003	June 26	1743	451	43	1479
Scraper and grader. Reversible road.	H. D. Cook	378,932	Mar. 6	86	25	42	983
Scraper and grader. Road.	W. J. Martin	377,082	Jan. 31	1973	518	42	407
Scraper. Ditching and grading	L. E. Ashley	376,022	Jan. 3	414	109 110	42	82
Scraper. Earth.	J. D. Brinard	378,571	Feb. 28	1841	486	42	879
Scraper. Earth.	W. E. Kilborn	377,523	Feb. 7	267	67	42	546
Scraper. Earth.	C. G. Peterson and C. V. Rundblad	376,753	Jan. 24	1485	391	42	307
Scraper. Earth.	G. Wilkinson and J. McCourt	380,374	Apr. 3	105	31	43	23
Scraper for railways. Truck.	H. M. Littell. (Reissue)	10,895	Jan. 24	1854	489	42	377
Scraper. Platform.	D. M. Denchy and H. W. Childs	380,024	Mar. 27	1749	467	42	1323
Scraper. Road.	H. L. Jacobs and T. H. Stagg	393,434	Nov. 27	1834	483	45	974
Scraper. Road.	G. N. Miller	392,965	Nov. 13	1155	300 301	45	825
Scraper. Road.	G. N. Miller and O. E. Moats	383,751	May 29	2796	735	43	1085
Scraper. Road.	H. O. Hare	392,567	Nov. 6	570	113	45	704
Scraper. Road.	F. M. Pennock and G. Webster	389,897	Sept. 25	1650	444	44	1114
Scraper. Road.	J. D. S. Reed	383,068	May 15	1779	460	43	872
Scraper. Road.	J. H. Wiles	391,498	Oct. 23	1847	494	45	379
Scraper. Road.	J. W. Yates and S. I. Bailor	388,944	Sept. 4	209	55	44	1112
Scraper. Truck.	H. H. Littell	385,062	June 26	1844	472	43	1499
Scraper. Wheel.	C. H. Sawyer	380,354	Apr. 3	76	24, 25	43	18
Scraper. Wheeled.	P. Deevy	380,314	Apr. 3	11	3	43	4
Scraper. Wheeled.	C. H. Sawyer	389,251	Sept. 11	697	177 178	44	1213
Scraper. Wheeled dumping.	C. A. Kenney	390,374	Oct. 2	246	67	45	52
Scrapping and ditching machine. Road	F. M. Pennock	390,035	Sept. 25	1874	496	44	1453
Scrapping machine. Road.	W. F. Wellman	381,867	Apr. 24	2357	611 612	43	492
Screen:							
See Adjustable screen. Photographic head.							
Door and window screen.	Insect-screen.						
Extension-screen.	Vignetting-screen.						
Fire-screen.	Window-screen.						
Folding screen.	Wire screen.						
Screen	J. P. Harrison	376,436	Jan. 17	1008	264	42	209
Screen	W. J. Quarry	393,175	Nov. 20	1450	378	45	891
Screen	D. Wesemann	383,510	May 29	2448	619	43	1014
Screen for windows, doors, &c	J. Haish	376,881	Jan. 24	1692	442	42	345
Screen or door for obstructing the passage of flame.	M. B. Feecey	384,141	June 5	413	122 123	43	1206
Automatic							
Screens, grates, and panels. Construction of	J. Burkhardt	378,415	Feb. 21	1696	422	42	825
Screening. Machine for making slashed metallic.	J. F. Golding	381,231	Apr. 17	1407	377 318	43	289
Screw	J. P. A. Hanlon	379,200	Mar. 6	479	125	42	1057
Screw	L. H. Palmer	378,614	Feb. 28	1896	502	42	891
Screw	R. Stilwell	383,831	May 29	2937	776	43	1111
Screw and making the same. Rolled-headed wood.	H. A. Harvey	377,453	Feb. 7	158	37	42	525
Screw-blanks. Machine for making	C. D. Rogers	386,091	July 10	1111	297 298	41	226
Screw-blanks. Machine for making	C. D. Rogers	389,169	Sept. 4	562	141 112	44	1175
Screw-bolts. Machine for finishing heads of	C. D. Rogers	376,416	Jan. 10	969	253 254	42	194
Screw-clamp	J. Mooney	378,896	Mar. 6	51	15	42	977
Screw. Clamp.	P. A. Whitney	388,007	Aug. 14	1232	334	41	813
Screw-conveyer	L. Rossler	376,552	Jan. 17	1171	308	42	249
Screw. Countersinking.	J. T. Rider	388,000	Aug. 14	1221	331	44	816
Screw-cutting die	P. A. Anderson	382,933	May 15	1557	407	43	830
Screw-cutting die	J. M. Carpenter	391,510	Oct. 23	1862	499	45	343
Screw-cutting die	E. J. Herman	377,614	Feb. 7	396	100	42	570
Screw-cutting die	F. I. Maule	380,908	Apr. 10	911	245	43	187
Screw-cutting die	T. S. Wilkin	393,282	Nov. 20	1621	425	45	925
Screw-cutting die	A. Wirsching	389,627	Sept. 18	1256	329	41	1324
Screw-cutting die and stock	P. Grabler	383,354	May 22	2197	580	43	962
Screw-cutting die and stock	B. Oehnen	386,842	July 31	2255	593	41	469
Screw-cutting die-head.	J. A. Becher	389,433	Sept. 11	959	251	41	1263
Screw-cutting die-head.	J. A. Becher	389,434	Sept. 11	960	251	41	1263
Screw-driver	M. Cashin	391,880	Oct. 30	2387	647	45	499
Screw-driver	F. Chantrell	393,419	Nov. 27	1817	479	45	971
Screw-driver	F. Chantrell	393,430	Nov. 27	1818	480	45	971
Screw-driver	F. Chantrell	393,431	Nov. 27	1819	480	45	972
Screw-driver	G. E. Gay and J. H. Parsons	387,469	Aug. 7	309	79	41	632
Screw-driver attachment	L. Kiblinger	384,043	June 5	302	85	41	1178
Screw-drivers, bits, &c. Brace for	G. W. Huber	385,414	July 3	123	33	41	26
Screw-eye. Reversible	C. O. Marley	377,611	Feb. 7	391	99	42	570
screw-heads. Die for forming	C. D. Rogers	389,166	Sept. 4	554	140	44	1174

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Di.	Vol.	Page.
Screw-heads. Die for forming	C. D. Rogers	389,167	Sept. 4	556	140	44	1174
Screw-holder, screw-driver, and countersink. Combined	J. C. Trovillion	382,670	May 8	1204	312	43	750
Screw-jack	J. O. Joyce	390,605	Oct. 2	565	150	45	114
Screw-machine. Metal	J. B. Clyde	376,942	Jan. 24	1771	465	42	361
Screw-nail. Wire	H. A. Harvey	377,452	Feb. 7	158	36	42	525
Screw-press	A. Hille	391,146	Oct. 16	1359	363	45	277
Screw-press	C. W. Metcalfe	391,177	Oct. 16	1405	375	45	286
Screw-stock	E. Eugels and B. Wesselmann	378,830	Feb. 28	2325	592	42	953
Screw-stoppers. Manufacture of	H. Barrett and J. J. Varley	382,206	May 1	480	123	43	601
Screw-swaging machine	H. A. Harvey	381,949	June 5	158	46, 47	43	1151
Screw-swaging machine	C. D. Rogers	393,484	Nov. 27	1923	503	45	991
Screw-tap	E. Firth, A. and I. Tompkins	379,213	Mar. 13	514	144	42	1069
Screw-tap	L. Parkerton	376,342	Jan. 10	871	229	42	176
Screw-tap. Expandible and collapsible	W. Mather	387,431	Aug. 7	337	87	44	638
Screw-threading machine	C. D. Rogers	389,168	Sept. 4	558	140	44	1175
Screw-threads. Machine for rolling	C. D. Rogers	389,170	Sept. 4	565	142	44	1176
Screw. Wood	C. D. Rogers	386,092	July 10	1119	298	44	227
Screw. Wood	J. F. Thayer	391,097	Oct. 16	1298	346	45	265
Screw. Wood	C. M. Whitmore	375,907	Jan. 3	240	65	42	50
Screws. Die for forming and threading the points of	C. D. Rogers	387,184	July 31	2756	721	44	562
Screws. Machine for automatically polishing ball-ance-	E. A. Marsh	395,160	Dec. 25	2231	{ 573 } { 280 } { 281 }	45	1528
Screws. Machine for making metal	E. Horton	379,577	Mar. 20	1053	{ 280 } { 281 }	42	1180
Scriptoscope	L. A. Boyd	389,190	Sept. 11	597	153	44	1192
Scroll-work. Making	F. Hainsworth	386,125	July 17	1167	310	44	243
Scroll-work. Uniting pieces of	F. Hainsworth	386,124	July 17	1166	310	44	243
Scutching or fiber-cleaning machines. Feeding apparatus for	A. H. Death	385,300	June 26	2204	565	43	1571
Scythe-fastener	L. R. Edwards	377,022	Jan. 31	1887	496	42	370
Sea-quieting apparatus	J. P. O. Larsen	387,427	Aug. 7	334	86	44	637
Seal	J. H. Bickford	394,531	Dec. 11	1179	307	45	1304
Seal	E. J. Brooks	379,885	Mar. 20	1535	405	42	1273
Seal	E. J. Brooks	391,295	Oct. 16	1569	416	45	316
Seal	L. A. Brown	392,173	Oct. 30	2841	770	45	587
Seal	R. M. Rose	390,988	Oct. 9	1121	296	45	224
Seal for checks. Safety	A. M. Woodhull	385,158	June 26	1978	506	43	1527
Seal for locks, &c	G. G. Smith	386,663	July 24	1959	517	44	407
Seal for seal-locks	L. A. Brown	388,819	Sept. 4	15	5, 6	44	1076
Seal-lock	C. H. Adams	393,876	Dec. 4	214	57	45	1112
Seal-lock	G. W. Amos	389,732	Sept. 18	1428	372	44	1358
Seal-lock	E. C. Bartlett	381,115	June 5	396	111	43	1197
Seal-lock	W. F. Beasley	386,683	July 24	1983	524	44	412
Seal-lock	E. J. Brooks	393,678	Nov. 27	2230	585	45	1055
Seal-lock	L. A. Brown	388,258	Aug. 21	1653	441	44	905
Seal-lock	L. A. Brown	388,818	Sept. 4	14	5	44	1075
Seal-lock	L. A. Brown	392,496	Nov. 6	469	118	45	684
Seal-lock	L. A. Brown	394,094	Dec. 4	525	141	45	1171
Seal-lock	P. Brown	383,434	May 29	2325	{ 616 } { 617 }	43	990
Seal-lock	C. E. Davis	381,534	Apr. 24	1867	493	43	398
Seal-lock	L. C. Godwin	389,381	Sept. 11	881	231	44	1248
Seal-lock	G. W. Lewis	388,208	Aug. 21	1570	418	44	888
Seal-lock	C. A. Marshall	375,886	Jan. 3	211	58	42	45
Seal-lock	E. Meiso	380,446	Apr. 3	208	56	43	42
Seal-lock	M. J. Moran	394,204	Dec. 11	687	184	45	1211
Seal-lock	A. H. Pierce	381,069	June 7	340	96	43	1185
Seal-lock	O. C. Pratt	381,542	June 12	1051	274	43	1328
Seal-lock	R. M. Rose	392,227	Nov. 6	74	18	45	608
Seal-lock	R. M. Sully	380,269	Mar. 27	2079	557	42	1390
Seal-lock	W. B. Waldron and G. C. Boller	379,348	Mar. 13	698	190	42	1104
Seal-lock	F. M. Ware and G. W. Benjamin	376,355	Jan. 10	889	233	42	179
Seal-lock	C. H. Watson	384,221	June 5	560	154	43	1229
Seal-press	A. B. Schofield	378,624	Feb. 28	1911	506	42	894
Seal. Sheet-metal	W. F. Beasley	377,662	Feb. 7	472	120	42	584
Sealing fruit-jars. Device for	W. W. Osmond	380,921	Apr. 19	932	248	43	191
Seam-rubbing machine	S. Bloomfield and C. F. Clark	393,351	Nov. 27	1716	454	45	952
Seam-rubbing machine	C. S. Fifield	383,874	June 5	34	11	43	1128
Seam-rubbing machine	C. S. Fifield	386,241	July 17	1351	356	44	278
Seamer. Metal	W. Hess	395,139	Dec. 25	2194	564	45	1522
Seaming-machine	F. A. Walsh	382,572	May 8	1054	269	43	721
Seaming machine. Can	G. W. Lore	380,212	Mar. 27	2005	{ 536 } { 537 }	42	1375
Seaming machine. Can	G. W. Lore	383,400	May 22	2268	603	43	973
Seaming machine. Double	E. Norton and J. G. Hodgson	378,143	Feb. 21	1206	314	42	748
Seaming-machine for sheet-metal vessels	F. A. Walsh	382,499	May 8	937	{ 238 } { 239 }	43	697
Seat:							
See Bath-tub seat.	School-seat.						
Buggy-seat.	Shifting-seat.						
Car-seat.	Spring-seat.						
Chair-seat.	Store-service seat.						
Folding seat.	Vehicle-seat.						
Life-boat deck-seat.	Velocipede-seat.						
Opera or school seat.	Wagon-seat.						
Privy-seat.							
Seat and cane. Combined	C. Lange	393,160	Nov. 20	1430	{ 373 } { 374 }	45	887
Seat convertible into a table	L. Evans	377,356	Jan. 31	2376	686	42	482
Seat-corner fastening	J. W. Marcy	378,606	Feb. 28	1886	499	42	889
Seat, easel, and sunshade. Combined	C. F. H. Richter	375,953	Jan. 3	306	82	42	63
Seat-fastener	M. D. Schaler	395,160	Dec. 25	2266	581	45	1534

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. li.	Vol.	Page.
Seat or couch spring	W. F. Rippon	386,849	July 31	2263	596	44	471
Seats. Anti-friction runner for sliding	J. H. Abeel, Jr.	390,740	Oct. 9	755	198	45	157
Secondary batteries. System of electrical distribution by	J. S. Sellon	378,115	Feb. 21	1155	301	42	740
Secondary battery	C. B. Askew and J. K. Pumpelly	389,186	Sept. 11	592	151	44	1191
Secondary battery	J. Beattie, Jr.	388,335	Aug. 21	1767	471	44	926
Secondary battery	H. H. Carpenter	380,989	Apr. 10	1046	276	43	212
Secondary battery	N. De Benardos	380,554	Apr. 3	374	107	43	77
Secondary battery	L. Duncan	394,471	Dec. 11	1089	283	45	1287
Secondary battery	L. Duncan	394,474	Dec. 11	1092	283	45	1288
Secondary battery	L. Epstein	382,420	May 8	812	207	43	674
Secondary battery	L. Epstein	383,216	May 22	1998	{ 523 } 524	{ 43 } 43	925
Secondary battery	C. A. Faure	383,560	May 29	2555	666	43	1028
Secondary battery	C. A. Faure	383,562	May 29	2527	666	43	1028
Secondary battery	C. A. Faure	389,882	Sept. 25	1653	438	44	1409
Secondary battery	F. King	385,558	July 3	342	88, 89	44	69
Secondary battery	A. V. Meserolo	381,941	May 1	61	15	43	526
Secondary battery	L. Paget	393,575	Nov. 27	2052		45	1020
Secondary battery	L. Paget	393,576	Nov. 27	2053	538	45	1020
Secondary battery	L. Paget	393,577	Nov. 27	2055	538	45	1020
Secondary battery	A. Reckenzann	385,200	June 26	2041	522	43	1539
Secondary battery	S. Russell	383,150	May 22	1907	498	43	907
Secondary battery	J. S. Sellon	377,642	Feb. 7	434	111	42	578
Secondary battery	J. S. Sellon	383,193	May 22	1961	514	43	917
Secondary battery	J. S. Sellon	386,898	July 31	2333	613	44	484
Secondary battery	M. Stecher	378,629	Feb. 28	1918	508	42	895
Secondary battery	H. Walter	392,214	Nov. 6	96	21	45	613
Secondary or storage electric battery	S. L. Trippe	385,390	July 3	76	21	44	17
Sectional boiler	E. Gurney	389,460	Sept. 11	1004	269	44	1271
Sectional boiler	E. Gurney	389,461	Sept. 11	1005	269	44	1271
Sectional boiler	E. Gurney	389,462	Sept. 11	1005	269	44	1271
Sectional boiler	J. D. Monat	388,370	Aug. 21	1831	486	44	938
Sectional boiler	G. G. Prefontaine	392,881	Nov. 13	1037	267	45	803
Seed cleaner. Cotton	J. L. Weatherhead and J. S. Cochran	384,803	June 19	1434	376	43	1411
Seed-cleaning machine. Cotton	H. E. Knerr	377,621	Feb. 7	405	102	42	573
Seed-cotton cleaner	L. F. Carr	387,674	Aug. 14	724	186	44	718
Seed. Delinting cotton	F. C. Cooper	389,739	Sept. 18	1435	{ 375 } 376	{ 44 } 44	1359
Seed-drill	A. Huntley	390,603	Oct. 2	563	149	45	113
Seed-drill and cultivator. Combined	J. Statzenberger	380,061	Mar. 27	1798	480	42	1334
Seed extractor. Grape	S. E. Touney	381,657	Apr. 21	2039	534	43	433
Seed-hulling machines. Cylinder for cotton	A. D. Catlin	380,787	Apr. 10	735	201	43	154
Seed. Machine for delinting cotton	A. Seibert	383,374	May 22	2221	590	43	966
Seed. Machine for delinting cotton	J. L. Weatherhead and J. S. Cochran	381,340	June 12	754	197	43	1272
Seed. Method of and apparatus for treating fiber-coated	W. F. Corne	381,616	Apr. 24	1983	521	43	421
Seed separator. Cotton	D. J. Ames	393,053	Nov. 20	1291	335	45	860
Seed-tester	H. A. Goetz	376,242	Jan. 10	731	194	42	150
Seed. Treating cotton	W. H. Burnet, J. Sears, and O. G. Burnham	380,087	Mar. 27	1837	489	42	1341
Seeder and cultivator	I. F. Gilmore and A. P. Branaman	375,741	Jan. 3	32	10	42	10
Seeder and harrow. Combined	G. M. Clark	380,422	Apr. 3	165	46, 47	43	34
Seeder. Hand	S. B. Rittenhouse	386,497	July 24	1716	454	44	362
Seeding and cultivating machine. Combined	W. Dickinson	388,026	Aug. 21	1259	342	44	831
Seeding-machine	W. D. Arnett	377,922	Jan. 31	2169	572	42	447
Seeding-machine	W. D. Arnett	377,923	Feb. 14	880	225	42	678
Seeding-machine	G. W. W. Billings	378,758	Feb. 28	2100	554	42	928
Seeding-machine	A. N. Norris	385,724	July 10	585	152	44	121
Seeding-machine	W. H. Schenck	392,368	Nov. 6	281	72	45	648
Seeding-machines. Pawl and ratchet mechanism for	E. W. Summers	394,085	Dec. 4	508	136	45	1169
Seesaw	J. F. French	389,961	Sept. 25	1765	468	44	1432
Seine	S. T. Winsor	379,751	Mar. 20	1302	{ 347 } 318	{ 42 } 42	1229
Seine-boat	H. B. Joyce	393,158	Nov. 20	1428	372	45	886
Seizing fibers and other objects of small diameter. Tool for	C. Charpentier	389,195	Sept. 11	604	155	44	1193
Self-acting motor and pump	F. G. Barthel	378,998	Mar. 6	205	56	42	1005
Selling-machine	F. M. Leavitt	384,770	June 19	1385	363	43	1401
Selling-machine	J. A. Williams	388,101	Aug. 21	1383	372	44	853
Semaphore	A. A. Strom	389,611	Sept. 18	1236	323	44	1320
Semaphore-signal	J. G. Schreuder	387,452	Aug. 7	376	98	44	647
Semaphore-signal	F. Stitzel and C. Weinedel	393,865	Dec. 4	193	53, 54	45	1108
Semaphore signal apparatus	F. Stitzel and C. Weinedel	389,409	Apr. 3	148	42, 43	43	31
Separating-machine	N. W. Holt	384,950	June 19	1651	{ 429 } 430	{ 43 } 43	1452
Separating-machine	A. J. Miller	381,058	June 5	325	92	43	1182
Separator							
See Chop-separator.	Grain-separator.						
Coal-separator.	Liquid-separator.						
Cockle-separator.	Magnetic separator.						
Dry separator.	Ore-separator.						
Dust-separator.	Potato-separator.						
Electro-magnetic separator.	Rice-separator.						
Gold-separator.	Seed-separator.						
	Steam-separator.						
Separator	F. A. Hine	384,374	Apr. 17	1617	432	43	331
Separator	J. G. De Ryke	379,009	Mar. 6	218	59	42	1007
Separator	G. Jones	391,850	Oct. 30	2347	637	45	490
Separator	J. J. Lowden	381,150	Apr. 17	1297	347	43	269
Separator	J. B. Nichols	395,168	Dec. 25	2215	577	45	1531
Separator	W. L. Simpson	395,185	Dec. 25	2273	583	45	1535
Separator	S. Stuart	383,674	May 29	2677	708	43	1062
Separator	A. Weuple	390,839	Apr. 10	800	219	43	167

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Separator .....	H. C. White .....	386,173	July 17	1232	329	41	256
Service-tank .....	R. Clarke .....	391,402	Oct. 23	1716	457	45	352
Setting for ornaments .....	W. C. Edge .....	378,043	Feb. 14	1050	274	42	712
Sewage and night-soil desiccating apparatus .....	P. C. Close .....	380,383	Apr. 3	118	31	43	25
Sewage and sea-water. Electrolyzing .....	W. Webster, Jr. ....	389,781	Sept. 18	1486	392	44	1370
Sewage. Apparatus for purifying .....	J. G. Heywood .....	392,606	Nov. 13	640	160	45	724
Sewage. Apparatus for treating .....	S. E. Harthan .....	390,168	Sept. 25	2079	554	44	1496
Sewage. Apparatus for treating .....	J. G. Heywood .....	392,605	Nov. 13	637	160	45	723
Sewage. Apparatus for treating .....	J. G. Heywood .....	392,607	Nov. 13	642	160	45	724
Sewage. Apparatus for treating .....	C. Lortzing .....	389,479	Sept. 11	1029	275	44	1275
Sewage. Means and apparatus for collecting and separating .....	W. A. Pitt .....	382,188	May 1	451	118	43	597
Sewer-cleaning mechanism .....	J. A. Wyman .....	388,127	May 1	369	96	43	581
Sewer. Shoe .....	C. K. Sherburne .....	376,113	Jan. 10	542	141	42	115
Sewer-trap .....	S. T. Hadden .....	391,143	Oct. 16	1356	332	45	276
Sewer-ventilator .....	L. L. Benson and W. T. Stilwell ..	387,134	July 31	2685	704	44	550
Sewer-ventilator .....	W. H. McAndrews ..	379,899	Mar. 20	1558	410	42	1277
Sewers and drains. Air-inlet for .....	E. S. McClellan .....	381,711	Apr. 24	2119	553	43	448
Sewers and other excavations. Cutting device for .....	W. Watson .....	382,573	May 8	1057	269 270	43	721
Sewers. Apparatus for constructing .....	C. D. Clark .....	392,989	Nov. 20	1207	314	45	842
Sewers. Apparatus for flushing .....	H. J. Mitchell .....	389,712	Sept. 18	1398	366	41	1351
Sewers. Catch-basin and trap for .....	J. S. Runyan .....	391,339	Oct. 16	1024	430	45	327
Sewers. Means for flushing .....	T. Galvin .....	394,166	Dec. 11	628	168	45	1201
Sewers. Ventilating man-hole for .....	T. W. Morgan .....	388,993	Sept. 4	268	71	44	1124
Sewerage or drainage of houses, towns, or districts, and apparatus therefor .....	A. Le Marquand .....	377,681	Feb. 7	496	128	42	589
Sewing bags. Machine for .....	L. Bollmann .....	380,981	Apr. 10	1031	269 270	43	204
Sewing books .....	W. W. Neel .....	381,211	June 5	518	151	43	1227
Sewing comfortables and other fabrics. Machine for .....	F. L. Palmer .....	380,815	Apr. 10	766	210	43	161
Sewing looped fabrics. Alarm-signal for machines for .....	T. S. Smith .....	389,534	Sept. 11	1102	292	44	1289
Sewing-machine .....	E. M. Ackerman .....	387,479	Aug. 7	410	108	44	653
Sewing-machine .....	H. P. Aldrich .....	393,414	Nov. 27	1806	477	45	969
Sewing-machine .....	E. E. Angell .....	378,075	Feb. 21	1097	287 288	42	729
Sewing-machine .....	G. A. Annett .....	386,415	July 24	1643	433 434 514	44	347
Sewing-machine .....	S. Arnold .....	378,645	Feb. 28	1938	515 516	42	899
Sewing-machine .....	J. Bolton .....	376,285	Jan. 10	791	210	42	161
Sewing-machine .....	C. P. Bostian .....	382,794	May 15	1376	361	43	792
Sewing-machine .....	A. A. Bonton .....	378,653	Feb. 28	1952	519	42	901
Sewing-machine .....	W. O. Crain .....	376,978	Jan. 24	1817	478	42	370
Sewing-machine .....	O. C. Dolloff and R. M. Eastman ..	377,888	Feb. 14	820	212	42	667
Sewing-machine .....	C. L. Fleischmann .....	380,317	Apr. 3	15	4	43	6
Sewing-machine .....	J. Jackson and P. A. Martin .....	393,982	Dec. 4	366	98, 99	45	1141
Sewing-machine .....	J. Kayser .....	377,830	Feb. 14	752	190 191	42	652
Sewing-machine .....	M. Lachman .....	377,525	Feb. 7	270	68	42	546
Sewing-machine .....	F. T. Leilich .....	386,252	July 17	1361	358 359	41	280
Sewing-machine .....	I. W. Litchfield .....	386,837	July 31	2245	590	44	468
Sewing-machine .....	C. F. Littlejohn .....	391,806	Oct. 30	2282	619 620	45	478
Sewing-machine .....	T. H. Martin .....	379,175	Mar. 6	441	124	42	1050
Sewing-machine .....	T. L. Melone .....	383,748	May 20	2787	733 731	43	1084
Sewing-machine .....	F. W. Merrick .....	388,897	Sept. 4	135	36	44	1098
Sewing-machine .....	L. L. Miller .....	381,059	June 5	326	92, 93	43	1183
Sewing-machine .....	J. Moss and C. B. Hunt .....	389,094	Sept. 4	417	109 110	41	1152
Sewing-machine .....	J. W. Post .....	378,804	Feb. 28	2176	579	42	943
Sewing-machine .....	E. Querol y Delgado .....	377,515	Feb. 7	257	64	42	543
Sewing-machine .....	R. W. Scott .....	395,005	Dec. 25	1911	513	45	1483
Sewing-machine .....	J. Stewart and G. W. Weiss .....	378,630	Feb. 28	1919	508	42	895
Sewing-machine .....	C. E. Tibbles .....	383,419	May 22	2298	610	43	978
Sewing-machine .....	C. E. Tibbles .....	383,924	June 5	126	37	43	1145
Sewing-machine .....	E. H. Triessler .....	385,973	July 19	941	250	44	1192
Sewing-machine .....	J. Vannett .....	388,324	Aug. 21	1753	468	44	924
Sewing-machine attachment .....	F. W. Mallett .....	393,252	Nov. 20	1565	410 411	45	914
Sewing-machine attachment. Button-hole .....	A. L. Traver .....	393,193	Nov. 20	1481	387	45	897
Sewing-machine attachment for preventing kinks in waxed thread .....	A. S. Trowbridge .....	393,042	Nov. 20	1278	331	45	857
Sewing-machine-attachment holder .....	J. M. Griest .....	381,546	Apr. 24	1882	497	43	401
Sewing-machine-attachment holder .....	J. M. Griest .....	394,966	Dec. 25	1928	498	45	1471
Sewing-machine binder-guide .....	T. C. Robinson .....	378,904	Mar. 6	62	18	42	979
Sewing-machine bobbin-winder .....	A. Lewis .....	391,905	Oct. 30	2427	656	45	507
Sewing-machine bobbin-winder .....	J. E. Nahr .....	379,533	Mar. 20	1076	276	42	1183
Sewing-machine bobbins. Machine for winding .....	G. Hoeg .....	392,336	Nov. 6	232	60	45	638
Sewing-machine bobbins. Machine for winding .....	C. Woodman .....	381,457	Apr. 17	1746	467	43	356
Sewing machine. Book .....	J. R. Reynolds .....	378,461	Feb. 28	1683	441 442	42	847
Sewing machine. Book .....	D. M. Smyth .....	378,467	Feb. 21	1695	445	42	848
Sewing machine. Book .....	D. M. Smyth .....	378,984	Mar. 6	175	49	42	1000
Sewing machine. Book .....	D. M. Smyth .....	378,985	Mar. 6	177	50	42	1000
Sewing machine. Button .....	R. Thompson .....	388,796	Aug. 28	2430	656	44	1060
Sewing-machine. Button-hole .....	J. Boynton .....	390,063	Sept. 25	1920	506 507	44	1463
Sewing-machine. Button-hole .....	A. L. Coombs .....	389,547	Sept. 18	1131	297	44	1301
Sewing-machine. Button-hole .....	J. S. Freese .....	382,466	May 8	890	227 228	43	687

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Sewing-machine. Button-hole.....	T. P. Hagerty.....	382,763	May 15	1928	349	43	783
Sewing-machine button-hole attachment.....	W. M. Ammerman.....	388,172	Aug. 21	1518	401	41	877
Sewing-machine button-hole attachment.....	F. Egge.....	376,297	Jan. 10	806	213	42	164
Sewing-machine button-hole attachment.....	A. W. Johnson.....	389,573	Sept. 18	1169	307	41	1308
Sewing-machine button-hole attachment.....	W. Schott.....	379,666	Mar. 20	1177	312	42	1204
Sewing-machine button-hole attachment.....	J. L. Smith.....	388,316	Aug. 21	1740	313	44	922
Sewing-machine button-hole attachment.....	H. Weeks and H. D. Stone.....	390,539	Oct. 2	484	126	45	98
Sewing-machine button-hole attachment.....	H. J. Williams.....	383,423	May 22	2305	612	43	980
Sewing-machine clamp Button-hole.....	W. Wallick.....	385,585	July 3	380	98	44	76
Sewing-machine clamp-centering device.....	H. M. Essington.....	377,891	Feb. 14	833	213	42	668
Sewing-machine embroidering attachment.....	J. W. Foster.....	386,193	July 17	1259	336	44	262
Sewing-machine embroidering attachment.....	E. Frankenberg.....	384,178	June 5	530	115	43	1224
Sewing-machine embroidering attachment.....	A. W. Johnson.....	384,257	June 12	625	169	43	1250
Sewing-machine embroidering attachment.....	J. W. Von Pittler.....	378,383	Feb. 21	1558	407	42	815
Sewing-machine embroidering attachment.....	J. W. Von Pittler.....	378,384	Feb. 21	1559	408	42	815
Sewing-machine feeding attachment.....	S. D. Tucker.....	376,122	Jan. 10	562	149	42	118
Sewing-machine feeding device.....	R. M. Hatcher.....	381,778	Apr. 24	2203	577	43	465
Sewing-machine feeding device.....	E. Wardward.....	380,008	Mar. 27	1723	461	42	1319
Sewing-machine feeding mechanism.....	J. Bolton.....	376,283	Jan. 10	787	208	42	161
Sewing-machine feeding mechanism.....	P. Diehl.....	388,345	Aug. 21	1779	474	44	929
Sewing-machine feeding mechanism.....	R. D. Tucker.....	388,005	Aug. 14	1228	475	44	817
Sewing-machine for connecting soles and uppers.....	P. A. and J. Conpal.....	381,987	May 1	143	31	43	541
Sewing-machine for connecting soles and uppers.....	P. A. and J. Conpal.....	385,299	June 26	2199	562	43	1571
Sewing-machine for stitching uppers to soles. Wax-thread.....	G. Ambörn, Jr.....	388,752	Aug. 28	2363	563	44	1047
Sewing-machine for uniting soles to uppers.....	P. A. Conpal.....	381,988	May 1	147	564	43	542
Sewing-machine. Gang.....	M. Gardner.....	386,700	July 24	2003	565	44	416
Sewing-machine. Glove.....	C. M. Boland.....	392,181	Nov. 6	9	3	45	596
Sewing-machine guide.....	J. M. Griest.....	394,970	Dec. 25	1936	499	45	1472
Sewing-machine guide.....	M. E. Hunter.....	389,152	Sept. 4	537	135	44	1171
Sewing-machine guide.....	C. Torrey.....	379,668	Mar. 20	1185	314	42	1205
Sewing-machine. Hand.....	L. P. Ingraham and G. L. Hubbell.....	389,081	Sept. 4	399	104	44	1149
Sewing-machine hemmer.....	W. H. Ganss.....	378,048	Feb. 14	1059	277	42	714
Sewing-machine hemming attachment.....	J. G. Davy.....	392,413	Nov. 6	352	87	45	661
Sewing-machine loop-takers. Mechanism for imparting motion to.....	W. Becroft.....	390,278	Oct. 2	109	31	45	25
Sewing-machine looper.....	R. Fryer.....	378,165	Feb. 21	1235	325	42	754
Sewing-machine. Multiple.....	M. Gardner.....	379,570	Mar. 20	1041	277	42	1178
Sewing-machine motor.....	E. F. Briggs.....	388,393	Aug. 28	1863	497	44	950
Sewing-machine motor.....	T. W. Hughes.....	386,782	July 24	2127	559	41	438
Sewing-machine needle.....	L. Muther.....	393,119	Nov. 20	1376	359	45	876
Sewing-machine oscillating shuttle-driver.....	J. Bolton.....	376,284	Jan. 10	789	209	42	161
Sewing-machine overcasting attachment.....	S. M. Moschowitz.....	380,047	Mar. 27	1776	475	42	1328
Sewing-machine plating attachment.....	A. Hallett.....	375,741	Jan. 3	36	11	42	10
Sewing-machine presser-foot. Device for lifting.....	G. H. Diamond and A. C. Campbell.....	386,878	July 31	2290	602	44	477
Sewing-machine presser-foot.....	C. Leak.....	390,606	Oct. 2	566	150	45	114
Sewing-machine presser-foot.....	C. P. Littlejohn.....	387,083	July 31	2593	683	44	536
Sewing-machine presser-foot.....	W. F. Nesmith.....	391,981	Oct. 30	2536	686	45	528
Sewing-machine presser-foot.....	D. A. Sutherland.....	381,090	Apr. 10	1210	324	43	243
Sewing-machine quilting attachment.....	H. T. Davis.....	377,242	Jan. 31	2201	580	42	452
Sewing-machine ruffler.....	J. M. Griest.....	394,969	Dec. 25	1934	499	45	1472
Sewing-machine ruffling attachment.....	J. M. Griest.....	394,972	Dec. 25	1939	500	45	1473
Sewing-machine ruffling attachment.....	A. Johnston.....	392,035	Oct. 30	2613	710	45	543
Sewing-machine ruffling attachment.....	E. J. Toof.....	377,363	Jan. 31	2386	689	42	485
Sewing-machine. Running-stitch.....	S. Hahn.....	386,536	July 24	1785	472	44	374
Sewing-machine. Shoe.....	W. Comey.....	389,059	Sept. 4	369	96	44	1143
Sewing-machine shuttle.....	G. W. Baker.....	393,728	Dec. 4	4	2	45	1074
Sewing-machine shuttle.....	D. Snijter and M. Kuelm.....	377,022	Jan. 31	1924	566	42	398
Sewing-machine shuttle.....	C. E. Wilkinson.....	379,353	Mar. 13	704	192	42	1105
Sewing-machine shuttle.....	L. Williams.....	378,855	Feb. 28	2266	602	42	959
Sewing-machine shuttle and shuttle-driver.....	E. Woodward.....	390,147	Sept. 25	2039	543	41	1488
Sewing-machine shuttle and shuttle-operating mechanism.....	W. E. Bennett.....	381,230	June 12	584	159	43	1243
Sewing-machine shuttle-bobbin.....	C. E. Wilkinson.....	391,672	Oct. 23	2077	562	45	428
Sewing-machine shuttle-operating mechanism.....	J. Bolton.....	376,364	Jan. 10	900	236	42	181
Sewing-machine shuttles. Driving mechanism for rotary.....	J. Bolton.....	390,644	Oct. 9	622	166	45	132
Sewing-machine shuttles. Raceway for rotary.....	J. H. Griffin.....	392,795	Nov. 13	920	235	45	778
Sewing-machine stand.....	J. Bolton.....	380,171	Mar. 27	1948	520	42	1363
Sewing-machine. Straw.....	C. H. Wilcox and G. H. Noble.....	392,087	Oct. 30	2689	732	45	558
Sewing-machine. Straw-braid.....	F. Blackburn.....	380,167	Mar. 27	1943	518	42	1362
Sewing-machine table.....	M. G. Blako.....	387,040	July 31	2531	666	44	524
Sewing-machine table.....	J. Wertheim.....	378,636	Feb. 28	1926	511	42	897

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Sewing-machine take-up .....	J. Bolton .....	389,788	Sept. 18	1500	395	44	1373
Sewing-machine take-up .....	E. Querol y Delgado .....	377,516	Feb. 7	259	65	42	544
Sewing-machine take-up mechanism .....	R. Thompson .....	389,096	Sept. 4	322	85	44	1133
Sewing-machine tension .....	E. Querol y Delgado .....	377,517	Feb. 7	260	65	42	544
Sewing-machine tension mechanism .....	J. Cumming .....	381,912	May 1	21	6	43	519
Sewing-machine tension-releasing device .....	H. M. Essington .....	377,890	Feb. 11	532	213	42	668
Sewing-machine thread-controlling mechanism .....	S. Arnold .....	391,352	Oct. 16	1642	434	45	330
Sewing-machine thread-controlling mechanism .....	W. F. Dial .....	386,300	July 17	1429	378	44	293
Sewing-machine thread-unwinder .....	A. J. Hart .....	385,858	July 10	785	209	44	160
Sewing-machine thread-unwinder .....	C. E. Wilkinson .....	388,328	Aug. 21	1758	469	44	925
Sewing-machine treadles. Oil-guard for .....	J. Austin .....	395,198	Dec. 25	2289	588	45	1538
Sewing-machine trimming attachment .....	J. W. Dewees .....	381,537	Apr. 24	1871	494	43	399
Sewing-machine trimming attachment .....	C. H. Willcox .....	387,029	July 31	2519	602	44	521
Sewing-machine trimming attachment .....	C. H. Willcox .....	390,109	Sept. 25	1990	539	44	1478
Sewing-machine trimming device .....	W. A. Neely and N. G. Rowell .....	379,714	Mar. 20	1253	334	42	1219
Sewing-machine trimming mechanism .....	W. A. Neely .....	379,410	Mar. 13	792	213	42	1122
Sewing-machine tuck creasing or marking attachment .....	J. M. Griest .....	394,968	Dec. 25	1932	499	45	1472
Sewing-machine tuck creasing or marking attachment .....	J. M. Griest .....	394,971	Dec. 25	1937	499	45	1472
Sewing-machine tuck-marking attachment .....	J. M. Griest .....	394,967	Dec. 25	1930	498	45	1471
Sewing-machine tucking-guide .....	A. Laubscher .....	385,560	July 3	345	90	44	69
Sewing-machine. Wax-thread .....	C. F. Harlow .....	378,929	Mar. 6	96	28	42	985
Sewing-machine. Wax-thread .....	A. S. Richardson .....	377,466	Feb. 7	179	42	42	530
Sewing-machine welt-guide .....	R. D. Tucker .....	387,963	Aug. 14	1164	316	44	804
Sewing-machine welt-trimmer .....	J. W. Dewees .....	381,536	Apr. 24	1870	494	43	398
Sewing-machines. Barring device for button-hole .....	W. A. Knight .....	394,580	Dec. 18	1273	333	45	1336
Sewing-machines. Belt removing and replacing device for .....	J. Bolton .....	389,789	Sept. 18	1502	395	44	1373
Sewing-machines. Clamp-centering device for button-hole .....	H. M. Essington .....	377,932	Feb. 14	893	230	42	682
Sewing-machines. Clamp-centering device for button-hole .....	H. M. Essington .....	377,933	Feb. 14	897	231	42	682
Sewing-machines. Clamp for loops for .....	J. R. Reynolds .....	378,462	Feb. 28	1686	442	42	847
Sewing-machines. Cutter for button-hole .....	J. H. Reed .....	393,925	Dec. 4	283	76	45	1326
Sewing-machines. Cutting attachment for .....	H. Lefebvre .....	382,169	May 1	426	111	43	592
Sewing-machines. Cutting mechanism for button-hole .....	J. G. Greene .....	376,475	Jan. 17	1063	278	42	218
Sewing-machines. Detachable shade for .....	W. H. Lamfersiek .....	386,251	July 17	1360	358	44	280
Sewing-machines. Device for straightening and evening fabrics for .....	S. Arnold .....	378,823	Feb. 28	2212	589	42	950
Sewing-machines. Dirt-guard for .....	C. H. Willcox and G. H. Noble .....	392,088	Oct. 30	2711	737	45	563
Sewing-machines. Driving apparatus and brake for .....	W. F. Dial .....	391,694	Oct. 23	2104	570	45	433
Sewing-machines. Hand propelling device for .....	K. P. Beaird .....	380,973	Apr. 10	1018	266	43	206
Sewing-machines. Hemstitching attachment for .....	T. L. Melone .....	378,706	Feb. 28	2032	537	42	916
Sewing-machines. Horn for shoe .....	J. N. Moulton .....	392,629	Nov. 13	673	168	45	730
Sewing-machines. Looping attachment for .....	A. M. Perkins .....	390,896	Oct. 9	972	256	45	197
Sewing-machines. Machine for winding bobbins for .....	G. H. Willey .....	377,542	Feb. 7	292	74	42	551
Sewing-machines. Moistening attachment for shoe .....	G. Blakeney .....	378,759	Feb. 28	2101	554	42	928
Sewing-machines. Needle for book .....	D. M. Smyth and J. R. Reynolds .....	387,744	Aug. 14	829	214	44	737
Sewing-machines. Needle-threading attachment for .....	C. N. Miner .....	392,636	Nov. 13	667	167	45	729
Sewing-machines. Oscillating hook for .....	J. Vannett .....	388,323	Aug. 21	1750	468	44	924
Sewing-machines. Pad-stitching attachment for .....	F. W. Mallett .....	390,685	Oct. 9	972	181	45	143
Sewing-machines. Presser-foot for button .....	W. E. Bennett .....	384,231	June 12	587	159	43	1244
Sewing-machines. Presser-foot-operating device for .....	E. G. Eberhart .....	390,071	Sept. 25	1930	509	44	1465
Sewing-machines. Presser-foot-operating mechanism for .....	J. Mathison .....	380,656	Apr. 3	523	144	43	105
Sewing-machines. Quilt-holding attachment for .....	W. Rose .....	391,081	Oct. 16	1273	338	45	261
Sewing-machines. Revolving hook for .....	E. Kohler and M. Lachman .....	393,766	Dec. 4	47	14	45	1081
Sewing-machines. Revolving hook for .....	S. W. Wardwell, Jr .....	391,666	Oct. 23	2068	560	45	426
Sewing-machines. Ruffling attachment for .....	T. L. Meione .....	378,705	Feb. 28	2030	536	42	916
Sewing-machines. Stitch-forming mechanism for button .....	W. E. Bennett .....	392,096	Oct. 30	2721	739	45	565
Sewing-machines. Stop-motion mechanism for .....	H. H. Cummings .....	391,769	Oct. 23	2208	596	45	454
Sewing-machines. Tucking-guide for .....	H. Freedman .....	393,329	Nov. 20	1685	445	45	938
Sewing machines. Work-holding horn for shoe .....	E. L. Sprague and G. R. Peare .....	383,546	May 29	2509	662	43	1025
Sewing on buttons. Machine for .....	E. Woodward .....	390,148	Sept. 25	2040	544	44	1488
Sewing thatch. Machine for .....	F. C. Lake .....	391,251	Oct. 16	1502	398	45	305
Sewing-tool .....	C. K. Bradford .....	382,750	May 15	1312	345	43	780
Sewing. Uniting fabrics by .....	S. Arnold .....	378,644	Feb. 28	1937	514	42	899
Shackle .....	L. C. Ferrell and D. Israel .....	381,005	Apr. 10	1067	283	43	215
Shackle .....	F. McDonald .....	375,945	Jan. 3	296	80	42	62
Shackle. Spring .....	J. A. Lamplugh .....	392,534	May 8	996	253	43	708
Shade attachment. Window .....	S. O. Campbell .....	378,039	Feb. 14	1044	273	42	711
Shade-fixture .....	M. Thiel .....	394,737	Dec. 18	1534	402	45	1387
Shade fixture. Window .....	R. J. Betts .....	378,079	Feb. 21	1103	289	42	730
Shade fixture. Window .....	D. W. Wise .....	382,784	May 15	1360	357	43	790
Shade-holder .....	L. J. Atwood .....	387,755	Aug. 14	843	217	44	740
Shade-pull .....	C. W. Elliott .....	381,543	Apr. 24	1879	496	43	400
Shade-roller. Spring .....	G. T. Briggs .....	375,086	Jan. 3	356	95	42	72
Shade-roller support .....	E. H. Minger .....	381,714	Apr. 24	2124	555	43	449
Shade rollers or poles. Making wooden .....	A. M. Cooley .....	379,685	Mar. 20	1212	321	42	1211
Shade. Window .....	A. Huffer .....	383,053	May 15	1759	455	43	868



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Shaft and pulley coupling.....	F. E. Frey.....	390,583	Oct. 2	541	141	45	109
Shaft attachment for vehicles.....	R. W. Hare and R. Sproul.....	379,462	Mar. 13	872	235	42	1138
Shaft attachment for vehicles.....	R. Sproul.....	393,791	Dec. 4	81	23	45	1088
Shaft attachment for vehicles.....	R. Sproul.....	394,141	Dec. 4	592	159	45	1185
Shaft attachment for vehicles.....	R. Sproul.....	394,142	Dec. 4	593	159	45	1185
Shaft-bearing.....	P. M., W. H., and C. T. Beck.....	394,438	Dec. 11	1043	272	45	1279
Shaft-bearing. Vertical.....	W. H. Evans.....	377,148	Jan. 31	2063	542	42	425
Shaft-coupling.....	S. H. Barnes.....	381,012	Jan. 5	253	72	43	1170
Shaft-coupling.....	C. D. Burk.....	391,508	Oct. 23	1859	498	45	582
Shaft-coupling.....	G. H. Mackay.....	382,765	May 15	1331	350	43	784
Shaft-coupling.....	R. J. Stuart.....	386,278	July 17	1401	309	44	287
Shaft-coupling. Universal.....	A. Robes.....	379,030	Mar. 6	251	71	42	1013
Shaft. Flexible.....	T. Gare.....	393,065	Nov. 20	1305	340	45	862
Shaft for steamships.....	W. H. Brown.....	376,135	Jan. 10	564	156	42	123
Shaft for vehicles. Auxiliary.....	G. H. Pigman.....	390,138	Sept. 25	2030	541	44	1486
Shaft-hanger.....	A. Loehner.....	383,532	May 29	2188	656	43	1021
Shaft-holder.....	S. E. Hopkins.....	394,116	Dec. 4	552	148	45	1176
Shaft-holder.....	G. J. Spennenberg.....	379,547	Mar. 13	996	267	42	1162
Shaft-iron.....	A. B. Webster.....	377,128	Jan. 31	2041	534	42	420
Shaft-loop.....	J. Kaufman.....	392,612	Nov. 13	648	162	45	725
Shaft-support.....	C. H. Kauffman.....	392,923	Nov. 13	1093	283	45	813
Shaft-support.....	C. P. Tener.....	376,017	Jan. 3	405	107	42	81
Shaft-support.....	A. J. Watson.....	393,946	Dec. 4	306	84	45	1131
Shaft-support for vehicles.....	A. T. Sears.....	393,523	Nov. 27	1982	518	45	1005
Shaft support. Vehicle.....	J. D. Braun and K. Landschneider.....	391,112	Oct. 16	1313	350	45	268
Shaft support. Vehicle.....	O. E. Kelly.....	379,703	Mar. 20	1237	329	42	1216
Shaft support. Vehicle.....	L. Sweet.....	392,295	Nov. 6	169	44	45	626
Shaft-supporter.....	H. M. Powers.....	387,255	Aug. 7	84	20	44	588
Shaft. Vehicle.....	W. J. McDermott.....	376,751	Jan. 24	1482	390 391	42	307
Shaft. Vehicle.....	G. F. McGill.....	385,564	July 3	350	91	44	70
Shafts and ordnance. Manufacture of.....	J. H. Flagler.....	385,049	June 26	1822	467	43	1495
Shafts and pole for vehicles. Convertible.....	W. H. Kelly.....	390,806	Apr. 10	755	207	43	158
Shafts. Anti-friction step for.....	P. M. Sharples.....	388,457	Aug. 28	1947	521	44	968
Shafts. Device for attaching wheels to.....	W. N. Whiteley and W. Bayley.....	392,480	Nov. 6	451	113	45	680
Shafts. Device for imparting end motion to.....	S. Tompkins.....	385,649	July 3	476	123	44	93
Shafts. Device for multiplying speed of.....	M. J. Miller.....	379,971	Mar. 27	1661	443	42	1307
Shafts in bearings. Device for securing.....	G. W. Prouty.....	387,445	Aug. 7	370	95	44	646
Shafts. Means for securing pulleys on.....	W. H. Dodge.....	383,281	May 22	2100	554	43	943
Shafts, pulleys, &c. Coupling for.....	B. L. Williamson.....	384,812	June 19	1453	380	43	1414
Shafts. Register and recorder for revolving.....	S. M. Terry.....	384,479	June 12	943	215	43	1309
Shafts. Spring-support for vehicle.....	G. H. Pigman.....	390,137	Sept. 25	2020	511	44	1486
Shafts. Vehicle.....	S. Zimmerman.....	379,843	Mar. 20	1462	386	42	1259
Shafting. Adjustable sizer for.....	D. H. Shaftuck.....	386,354	July 17	1496	397	44	306
Shafting-bearing.....	C. D. Magee.....	387,238	Aug. 7	57	13	44	582
Shafting. Machine for straightening.....	W. J. Muncaster.....	388,574	Aug. 28	2108	565 566	44	998
Shafting. Machine for straightening and polishing metallic.....	A. P. Baldwin and T. L. Sedgwick.....	378,063	Feb. 14	1076	282 283	42	717
Shafting. Speed-regulator for.....	J. G. Baumann.....	394,435	Dec. 11	1040	272	45	1279
Shaker.....	G. G. Wuchner.....	395,303	Dec. 25	2447	629	45	1568
Shank-burnishing device.....	A. Harden.....	384,573	June 12	1096	288	43	1337
Shaping fleecy masses. Machine for.....	E. Goldman.....	389,645	Sept. 18	1297	339 340	44	1330
Shaping-machine.....	G. W. Davison and J. Buckley.....	384,963	June 26	1671	434	43	1464
Shaping-machine.....	J. Pepper, Jr.....	375,993	Jan. 3	220	60	42	47
Shaping-machine.....	W. H. Warren.....	377,969	Feb. 14	950	248	42	693
Shaping-press. Hydraulic.....	A. E. Hobson.....	381,212	Apr. 17	1429	384	43	293
Sharpening-machine.....	B. D. Whitney.....	390,631	Oct. 9	1027	271	45	208
Shaving-glass.....	H. S. Sharthead.....	392,466	Nov. 6	432	108	45	676
Shavings. Machine for packing.....	G. W. Chase.....	380,185	Mar. 27	1966	525	42	1367
Shawl-strap.....	S. Schener.....	384,395	June 12	833	217	43	1287
Shawl-strap and fire-escape.....	J. D. Leo and J. H. Acton.....	381,631	June 19	1186	343	43	1362
Sheaf-carrier.....	W. A. Brown.....	389,136	Sept. 4	503	128	44	1166
Sheaf-carrier.....	C. H. and G. W. Elliott.....	379,212	Mar. 13	513	144	42	1069
Sheaf-carrier.....	G. H. Goetze.....	382,603	May 8	1106	281	43	731
Sheaf-carrier.....	A. Jewell.....	379,223	Mar. 13	526	147 148	42	1071
Sheaf-carrier.....	J. Miller.....	384,862	June 19	1532	398 399	43	1429
Sheaf-carrier.....	L. B. Willey.....	380,968	Apr. 10	1005	259	43	204
Shearing and punching machine.....	C. C. Echols.....	385,662	July 3	490	127	44	95
Shearing-machine. Power.....	L. L. Sagendorph and G. C. Keene.....	377,500	Feb. 7	233	56, 57	42	540
Shears.....							
See Pruning-shears. Sheep-shears.....	J. Reimert.....	391,859	Oct. 30	2358	640	45	493
Shears for cutting oval plates.....	P. H. Laufman, Jr.....	394,776	Dec. 18	1606	421	45	1402
Sheathing and lath. Combined wooden.....	T. H. Brown.....	387,967	Aug. 14	1168	317	44	805
Sheep shearing and tagging table.....	P. K. Dimick.....	389,063	Sept. 4	375	98	44	1144
Sheep-shearing-machine.....	G. Richardson.....	384,545	June 12	1054	275	43	1329
Sheep-shears.....	D. Cameron.....	376,233	Jan. 10	722	192	42	148
Sheet metal. Apparatus for making.....	E. Norton and J. G. Hodgson.....	382,319	May 8	654	167	43	614
Sheet-metal articles. Cushioned die for swaging.....	F. C. Cannon.....	385,905	July 10	866	229	44	178
Sheet-metal-bending machine.....	W. J. Bayner.....	388,471	Aug. 28	1968	528	44	972
Sheet-metal-bending machine.....	L. Coburn.....	390,346	Oct. 2	208	55	45	44
Sheet-metal-bending machine.....	G. R. Everson.....	383,391	May 22	2254	599	43	971
Sheet-metal-bending machine.....	E. R. Stasch.....	377,336	Jan. 31	2340	678	42	477
Sheet-metal blanks. Machine for making.....	C. W. Judson.....	383,302	May 22	2129	561 562	43	949
Sheet-metal box.....	W. H. Atkinson.....	386,765	July 24	2095	550 551	44	432
Sheet metal. Brake for bending.....	J. M. Robinson.....	393,583	Nov. 27	2063	540	45	1022
Sheet-metal can.....	H. A. Lee.....	393,566	Nov. 27	2040	534	45	1018

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Sheet-metal can	H. Miller	377,495	Feb. 7	222	53	42	538
Sheet-metal corrugating and edging machine	E. R. Stasch	382,277	May 1	585	148	43	621
Sheet metal. Device for forming letters and designs on	J. O'Conner	384,331	June 12	742	149	43	1270
Sheet metal. Die for shaping	O. W. Swift	383,081	May 15	1797	465	43	875
Sheet-metal-edging machine	W. J. Turner	389,912	Sept. 25	1702	450	44	1419
Sheet-metal folder	G. R. Everson	383,390	May 22	2252	599	43	970
Sheet-metal-folding machine	N. Koenig	380,580	Apr. 3	414	118	43	84
Sheet-metal-folding machine	C. Reising	377,863	Feb. 14	791	202	42	660
Sheet-metal joint	R. E. Goodrich	382,151	May 1	400	105	43	557
Sheet-metal knobs. Manufacture of	C. C. Andrews	376,502	Jan. 17	1104	289	42	226
Sheet metal. Manufacture of	E. Norton and J. G. Hodgson	382,321	May 8	660	168	43	645
Sheet metal. Manufacture of	J. Robertson	386,160	July 17	1216	324	44	253
Sheet metal. Means for embossing	A. Langerfeld	392,977	Nov. 13	1176	305	45	829
Sheet metal. Ornamentation of	J. Koebel	381,390	Apr. 17	1641	451	43	336
Sheet-metal pipe	A. J. and C. Lindemann	378,694	Feb. 28	2017	533	42	913
Sheet-metal pipe	J. B. Root	379,663	Mar. 20	1174	312	42	1203
Sheet-metal-polishing machine	T. Harper	392,799	Nov. 13	925	237	45	779
Sheet-metal-polishing machine	A. Johnston	392,036	Oct. 30	2615	710	45	541
Sheet-metal-puncturing machine	G. P. Waelde and H. G. Cery	388,604	Aug. 28	2155	578	44	1008
Sheet-metal-scroll cutter	A. O. Kittridge and B. Adriance	383,398	May 22	2264	602	43	973
Sheet-metal seam	E. J. Dolan	376,817	Jan. 24	1600	419	42	338
Sheet-metal shearing or punching machine	L. L. Sagendorph	377,780	Feb. 14	680	171	42	640
Sheet-metal splints. Manufacture of	J. E. Lee	376,666	Jan. 17	1353	355	42	273
Sheet-metal structure	W. Orraud P. S. Brown	383,759	May 29	2812	740	43	1088
Sheet metal to form meshes. Machine for slashing and expanding flat	J. F. Golding and G. B. Durkee	381,230	Apr. 17	1405	376	43	289
Sheet-metal tube	E. K. Coas	379,937	Mar. 27	1615	430	42	1298
Sheet-metal vessel	F. Haberman	390,591	Oct. 2	551	146	45	111
Sheet-metal vessel	F. A. Walsh	383,507	May 29	2144	648	43	1013
Sheet-metal vessels. Bushing for openings in	F. W. Judd	393,333	Nov. 20	1688	445	45	938
Sheet-metal vessels. Bushing for openings in	F. W. Judd	393,334	Nov. 20	1690	446	45	939
Shelf	S. J. Murphy	388,066	Aug. 21	1322	358	44	843
Shelf-fastener. Adjustable	H. D. Thatcher	379,252	Mar. 13	562	156	42	1078
Shelf. Revolving	C. Jewell	380,897	Apr. 10	900	241	43	184
Shelves. Book-support for	M. W. Harrington	388,674	Aug. 28	2257	605	41	1026
Shelves, &c. Support for	J. Seyster	385,530	July 3	299	77	44	60
Shelving. Adjustable	W. C. Peckham	392,061	Oct. 30	2656	722	45	551
Shell	J. W. Graydon	382,236	May 1	508	131	43	607
Shell	M. Von Förster	385,332	June 26	2253	577	43	1580
Shell	E. L. Zalinski	384,660	June 19	1226	324	43	1370
Shell-cutter	W. Stein	389,024	Sept. 4	320	84	44	1133
Shell. Explosive	E. Paulson	390,249	Oct. 2	77	22	45	19
Shell for explosives	J. W. Graydon	382,223	May 1	502	130	43	606
Shell for high explosives	W. T. Smith	384,646	June 19	1203	318	43	1366
Shell for high explosives	E. L. Zalinski	384,661	June 19	1229	325	43	1371
Shell. High-explosive	J. W. Graydon	382,224	May 1	504	130	43	606
Shell. High-explosive	J. W. Graydon	382,225	May 1	506	131	43	607
Shells. Multiple primer for	N. W. Pratt	388,787	Aug. 28	2419	653	44	1057
Sheller:							
See Corn-sheller.	Pea-sheller.						
Shield	E. Berkeley	391,397	Oct. 23	1710	455	45	351
Shield. Divisible bullet-proof	C. Adams	377,732	Feb. 14	577	149	42	619
Shield. Heart	H. Gross	389,745	Sept. 18	1444	378	44	1361
Shifting seat	C. C. Adelsperger	385,831	July 10	743	194	44	152
Shingle	H. C. Henderson	380,203	Mar. 27	1905	534	42	1372
Shingle-cutting machine	W. Goldie	386,878	July 31	2303	605	44	479
Shingle. Metallic	E. E. Barker	381,318	Apr. 17	1531	413	42	315
Shingle. Metallic	H. W. Harry	380,109	Mar. 27	1868	497	42	1347
Shingle. Metallic	W. E. Warren and R. S. Dudley	390,826	Oct. 9	876	232	45	179
Shingle-painting apparatus	L. Siebert	388,082	Aug. 21	1350	364	44	848
Shingle. Paper pressed	S. E. Trott	394,093	Dec. 4	430	116	45	1153
Shingle-sawing machine	W. A. Campbell	379,856	Mar. 20	1483	391	42	1263
Shingle-sawing machine	S. S. Morton	376,204	Jan. 10	684	181	42	140
Shingle-sawing machine	W. J. Perkins	380,346	Apr. 3	53	19	43	13
Shingle-sawing machine	W. J. Perkins	387,441	Aug. 7	360	92	44	643
Shingle-sawing machine	W. J. Perkins	391,643	Oct. 23	2040	552	45	420
Shingle-trimming machine	F. Batt	387,389	Aug. 7	267	73	44	627
Shingler's gage	F. P. Sanborn	390,403	Oct. 2	293	77	45	62
Shingling-gage	M. Slaue	383,597	May 29	2565	679	43	1038
Ship	J. Moffett	381,943	May 1	64	16	43	527
Ship-building	F. E. Kirby	390,892	Sept. 25	1674	442	44	1413
Ship for submarine observation	R. F. S. Belisle	385,656	July 3	484	125	44	94
Ship-signal. Electric	J. W. Dooley	378,876	Mar. 6	30	8	42	972
Ships. Apparatus for recovering valuable contents from sunken	J. H. Brown	388,257	Aug. 21	1647	440	44	904
Ships, &c. Construction of	W. H. Daniels	376,517	Jan. 17	1127	295	42	230
Ships, &c. Construction of	C. G. Lundborg	384,047	June 5	306	87	43	1179
Ships. Guard-cordon for the protection of	T. Favarger	391,362	Oct. 16	1656	438	45	332
Ship's keelson	J. McIntyre	393,713	Nov. 27	2262	593	45	1060
Ships, &c. Leak-stopper for	J. Richardson	385,572	July 3	362	94	44	72
Ship's log	E. E. Haskell	384,362	June 12	787	205	43	1278
Ship's log	W. S. Hogg	382,362	May 8	731	184	43	657

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Pr. g.	Vol.	Page.
Ship's log .....	O. Kustal .....	382,816	May 15	1401	{ 367 368 }	{ 43	798
Ships' logs. Rotating trolling device for .....	O. Kustal .....	387,168	July 31	2729	716	41	558
Ships. Pin-rail attachment for .....	P. Brown .....	392,099	Oct. 30	2727	740	45	565
Ships. Recovering valuable contents from sunken .....	J. H. Brown .....	388,256	Aug. 21	1643	{ 439 440 }	{ 44	904
Shipping appliance .....	G. A. Gemünden and A. F. Gärtner .....	380,199	Mar. 27	1989	533	42	1371
Shirt .....	J. Falkenberg .....	377,149	Jan. 31	2064	542	42	426
Shirt .....	C. and J. Falkenberg and M. Jones .....	393,548	Nov. 27	2022	529	45	1013
Shirt .....	T. J. Holmes .....	394,270	Dec. 11	796	211	45	1232
Shirt .....	A. V. Humphrey .....	390,673	Oct. 9	657	176	45	139
Shirts. Inserting bosoms in .....	C. S. Dean .....	386,425	July 17	1612	423	44	333
Shirts. Making .....	F. H. Powers .....	392,635	Nov. 13	679	{ 169 170 }	{ 45	731
Shoal-water indicator .....	P. Vigil and J. N. Revueltas .....	389,123	Sept. 4	485	124	44	1163
Shoe .....	O. B. Bradford .....	392,404	Nov. 6	342	84	45	658
Shoe .....	J. Condell .....	380,552	Apr. 3	372	106	43	76
Shoe .....	C. E. Diehl .....	387,948	Aug. 14	1140	306	44	799
Shoe .....	W. B. Hill .....	384,845	June 19	1509	{ 392 393 }	{ 43	1425
Shoe .....	J. J. Jordan .....	381,929	May 1	42	12	43	523
Shoe .....	J. J. Jordan .....	381,930	May 1	43	12	43	523
Shoe .....	C. T. Lee .....	381,259	Apr. 17	1452	391	43	298
Shoe .....	J. Lindstrom .....	379,172	Mar. 6	438	124	42	1049
Shoe .....	J. Robb .....	391,485	Oct. 23	1830	490	45	375
Shoe .....	C. A. Schaefer .....	393,589	Nov. 27	2073	542	45	1024
Shoe .....	H. Witzel .....	383,090	May 15	1818	{ 475 476 }	{ 43	879
Shoe .....	J. Wolfinger .....	393,284	Nov. 20	1621	425	45	925
Shoe .....	M. Yeagle .....	384,224	June 5	567	155	43	1231
Shoe and stocking. Combined .....	D. Basch .....	387,635	July 31	2526	664	44	523
Shoe. Bathing .....	B. W. Howard .....	393,563	Nov. 27	2037	533	45	1017
Shoe-clasp .....	W. S. Settle .....	389,765	Sept. 18	1466	381	44	1365
Shoe-clasp .....	J. N. Opel .....	388,909	Sept. 4	155	41	41	1102
Shoe-clasp .....	H. S. Pullman .....	391,557	Oct. 23	1926	519	45	397
Shoe-clasp .....	J. J. Unbehend .....	384,339	June 12	752	197	42	1272
Shoe-clasp .....	J. Zimmermann .....	380,305	Mar. 27	2125	569	42	1399
Shoe-fastener .....	E. Maynz .....	391,906	Oct. 30	2428	656	45	508
Shoe-fastening .....	G. H. Cursen .....	385,818	July 10	772	204	44	157
Shoe-fastening .....	G. Knopp .....	382,651	May 8	1176	304	43	745
Shoe-fastening .....	G. T. Stevens .....	395,088	Dec. 25	2102	545	45	1506
Shoe-heel .....	A. Farina .....	381,686	Apr. 24	2079	543	43	441
Shoe-jack .....	W. C. Davis .....	383,807	July 31	2290	602	44	477
Shoe-lace clasp .....	F. A. Morrill and H. M. Wilson .....	391,330	Oct. 16	1611	426	45	325
Shoe-last. Reversible .....	J. Gray .....	395,133	Dec. 25	2185	563	45	1520
Shoe-nail .....	D. S. Grant .....	377,895	Feb. 14	721	182	42	647
Shoe-nail .....	J. E. Kimball .....	386,435	July 17	1622	426	44	335
Shoe-nail .....	L. Stephens .....	377,503	Feb. 7	241	58	42	541
Shoe-nail strip .....	D. S. Grant .....	377,804	Feb. 14	721	182	42	647
Shoe-nailing machine .....	O. R. Chaplin .....	391,020	Oct. 16	1184	{ 314 315 }	{ 45	243
Shoe. Non-slipping .....	F. A. King and G. F. Brand .....	377,431	Feb. 7	128	27	42	519
Shoe or gaiter .....	J. A. Kelly .....	380,229	Mar. 27	2108	564	42	1395
Shoe or glove fastener .....	A. T. Perrine .....	383,762	May 29	2819	742	43	1089
Shoe or slipper .....	L. A. Merrithew .....	386,840	July 31	2251	592	44	469
Shoe or slipper .....	A. Zimmermann .....	377,822	Feb. 14	739	187	42	650
Shoe-rest .....	C. W. Huntington and E. A. Tracy .....	388,685	Aug. 28	2272	610	44	1029
Shoe-sole-buffing machine .....	J. W. Carver .....	391,581	Oct. 23	1958	528	45	403
Shoe-sole-cutting machine .....	W. F. Wellman .....	391,287	Oct. 16	1558	414	45	315
Shoe-soles. Machine for splitting .....	J. F. La Borde .....	394,277	Dec. 11	803	{ 213 214 }	{ 45	1234
Shoe-tongue fastening .....	C. F. Crowell .....	385,045	June 26	1815	466	43	1493
Shoe-upper-turning machine .....	F. D. Walden .....	380,959	Apr. 10	992	263	43	202
Shoes, gloves, &c. Fastening device for .....	G. F. Krieger .....	380,327	Apr. 3	28	8, 9	43	8
Shoes. Machine for cutting buttons from .....	T. E. Lewis .....	390,868	Oct. 9	933	245	45	189
Shoes. Machine for treeing .....	G. W. Copeland and J. E. Crisp .....	383,279	May 22	2094	{ 551 552 553 554 }	{ 43	942
Shoes. Making .....	J. Painchaud and J. Gédou .....	391,068	Oct. 16	1255	333	45	257
Shoes. Polishing compound for the soles of .....	C. L. Leonard .....	378,325	Feb. 21	1480	387	42	799
Shoe-front .....	J. Gooch .....	384,361	Apr. 17	1597	427	43	327
Shoe-protector .....	T. O'Connell .....	384,173	June 5	492	135	43	1216
Short-hand machines. Paper-reel for .....	C. S. Olcott and J. P. Ellacott .....	381,506	Apr. 17	1822	482	43	372
Shoulder-brace .....	L. T. J. Lubin .....	380,265	Mar. 27	2076	555	42	1390
Shoulder-brace .....	M. A. Van Alstine .....	393,139	Nov. 20	1390	363	45	879
Shoulder-pad .....	W. B. Haskins .....	378,394	Feb. 21	1571	412	42	818
Shovel .....	G. H. Gordon .....	392,267	Nov. 6	192	33	45	619
Shovel-blank .....	J. J. Johnston .....	385,810	July 10	712	188	44	147
Shovel-blanks. Machine for cutting .....	H. M. Myers .....	385,820	July 10	725	189	44	149
Shovel-blanks. Machine for cutting and splitting .....	J. J. Johnston .....	385,811	July 10	713	186	44	147
Shovel-blanks. Machine for splitting the tangs of .....	H. M. Myers .....	389,239	Sept. 11	682	173	44	1209
Shovel-blanks. Making .....	J. J. Johnston .....	385,808	July 10	710	{ 184 185 }	{ 41	146
Shovel-blanks. Making .....	H. M. Myers .....	385,819	July 10	724	189	44	149
Shovel-blanks. Making .....	H. M. Myers .....	385,821	July 10	726	190	44	149
Shovel-blanks. Manufacture of .....	J. M. and H. A. Reed .....	392,134	Oct. 30	2778	{ 754 755 }	{ 45	576
Shovel-blanks. Manufacture of .....	J. M. and H. A. Reed .....	392,135	Oct. 30	2780	755	45	576
Shovel-handle and tamping-bar. Combined .....	J. M. Jackson .....	394,366	Dec. 11	946	248	45	1262
Shovels, &c. Making .....	C. A. Maynard .....	391,259	Oct. 16	1515	402	45	307
Shovels, &c. Making blanks for .....	J. J. Johnston .....	385,809	July 10	711	{ 185 186 }	{ 44	147

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Shovels, spades, &c. Manufacture of.....	C. A. Maynard.....	389,934	Sept. 25	1731	458	44	1425
Shovels, spades, &c. Manufacture of.....	J. C. Russell.....	376,398	Jan. 10	941	246	42	189
Shoveling device. Steam.....	A. Meyers.....	383,584	May 29	2552	{ 674 675 }	43	1034
Show-case.....	F. C. Cutting.....	383,867	June 5	26	8	43	1126
Show-case.....	E. J. Fletcher.....	390,581	Oct. 2	537	141	45	108
Show-case.....	E. J. Fletcher.....	390,582	Oct. 2	539	141	45	108
Show-case.....	F. X. Ganter.....	394,481	Dec. 11	1100	286	45	1290
Show-case.....	J. J. Kelly.....	378,594	Feb. 28	1873	495	42	886
Show-case.....	H. King.....	392,125	Oct. 30	2765	751	45	573
Show-case.....	H. B. King.....	377,857	Feb. 14	783	200	42	659
Show-case.....	A. McNeill.....	386,550	July 24	1808	{ 477 478 }	41	377
Show-case.....	A. McNeill.....	391,630	Oct. 23	2024	547	45	417
Show-case.....	H. Stern.....	381,961	May 1	87	22	43	531
Show-case and bin. Combined.....	W. V. Young.....	335,106	Dec. 25	2133	551	45	1512
Show-case. Cabinet.....	C. Baum.....	375,960	Jan. 3	348	13	42	71
Show-case for displaying umbrellas, &c.....	D. F. Hale.....	391,469	Oct. 23	1810	484	45	371
Show-case for entomological and other specimens.....	C. F. McGlashan.....	380,762	Apr. 10	695	192	43	147
Show-case for street display.....	R. Schmeling.....	392,692	Nov. 13	759	193	45	746
Show-case. Revolving.....	C. H. Tully.....	382,445	May 8	854	218	43	681
Show-rack.....	C. E. McElroy.....	382,542	May 8	1011	258	43	712
Show-rack.....	T. F. McGann.....	394,595	Dec. 18	1297	340	45	1341
Show-stand.....	G. E. Lane.....	392,811	Nov. 13	916	242	45	783
Show-stand.....	A. F. Smith.....	381,437	Apr. 17	1712	{ 458 459 }	43	351
Show-stand.....	C. Tooley.....	375,844	Jan. 3	159	45	42	36
Show-stand or case.....	S. C. Swett.....	379,139	Mar. 6	401	113	42	1041
Shutter.....	J. T. Miller.....	380,914	Apr. 10	919	246	43	188
Shutter. Adjustable.....	C. J. Keating.....	382,707	May 15	1257	329	43	769
Shutter-blower.....	J. A. Dill.....	394,253	Dec. 11	766	203	45	1286
Shutter-blower.....	H. W. Steiner.....	385,732	July 10	597	155	44	124
Shutter-blower.....	A. A. Wheelock.....	378,346	Feb. 21	1512	395	42	806
Shutter-blower or fastener. Adjustable.....	W. F. Shaw.....	393,929	Dec. 4	288	78	45	1127
Shutter-fastener.....	J. A. Bachman.....	380,738	Apr. 10	653	181	43	139
Shutter-fastener.....	J. M. Cornell.....	386,423	July 17	1610	423	44	332
Shutter-fastener.....	P. O. Guérin.....	379,695	Mar. 20	1226	326	42	1213
Shutter-fastener.....	R. Steele.....	391,207	Oct. 16	1443	386	45	294
Shutter-operating mechanism.....	G. Andreen.....	391,573	Oct. 23	1946	{ 524 525 }	45	401
Shutter. Rolling.....	J. G. Wilson.....	392,656	Nov. 13	708	178	45	736
Shutter. Window.....	J. E. Phillips.....	377,771	Feb. 14	663	166	42	637
Shutter-worker.....	W. Benner.....	391,678	Oct. 23	2084	{ 564 565 }	45	429
Shutter-worker.....	L. A. and O. L. Dosch.....	378,388	Feb. 21	1563	409	42	816
Shutter-worker.....	J. A. Edes.....	379,380	Mar. 13	749	203	42	1113
Shutter-worker.....	C. L. Gorrell and T. A. Hays.....	388,965	Sept. 4	234	62	44	1117
Shutter-worker.....	W. H. Hendrick.....	383,459	July 3	189	50	44	38
Shutter-worker.....	F. W. Kelly.....	391,898	Oct. 30	2414	653	45	504
Shutter-worker.....	J. K. McGulkin.....	376,539	Jan. 17	1152	302	42	235
Shutter-worker.....	J. K. McGulkin.....	392,214	Nov. 6	53	14	45	605
Shutter-worker.....	J. F. Shatsick.....	393,401	Nov. 27	1787	472	45	966
Shutter-worker.....	G. Warburton.....	392,896	Nov. 13	1057	273	45	807
Shutter worker and fastener.....	D. and W. Stephens.....	392,472	Nov. 6	440	110	45	677
Sickle.....	P. Lesson.....	392,041	Oct. 30	2627	714	45	546
Sickle-bar.....	C. B. Turner.....	392,833	Nov. 13	979	251	45	790
Sickle-grinder.....	J. W. Gamble and L. M. Rutt.....	385,176	June 26	1999	512	43	1531
Sickle-sections during tempering. Platen for holding.....	F. Meyer.....	395,164	Dec. 25	2240	576	45	1530
Sidewalk and similar construction.....	J. McGillivray.....	388,966	Sept. 4	262	69	44	1123
Sidewalks. Composition for.....	L. N. Beauchemin.....	387,390	Aug. 7	289	.....	44	627
Siding-gage.....	A. C. L. Dague.....	390,459	Oct. 2	299	94	45	77
Siding-gage.....	H. Russell.....	377,685	Jan. 31	1983	519	42	409
Siding hook and gage. Combined.....	B. B. Cutler.....	389,561	Sept. 11	1067	281	44	1280
Sieve.....	H. Simon.....	390,913	Oct. 9	1000	262	45	202
Sieve. Box.....	A. F. Purefoy.....	376,450	Jan. 17	1031	270	42	213
Sieve. Flour.....	H. Martin.....	382,541	May 8	1011	258	43	711
Sifter.....	L. M. Nixdorff.....	388,575	Aug. 28	2110	566	44	999
Sifter.....	A. F. Purefoy.....	376,449	Jan. 17	1031	270	42	212
Sifter. Ash.....	O. J. Bagley.....	387,034	July 31	2525	664	44	523
Sifter. Ash.....	J. E. Crosby.....	383,173	May 22	1935	{ 507 508 }	43	913
Sifter. Ash.....	H. E. Griffith.....	383,571	May 29	2535	669	43	1031
Sifter. Ash.....	M. Lynch.....	383,312	May 22	2140	565	43	951
Sifter. Ash.....	J. A. Murphy.....	379,322	Mar. 13	668	181	42	1098
Sifter. Coal.....	W. Butcher and C. G. Bailey.....	379,267	Mar. 13	581	161	42	1081
Sifter. Coal.....	F. H. Perry.....	383,412	May 22	2290	608	43	977
Sifter. Household.....	R. Kaiser.....	394,862	Dec. 18	1753	454	45	1429
Sifters. Driving-gear for flour.....	G. Daverio.....	380,249	Mar. 27	2058	550	42	1386
Sight-feed lubricator.....	P. A. Bennett.....	390,584	Oct. 2	542	142	45	109
Sight-feed lubricator.....	E. Luukneheimer.....	386,596	July 24	1864	492	44	338
Sign.....	W. H. Coote.....	385,912	July 10	872	230	44	179
Sign.....	E. A. Dubey.....	380,026	Mar. 27	1751	468	42	1324
Sign.....	A. F. Foans.....	378,198	Feb. 21	1281	338	42	763
Sign.....	J. A. Haag.....	390,776	Oct. 9	807	214	45	166
Sign.....	J. A. Haag.....	390,777	Oct. 9	808	215	45	167
Sign.....	C. W. Shonk.....	376,919	Jan. 24	1739	457	42	355
Sign. Advertising.....	L. A. Deuther.....	381,766	Apr. 24	2190	572	43	462
Sign, advertising-card, &c.....	T. P. Heinemann.....	386,720	July 24	2124	558	44	437
Sign and indicator. Adjustable business.....	C. N. Hammond.....	389,074	Sept. 4	388	101	44	1147
Sign-box. Illuminated.....	G. A. Meyer.....	393,779	Dec. 4	64	18	45	1085
Sign. Druggist's.....	J. L. Dawes and W. G. Walter.....	383,445	May 29	2338	621	43	593
Sign or advertising-card.....	T. P. Heinemann.....	386,883	July 31	2309	608	44	480
Sign Window.....	G. H. Babcock. (Reissue).....	10,952	Aug. 21	1854	493	44	942

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Signal:							
See Block-signal.	Railway-crossing signal.						
Car-signal.	Railway-crossing alarm-signal.						
Desk-signal.	Signal.						
Electric signal.	Railway danger-signal.						
Elevator-signal.	Railway-freight-train signal.						
Fire-signal.	Signal.						
Fishing-reel signal.	Railway semaphore-signal.						
Flash-light signal.	Signal.						
Fog-signal.	Railway-station signal.						
Lightning flash-signal.	Semaphore-signal.						
Marine signal.	Ship-signal.						
Pyrotechnic signal.	Station-signal.						
Railway-signal.	Switch-signal.						
Railway-bridge danger-signal.	Thermostatic signal.						
	Train-signal.						
	Train-order signal.						
Signal apparatus. Electrical.	J. R. De Mier.	380,646	Apr. 3	505	141	43	103
Signal apparatus. Electro-mechanical.	W. W. Le Grande	377,626	Feb. 7	410	{ 104 105 }	42	574
Signal apparatus. Police.	J. C. Wilson	386,175	July 17	1236	330	44	257
Signal-box. Non-interfering.	F. W. Cole	380,022	Mar. 27	1745	467	42	1322
Signal circuit. Test.	C. E. Scribner	385,482	July 3	225	58	44	45
Signal-compensator.	J. J. Turner	385,625	June 26	1778	459	43	1487
Signal-holder.	C. F. Hurley	394,983	Dec. 25	1958	504	45	1476
Signal-lines. Compensator for.	A. A. Strom	385,884	July 10	832	220	44	169
Signal-rods. Coupling for.	J. T. Hambay	393,557	Nov. 27	2030	531	45	1015
Signal system. Automatic electric block.	T. D. Williams and J. S. Luecock	384,810	June 19	1414	{ 378 379 }	43	1413
Signal system. Police electric.	C. E. Scribner	384,476	June 12	938	244	43	1308
Signal-transmitter.	J. C. Wilson	395,101	Dec. 25	2127	{ 549 550 }	45	1510
Signal-transmitter.	J. C. Wilson	395,102	Dec. 25	2128	550	45	1511
Signal-transmitter. Electric.	W. C. Thompson	385,388	July 3	72	20	44	16
Signals. Apparatus for operating automatic block.	T. D. Williams and J. S. Luecock	384,811	June 19	1440	{ 379 380 }	43	1414
Signaling apparatus.	T. Shaw	384,792	June 19	1418	372	43	1408
Signaling apparatus.	W. Trafford	392,766	Nov. 13	871	{ 223 224 }	45	769
Signaling apparatus. Electric.	G. F. Milliken	394,784	Dec. 18	1619	425	45	1405
Signaling apparatus. Electric.	M. W. Parrish	381,576	Apr. 21	1921	506	43	409
Signaling apparatus. Electric train.	J. R. De Mier	381,343	Apr. 17	1573	42	43	323
Signaling apparatus. Electric train.	J. R. De Mier	381,344	Apr. 17	1575	422	43	324
Signaling apparatus. Individual.	C. N. Talbot	392,232	Nov. 13	975	{ 250 251 }	45	789
Signaling apparatus. Magneto.	M. W. Long	392,443	Nov. 6	395	97, 98	45	668
Signaling apparatus. Semaphore.	A. Barnes	385,227	June 26	2074	531	43	1547
Signaling apparatus. Telegraphic.	J. B. Willis	381,738	Apr. 24	2154	{ 563 564 }	43	455
Signaling apparatus. Train.	C. F. West	387,026	July 31	2516	661	44	521
Signaling at sea.	D. Ruggles	382,056	May 1	271	.....	43	563
Signaling-box. Electric.	W. D. Browne	383,941	June 5	150	44	43	1149
Signaling device.	J. Sax	391,276	Oct. 16	1544	409	45	312
Signaling device for mines. Electro-magnetic.	L. M. Bullitt and O. C. Greeno	380,382	Apr. 3	116	34	43	25
Signaling. Electric.	C. Ader	388,008	Aug. 21	1233	335	44	827
Signaling. Municipal.	M. Martin	380,655	Apr. 3	520	144	43	105
Signaling system. Electrical auxiliary.	G. F. Milliken and H. B. Lytle	377,083	Jan. 31	1977	519	42	408
Signaling system. Hotel.	A. Barrett and J. Zentner	390,833	Oct. 9	887	236	45	1475
Signature-press.	E. A. Hart	394,977	Dec. 25	1930	502	45	1481
Silicates and carbonates. Making alkaline.	A. Kayser	376,409	Jan. 10	959	251	42	192
Silicates. Making alkaline.	A. Kayser	376,410	Jan. 10	961	251	42	192
Silk and method of and apparatus for making the same. Artificial.	H. De Chardonnet.	394,559	Dec. 18	1232	{ 322 323 }	45	1328
Singletree.	J. R. Freeland	383,351	May 22	2192	579	43	961
Singletree.	W. S. Harris	386,707	July 24	2017	532	44	418
Singletree-hook.	J. Macphail and F. M. Needham	376,806	Jan. 24	1584	415	42	326
Singletree-iron.	J. L. Blake	394,445	Dec. 41	1051	275	45	1281
Sink-cleaner.	R. Y. Kirkland and J. Reed	388,880	Sept. 4	112	30	44	1094
Sink-trap.	M. W. Scannell.	394,213	Dec. 11	701	187	45	1214
Siphon.	G. W. Arper	381,521	Apr. 24	1851	489	43	395
Siphon.	F. H. Gile	384,251	June 12	619	167	43	1249
Siphon.	M. Siersdorfer	387,455	Aug. 7	379	99	44	647
Siphon.	C. N. Tyler	378,211	Feb. 28	2187	582	42	946
Siphon for starting the flow of liquids.	M. Siersdorfer	383,153	May 22	1910	499	43	908
Sirup and beer from maize. Making.	A. E. Feroc. (Reissue).	10,925	May 1	606	{ 153 154 }	43	624
Sirup-gage.	J. Conner.	384,680	June 19	1257	330	43	1376
Skate.	E. H. Barney	378,424	Feb. 28	1621	426	42	834
Skate.	J. P. Becker, Jr.	389,998	Sept. 25	1822	483	44	1443
Skate.	J. Forbes	391,135	Oct. 16	1344	{ 358 359 }	45	274
Skate.	J. Forbes	391,136	Oct. 16	1347	359	45	274
Skate.	J. A. La Chaine	388,693	Aug. 28	2285	614	44	1041
Skate.	J. A. Whelpley	377,703	Feb. 7	531	136	42	594
Skate.	J. A. Whelpley	377,704	Feb. 7	532	136	42	595
Skate.	J. H. Young	388,170	Aug. 21	1516	404	44	877
Skate-clamp.	W. L. Parmelee	380,456	Apr. 3	223	61	43	45
Skate-fastening.	E. H. Barney	377,734	Feb. 14	579	149	42	619
Skate-runner blank.	E. H. Barney	378,488	Feb. 28	1718	454	42	855
Skate. Snow.	P. Conradson	382,254	May 1	556	140	43	616
Skein-reel.	J. Garsed.	381,771	Apr. 24	2195	574	43	463
Skewers. Machine for pointing.	L. B. McNutt.	378,934	Mar. 6	106	30, 31	42	987
Skimmer.	G. W. Gulledege	391,294	Oct. 30	2409	652	45	502

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Skimmer	G. K. Knowlton	387,236	Aug. 7	54	12	44	582
Skin staking and softening machine	G. V. Anderson	380,239	Mar. 27	2043	546	42	1383
Skins. Alum-tanned	A. Warter and H. C. Koegel	381,734	Apr. 24	2149		43	454
Skins and other leather. Treating morocco	C. M. Kimball	381,933	May 1	47	13	43	524
Skins. Apparatus for treating	C. M. Kimball	381,932	May 1	46	13	43	524
Skins. Machine for staking and softening	G. V. Anderson	391,221	Oct. 16	1462	390	45	298
Skirt and bustle. Combined	E. K. Miller	377,401	Feb. 7	52	14	42	506
Skirt supporting spring	L. Moschowitz	394,593	Dec. 18	1294	339	45	1340
Skirt-waistband. Woven	C. Vorwerk	383,842	May 29	2946	780	43	1113
Skittle-alley. Convertible	H. Mitzschke	390,247	Oct. 2	76	22	45	18
Skiving-machine	E. Gott	375,811	Jan. 3	118	34	42	28
Skiving-machines. Knife-sharpening attachment for	P. B. Clark and G. J. Klingler	381,020	June 5	261	74.75	43	1172
Skylights, conservatories, &c. Bar for	G. Hayes	385,352	July 3	18	6	44	6
Slag-furnace	O. T. X. Adams	379,436	Mar. 13	829	224	42	1130
Slag-furnace	O. T. X. Adams	379,527	Mar. 13	967	261	42	1156
Slag-furnace	O. T. X. Adams	379,883	Mar. 20	1533	404	42	1273
Slag-furnace	P. H. Adams, Jr	379,437	Mar. 13	830	224	42	1130
Slag-furnace	P. H. Adams, Jr	379,625	Mar. 20	1125	298	42	1193
Slag-furnace	J. E. Peck	379,411	Mar. 13	793	213	42	1122
Slag-furnace	J. E. Peck	379,600	Mar. 20	1081	289	42	1185
Slag-furnace	O. B. Peck	379,412	Mar. 13	795	214	42	1123
Slag-furnace	O. B. Peck	379,601	Mar. 20	1086	289	42	1185
Slag-furnace	O. B. Peck	379,720	Mar. 20	1262	337	42	1221
Slag or material from smelting-furnaces. Apparatus for treating molten	O. B. Peck	392,454	Nov. 6	413	103	45	672
Slags. Separating metals, matte, or metallic compounds from molten	O. B. Peck	392,455	Nov. 6	416	103	45	673
Slate and ruler. Combined	L. M. Dyer	382,413	May 8	803	205	43	672
Slate and ruler therefor. School	M. W. Fleming and C. R. Le Sauvage	383,945	June 5	154	45	43	1150
Slate-cleaner	A. G. Bradish	386,574	July 24	1837	485	41	383
Slate-cleaner	J. D. Clemmons	395,121	Dec. 25	2167	559	45	1517
Slate frames. Machine for making school	G. L. Knauss	383,955	June 5	167	49.50	43	1152
Slate grinding or dressing machine	S. S. Marshall	376,537	Jan. 17	1150	302	42	235
Slate-picker. Automatic	E. B. Cox and S. Salmon	382,215	May 1	490	127	43	604
Slate. School	J. Haekenberg	388,129	Aug. 21	1451	389	44	866
Slates. Frame for school	D. Scrymgeour	376,786	Jan. 24	1551	407	42	320
Slates. Muffled frame for school	G. Gray	381,363	Apr. 17	1600	428	43	328
Slating. Carbon	A. J. Blood and W. J. Cole	392,305	Nov. 6	182	47	45	628
Slats. Device for repairing broken	A. J. Dennis	379,688	Mar. 20	1216	322	42	1211
Sled	S. L. Allen	381,665	Apr. 24	2049	536	43	435
Sled	J. A. Crandall	376,585	Jan. 17	1213	320	42	248
Sled	W. Gilchrist	390,588	Oct. 2	547	144	45	110
Sled	G. Gog, Sr.	389,218	Sept. 11	630	162	44	1199
Sled	J. T. Scott	379,130	Mar. 6	389	110	42	1039
Sled	K. Wenzel	390,048	Sept. 25	1898	500	41	1458
Sled. Bob	F. L. Beard	376,227	Jan. 10	715	190	42	147
Sled. Bob	T. G. Mandt	390,088	Sept. 25	1962	592	44	1472
Sled. Bob	M. S. Tyler	376,492	Jan. 17	1089	286	42	224
Sled-brake	A. Anderson	391,874	Oct. 30	2381	646	45	498
Sled-brake	T. Gillogley	389,700	Sept. 18	1379	361	44	1347
Sled-brake	J. R. Hoyt	376,197	Jan. 10	670	177	42	138
Sled-brake	H. C. Johnson	392,341	Nov. 6	242	62	45	640
Sled-brake	M. House	394,012	Dec. 4	404	169	45	1148
Sled-brake	I. C. Thompson	384,548	June 12	1061	276	43	1330
Sled-brake	J. Valind	393,731	Nov. 27	2285	600	45	1065
Sled. Child's	J. F. Pratt and W. Chase	380,693	Apr. 10	589	162	43	127
Sled. Coasting	W. J. Baird	375,914	Jan. 3	249	68	42	52
Sled. Coasting	J. D. Wilson	385,652	July 3	480	124	44	93
Sled. Dumping	R. Gregg	388,192	Aug. 21	1548	412	44	883
Sled-roads. Device for making	H. B. Frey	388,407	Aug. 28	1880	502	41	953
Sled-runner. Adjustable	J. C. Frey	389,214	Sept. 11	627	160	44	1198
Sleds. Coupler for bob	M. Cronin	377,739	Feb. 14	585	151	42	620
Sleeve-holder	J. R. and J. Ferguson	391,307	Oct. 16	1583	420	45	319
Sleeve-stay	A. M. Terry	380,063	Mar. 27	1800	481	42	1334
Sleigh	D. S. Anderson	378,821	Feb. 28	2207	588	42	949
Sleigh	S. R. Bailey	379,303	Mar. 13	640	174	42	1092
Sleigh	A. Berry	389,869	Sept. 25	1637	434	44	1405
Sleigh	F. Burlingham	391,578	Oct. 23	1954	526	45	402
Sleigh	J. W. and H. Cox	388,534	Aug. 28	2053	552	44	988
Sleigh	A. Hurtubise	388,878	Sept. 4	110	29	44	1093
Sleigh	R. E. Leo	390,488	Oct. 2	409	105	45	84
Sleigh	R. E. Leo	393,988	Dec. 4	374	101	45	1143
Sleigh	J. Mack	389,397	Sept. 11	909	238	44	1253
Sleigh	W. S. Marble	383,401	May 22	2270	603	43	974
Sleigh	F. W. Meyer	387,528	Aug. 7	488	128	44	668
Sleigh	F. W. Meyer	394,382	Dec. 11	966	254	45	1266
Sleigh	C. Parks	375,767	Jan. 3	63	18	42	16
Sleigh	N. G. Reynolds	380,819	Apr. 10	775	212	43	162
Sleigh	A. H. Sawyer	394,726	Dec. 18	1510	395	45	1383
Sleigh	H. J. Simon	393,863	Dec. 4	190	52	45	1108
Sleigh	S. Wheeler	393,493	Nov. 27	1934	506	45	993
Sleigh. Bob	N. H. and J. H. Bloom	390,747	Oct. 9	768	204	45	159
Sleigh. Bob	J. W. Shourds	384,724	June 19	1324	345	43	1388
Sleigh. Bob	M. D. Williams	382,926	May 15	1545	405	43	828
Sleigh-knee	A. Postick	380,172	Mar. 27	1951	521	42	1364
Sleigh-knee	J. J. Cobb	384,128	June 5	422	117	43	1202
Sleigh-knee	O. L. Dodge	387,950	Aug. 14	1147	308	44	800
Sleigh-knee	J. F. Hennessy	379,394	Mar. 13	767	207	42	1117
Sleigh-knee	E. King	379,170	Mar. 6	436	123	42	1049



## Alphabetical list of inventions.—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Sleigh-knee .....	H. P. Titus .....	383,259	May 22	2066	542	43	938
Sleigh-knee .....	H. and H. Wesle .....	382,397	May 8	781	198	43	667
Sleigh-runner .....	E. K. Van Gorden .....	385,289	June 26	2185	559	43	1568
Sleighs. Shifting-bar for .....	A. T. McDonel .....	387,896	Aug. 14	1049	275	44	760
Slideway .....	H. R. Matatas .....	376,671	Jan. 17	1358	357	42	274
Sliding gate .....	A. W. Meek .....	376,717	Jan. 17	1431	376	42	288
Sliding gate .....	W. H. White .....	380,613	Apr. 3	462	131	43	94
Sliding or rolling gate .....	J. M. Vanover .....	379,918	Mar. 20	1583	417	42	1281
Slimer and settler .....	T. H. Minter .....	382,433	May 8	832	213	43	678
Sling and truck combined .....	F. Hohorst .....	379,870	Mar. 20	1516	399	42	1269
Sling. Trip .....	J. Byrne .....	388,021	Aug. 21	1251	340	44	830
Slip and shrinkage gago .....	H. C. Balsbaugh .....	382,854	May 15	1447	381	43	808
Slipper. Moccasin .....	J. Hickson .....	377,757	Feb. 14	615	159	42	625
Slipper. Wigwam .....	D. Dudley .....	391,232	Oct. 16	1480	393	45	300
Slubbing and roving frames. Differential motion for .....	S. Tweedale .....	386,906	July 31	2347	617	44	488
Sluice-box .....	J. H. Rae .....	386,030	July 10	1021	271	44	208
Smelting-furnace .....	O. B. Peck .....	385,424	July 3	135	36	41	28
Smelting pyrites .....	J. Dixon .....	386,629	July 24	1905	504	44	398
Smoke and spark carrier .....	S. Soller .....	392,231	Nov. 6	60	19	45	609
Smoke-condenser .....	B. Roberts .....	382,665	May 8	1198	311	43	749
Smoke-consumer .....	E. Dobson .....	387,806	Aug. 14	1001	261	44	772
Smoke-consumer .....	F. Leadbeater .....	388,885	Sept. 4	121	33	44	1095
Smoke-consumer .....	R. H. F. Sewall .....	387,661	Aug. 14	704	181	44	714
Smoke-consumer .....	G. F. Tinkham .....	390,193	Sept. 25	2112	563	44	1503
Smoke-consuming furnace .....	R. Affeltrauger .....	384,818	June 19	1467	383	43	1416
Smoke-consuming furnace .....	W. H. Heeson .....	378,006	Feb. 14	1001	262	42	702
Smoke-consuming furnace .....	R. W. Hewett .....	376,822	Jan. 24	1605	420	42	329
Smoke-consuming furnace .....	J. Keane .....	378,096	Feb. 21	1125	294	42	735
Smoke-consuming furnace .....	J. D. Leo .....	383,310	May 22	2138	564	43	950
Smoke-consuming furnace .....	W. J. Rafferty .....	390,252	Oct. 2	80	23	45	19
Smoke-consuming furnace .....	M. H. Steele .....	393,182	Nov. 20	1460	381	45	893
Smoke-jack. Self-cleaning .....	Z. B. Fifield .....	383,875	June 5	35	12	43	1128
Smoke-preventer .....	S. E. Flint .....	392,549	Nov. 6	545	137	45	698
Smoke-preventing furnace .....	D. P. Kayner .....	391,655	Dec. 18	1396	364	45	1358
Smoke-stack .....	C. S. Roe .....	387,568	Aug. 7	568	148	44	681
Smoke-stack and attachment .....	B. Vitalis .....	393,194	Nov. 20	1484	387	45	897
Smokeless furnace .....	D. L. Osborne .....	390,798	Oct. 9	834	222	45	171
Smoking-pipe .....	G. H. Wartman .....	392,768	Nov. 13	878	224	45	770
Smoothing and polishing iron. Combined .....	W. D. Gold .....	384,904	June 19	1588	413	43	1439
Snit-machine .....	F. Prinz .....	380,348	Apr. 3	61	21, 22	43	15
Snap-hook .....	J. M. Basinger .....	383,336	May 22	2167	573	43	956
Snap-hook .....	O. V. Blazier .....	393,138	Nov. 20	1399	366	45	880
Snap-hook .....	E. Bradley .....	388,254	Aug. 21	1639	438	44	903
Snap-hook .....	E. Crippen and W. King .....	380,997	Apr. 10	1056	279	43	213
Snap-hook .....	A. L. Hitchcock .....	377,550	Feb. 7	315	80	42	555
Snap-hook .....	E. L. Howe .....	382,611	May 8	116	286	43	732
Snap-hook .....	T. H. Humphreys .....	380,286	Mar. 27	2103	562	42	1395
Snap-hook .....	J. Letchworth .....	380,124	Mar. 27	1892	504	42	1352
Snap-hook .....	J. L. Martin .....	380,687	Apr. 10	582	159	43	126
Snap-hook .....	C. E. McClintock .....	394,508	Dec. 18	1302	341	45	1342
Snap-hook .....	H. McPherson .....	384,992	June 26	1714	445	43	1473
Snap-hook .....	G. D. Mosher .....	376,040	Jan. 3	439	117	42	88
Snap-hook .....	D. L. Smith .....	382,495	May 8	933	237	43	696
Snap-hook .....	D. L. Smith .....	389,329	Sept. 11	808	206	44	1234
Snap-hook .....	E. A. and D. L. Smith .....	385,579	July 3	371	96	44	74
Snap-hook .....	W. H. Tyler .....	390,629	Oct. 2	596	158	45	120
Snap-hook .....	E. A. Wilson .....	381,739	Apr. 24	2155	564	43	455
Snap-hook and buckle. Combined .....	O. P. Letchworth .....	392,926	Nov. 13	1096	284	45	814
Snatch-block .....	T. R. Ferrall .....	389,557	Sept. 18	1147	301	44	1304
Snatch-block .....	H. V. Hartz .....	387,071	July 31	2581	679	44	533
Snatch-block .....	W. McBride .....	394,499	Dec. 11	1124	292	45	1294
Snow-excavator .....	W. O. Barnes .....	384,602	June 19	1142	302	43	1353
Snow-excavator. Rotary .....	S. H. Dunning .....	385,700	July 10	551	143	44	115
Snow guard or fender .....	A. H. Bower .....	390,061	Sept. 25	1918	506	44	1463
Snow-plow .....	J. Appleby .....	380,076	Mar. 27	1824	485	42	1338
Snow-plow .....	L. Brillinger .....	390,338	Oct. 2	194	52	45	41
Snow-plow .....	E. P. Caldwell .....	394,244	Dec. 11	756	200	45	1224
Snow-plow .....	R. W. Campbell and J. E. Ward .....	392,850	Nov. 13	999	256	45	795
Snow-plow .....	H. L. Fraser .....	394,350	Dec. 11	920	242	45	1257
Snow-plow .....	J. B. Hayes .....	384,522	June 12	1024	267	43	1323
Snow-plow .....	O. Jull .....	393,240	Nov. 20	1549	406	45	911
Snow-plow .....	J. M. Mansfield .....	387,524	Aug. 7	482	127	44	667
Snow-plow .....	J. Vincent .....	383,925	June 5	127	37	43	1145
Snow-plow .....	T. Y. Woolford .....	389,040	Sept. 4	340	89	44	1137
Snow-plow. Railway .....	J. M. Bouck .....	392,491	Nov. 6	463	116	45	682
Snow-plow. Rai way .....	A. G. Dailey .....	379,938	Mar. 27	1616	430	42	1298
Snow-plows through snow-drifts, &c. Forcing .....	J. Byfield .....	392,905	Nov. 13	1070	277	45	809
Snow. Rotary excavator for removing .....	E. Leslie .....	380,809	Apr. 10	758	208	43	159
Snow-scraper .....	W. J. Grounds .....	389,298	Sept. 11	773	196	44	1227
Snow-scraper .....	J. W. Haines .....	378,307	Feb. 21	1453	379	42	794
Snow-scraper .....	C. A. Mercer .....	380,092	Sept. 4	415	109	44	1152
Soap .....	B. F. Burke .....	390,647	Oct. 9	626	153	45	133
Soap .....	I. A. Packard and J. D. Struble .....	394,259	Dec. 11	827	205	45	1238
Soap and glycerine. Making resin .....	A. Domeier and O. C. Hagemann .....	385,105	June 26	1904	43	1512	
Soap. Antiseptic .....	G. C. W. Belcher .....	383,853	June 5	8	43	1122	
Soap. Apparatus for lettering .....	E. T. Evans .....	386,740	July 24	2061	513	44	426
Soap cake .....	J. P. Greeley .....	389,296	Sept. 11	771	195	44	1226
Soap cake .....	L. S. Samuel .....	393,938	Dec. 4	287	78	45	1127
Soap compound .....	F. C. Bauer .....	377,135	Jan. 31	2049	42	422	
Soap. Making .....	R. A. McCullough .....	381,503	Apr. 17	1819	43	371	

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Soap-manufacture.	M. O'Hara.	394,660	Dec. 18	1404	366	45	1360
Soap-receptacle.	M. V. Koelsch.	389,930	Sept. 25	1728	457	44	1424
Sod-entter.	H. Gulliford.	390,295	Oct. 2	131	38	45	30
Soda, &c. Apparatus for causticizing.	G. W. Hammond.	381,996	May 1	167	43	43	545
Soda. Apparatus for the manufacture of.	M. R. Wood.	379,752	Mar. 20	1303	348	42	1229
Soda. Apparatus for the recovery of.	J. E. Warren and F. A. Cloudman.	380,670	Apr. 3	548	150	43	110
Soda-ash furnace.	J. F. Kennedy.	388,224	Aug. 21	1690	451	41	913
Soda. Manufacture of bicarbonate of.	M. R. Wood.	381,884	June 19	1567	407	43	1434
Soda-recovering apparatus.	R. H. Emerson.	377,551	Feb. 7	304	77	42	553
Soda. Treating native.	L. F. J. Winkle.	387,613	Aug. 7	639	.....	44	695
Soda-water apparatus.	H. F. Clevee and J. Parker.	394,834	Dec. 18	1706	443	45	1420
Soda-water apparatus.	O. Zwietsch.	391,674	Oct. 23	2079	563	45	428
Soda-water-dispensing apparatus.	O. J. Price.	381,027	Apr. 10	1095	291	43	221
Soda-water fountain.	A. Christin.	376,471	Jan. 17	1057	276	42	217
Sodium, &c. Apparatus for obtaining.	O. M. Thowless.	380,776	Apr. 10	712	196	43	151
Sodium bicarbonate. Apparatus for roasting.	E. Solvay.	386,664	July 24	1960	517	44	408
Sodium carbonates by sulphides of the alkaline earths.	E. W. Parnell and J. Simpson.	382,551	May 8	1021	.....	43	713
Making							
Sodium chlorate. Manufacture of.	E. K. Muspratt and G. Eschellmann.	388,217	Aug. 21	1582	.....	44	890
Sodium. Manufacture of.	H. S. Blackmore.	391,110	Oct. 16	1312	.....	45	268
Sodium, &c. Obtaining.	O. M. Thowless.	380,775	Apr. 10	711	.....	43	151
Sodium sulphate. Dehydrating.	H. Pemberton, Jr.	392,286	Nov. 6	160	.....	45	624
Sofa and bed. Combined extensible.	C. P. Waldo.	383,743	May 15	1305	{ 342 } { 343 }	43	778
Sofa and extension-table. Combined.	E. H. Meyer.	388,898	Sept. 4	136	36, 37	44	1098
Sofa and surgical table. Combined.	C. S. Judy and M. W. Forbes.	385,311	June 26	2217	568	43	1574
Sofa and table. Combined.	J. E. Alden.	378,996	Mar. 6	202	55	42	1005
Soil-pipe ventilator.	J. Hadfield and F. McConnell.	385,262	June 26	2137	545	43	1559
Solar radiant energy. Apparatus for utilizing.	E. Weston.	389,124	Sept. 4	486	125	44	1163
Solar radiant energy. Utilizing.	E. Weston.	389,125	Sept. 4	487	125	44	1163
Solar system. Apparatus for illustrating the form of the	J. Davis.	394,959	Dec. 25	1914	495	45	1468
Soldering-clamp.	W. H. Clay.	382,590	May 8	1087	280	43	727
Soldering cylindrical cans. Machine for.	J. S. Johnstone.	383,301	May 22	2127	561	43	949
Soldering in vacuo. Machine for.	W. R. Drueck.	394,840	Dec. 18	1716	{ 444 } { 445 }	45	1422
Soldering-iron.	C. R. Danielson.	381,533	Apr. 24	1866	493	43	398
Soldering-iron.	R. Schlumberger.	382,558	May 8	1034	263	43	717
Soldering-iron handle.	J. J. Murray.	393,444	Nov. 27	1247	487	45	978
Soldering-iron. Self-heating.	T. W. Eversole.	388,187	Aug. 21	1542	410	44	881
Soldering-irons. Apparatus for cleaning.	I. H. Cox.	381,761	Apr. 24	2184	571	43	460
Soldering machine. Can.	W. D. Brooks.	389,438	Sept. 11	974	{ 260 } { 261 }	44	1266
Soldering machine. Can.	A. D. Coleman.	384,825	June 19	1475	{ 385 } { 386 }	43	1418
Soldering machine. Can.	W. M. Emmart.	382,463	May 8	885	226	43	626
Soldering machine. Can.	C. B. McDonald and W. Wagner.	391,171	Oct. 16	1396	{ 372 } { 373 }	45	284
Soldering machine. Can.	E. Norton.	382,320	May 8	659	168	43	645
Soldering machine. Can.	J. O'Ferrall.	384,464	June 12	925	241	43	1305
Soldering machine. Can.	J. Solter.	386,759	July 24	2088	549	44	430
Soldering machine. Can-cap.	E. Norton and J. G. Hodgson.	379,976	Mar. 27	1669	445	42	1308
Soldering-machines. Can-delivery device for.	J. W. Roberts.	385,775	July 10	664	174	44	137
Soldering-pliers.	O. F. Garvey.	384,544	Apr. 24	1880	496	43	400
Soldering side seams of cans. Machine for.	A. B. Wilcox and E. Norton.	382,344	May 8	699	176	43	652
Soldering the ends of tin cans. Machine for.	S. W. McKenney and F. G. Kirby.	390,792	Oct. 9	827	{ 220 } { 221 }	45	170
Soldering-tool.	C. L. Wagandt.	389,726	Sept. 18	1419	370	44	1356
Soldering-tool.	C. L. Wagandt.	390,045	Sept. 25	1894	499	44	1458
Soldering-tool.	C. L. Wagandt and J. S. Hull.	379,141	Mar. 6	404	114	42	1042
Sole-channel-cementing apparatus.	W. Gordon.	390,773	Oct. 9	805	214	45	166
Sole-cutting die.	O. Rock.	389,763	Sept. 18	1464	384	44	1365
Sole-cutting machine.	J. Blakey.	392,255	Nov. 6	116	29, 30	45	616
Sole-edge burnisher.	C. Amazeen.	388,751	Aug. 28	2362	637	44	1047
Sole-edge-burnishing machine.	W. Gordon.	381,497	Apr. 17	1804	479	43	368
Sole-edge-molding machine.	A. Eppler, Jr.	387,059	July 31	2556	672	44	529
Sole-edges. Machine for trimming.	F. W. Coy and G. A. Fullerton.	378,870	Mar. 6	17	4, 5, 6	42	970
Sole-fastening wire.	P. Clifford and J. Coupal.	393,885	Dec. 4	226	60	45	1115
Sole laying and pressing machine.	F. W. Coy.	393,216	Nov. 20	1517	{ 397 } { 398 }	45	905
Sole-laying machine.	F. W. Coy.	376,406	Jan. 10	951	{ 249 } { 250 }	42	190
Sole-laying machines. Pad for.	A. F. Smith.	388,377	Aug. 21	1843	490	44	939
Sole-machine.	E. S. Abbott.	383,266	May 22	2078	{ 545 } { 546 }	43	939
Sole-pressing machine.	F. W. Coy.	393,215	Nov. 20	1514	{ 396 } { 397 }	45	904
Sole, stiffener, &c. Inner.	A. F. Smith.	376,419	Jan. 10	950	256	42	195
Sorghum-furnace.	W. H. H. Spradlin.	390,713	Oct. 9	717	189	45	151
Sonnet. Producing records of.	E. Berliner.	382,790	May 15	1372	.....	43	791
Sounds. Recording and reproducing.	T. A. Edison.	393,966	Dec. 4	339	92	45	1136
Sounds. Recording and reproducing.	T. A. Edison.	393,967	Dec. 4	341	92	45	1137
Sounding apparatus. Navigational.	W. Thomson.	377,696	Feb. 7	520	{ 133 } { 134 }	42	593
Sower. Broadcast.	I. M. Swank.	386,416	July 17	1600	420	44	330
Sower. Broadcast seed.	T. Grubb.	388,485	Aug. 28	1986	533	44	976
Sower. Broadcast seed.	W. L. Miller.	386,339	July 17	1476	391	41	302
Sower. Broadcast seed.	J. S. Ritter.	391,861	Oct. 30	2362	641	45	494
Sower. Broadcast seed.	G. Stevenson.	394,084	Dec. 4	506	136	45	1168
Sower. Hand seed.	H. A. Goro.	390,292	Oct. 2	127	37	45	29
Sower. Seed.	H. Amundson.	387,941	Aug. 14	1131	303	41	797
Sower. Seed.	S. and M. Freeman.	386,639	July 24	2002	529	44	415
Spacing-machine.	H. R. Barnhurst.	392,254	Nov. 6	114	29	45	616
Spar. Fender.	W. J. Rankins.	379,329	Mar. 13	677	183	42	1099
Spark arrester.	H. Bruce.	382,948	May 15	1582	413	43	834

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Spark-arrester	F. Bruhn and J. Raum	378,188	Feb. 21	1266	335	42	760
Spark-arrester	R. H. Coleman	387,624	Aug. 14	655	169	44	705
Spark-arrester	R. H. Coleman	387,625	Aug. 14	656	169	44	705
Spark-arrester	G. M. Cooper	386,385	July 17	1542	408	44	315
Spark-arrester	A. T. Cwerdinski	391,838	Oct. 30	2331	631	45	487
Spark-arrester	C. M. Garrison	392,672	Nov. 13	729	185	45	740
Spark-arrester	W. Gillis	377,485	Feb. 7	204	49	42	535
Spark-arrester	J. Haish	378,092	Feb. 21	1119	293	42	733
Spark-arrester	A. M. Henderson and J. W. Martin	378,507	Feb. 28	1746	461	42	861
Spark-arrester	F. M. Hudler	386,470	July 24	1687	444	44	356
Spark-arrester	H. W. Libbey	381,707	Apr. 24	2112	552	43	447
Spark-arrester	E. M. Lockett	393,994	Dec. 4	378	102 103	45	1144
Spark-arrester	J. H. Smith	391,658	Oct. 23	2059	557	45	424
Spark-arrester	F. P. Ziegler	376,499	Jan. 17	1098	288	42	225
Spark-extinguisher and smoke-purifier.	T. W. Barnes	389,916	Sept. 25	1710	453	44	1421
Spatula for pill-making	J. F. Golding	392,025	Oct. 30	2599	707	45	541
Speaking and signaling apparatus. Combined	J. E. Kelly	385,357	July 3	25	8	44	7
Speaking-tube. Carriage	G. A. Beach	386,053	July 10	1052	281	44	215
Speaking-tube. Carriage	G. A. Beach	386,054	July 10	1054	282	44	215
Specking, burling, and knobbing table.	C. C. Webber	377,655	Feb. 7	461	118	42	582
Spectacle-bridge	G. Johnston	384,260	June 12	630	170	43	1251
Spectacle case.	W. F. Clond	379,936	Mar. 27	1614	430	42	1298
Spectacle-temple	M. A. Vanderwaag	384,481	June 12	948	245	43	1308
Spectacles	A. Morek, Jr.	392,053	Oct. 30	2643	719	45	549
Spectacles	J. P. Tryner	375,964	Jan. 3	325	87	42	67
Spectacles. Combination.	B. Krause	378,965	Mar. 6	145	42	42	994
Spectacles. Electro-magnetic	J. T. Leighton	381,260	Apr. 17	1433	391	43	298
Spectacles or eyeglasses. Frame for.	F. A. Henninger	385,307	June 26	2313	568	43	1574
Spectacles. Repair-clamp for	N. J. Eddy	386,004	July 10	986	263	44	201
Speculum	G. E. Allen	379,553	Mar. 20	1011	271	42	1173
Speculum	P. Chamberlin	380,745	Apr. 10	662	183	43	141
Speculum	S. T. Yonnt	395,025	Dec. 25	2013	519	45	1488
Speech. Recording	G. H. Herrington	392,953	Nov. 13	1138	296	45	822
Speed-changer	A. Harding	376,150	Jan. 10	607	163	42	127
Speed-governing apparatus	A. Kollason	394,300	Dec. 11	843	223	45	1241
Speed-governor	A. J. Pierce	393,853	Dec. 4	177	48	45	1105
Speed-governor for motors	E. B. Benham	380,848	Apr. 10	815	222	43	169
Speed-indicator	H. Conant	388,532	Aug. 28	2050	551	44	987
Speed-indicator	G. S. Heath	378,836	Feb. 28	2234	594 595 596	42	955
Speed-indicator. Electrical	F. W. Schlepegrell	380,824	Apr. 10	780	213	43	163
Speed-regulating device	G. F. Evans	390,216	Oct. 2	36	10	45	10
Speed-regulator	T. M. Foote	383,452	May 29	2347	624 625	43	995
Speed-regulator	G. F. Wells	387,330	Aug. 7	195	51	44	608
Spelling-board	J. Schuman and A. G. Baier	375,774	Jan. 3	71	21	42	18
Spheroidal and analogous bodies. Mechanism for forming ornamental	J. Burkhardt	378,417	Feb. 21	1608	422	42	825
Spheroidal bodies from sheet-metal tubes. Forming hollow	J. Burkhardt	378,412	Feb. 21	1603	421	42	824
Spike	W. Goldie	394,113	Dec. 4	549	147	45	1176
Spike	H. Greer	387,066	July 31	2574	677 678	44	532
Spike-extractor	E. Spears	377,865	Feb. 14	795	203	42	661
Spike-machine	W. Koplin	393,438	Nov. 27	1840	484 485	45	976
Spike-puller.	B. S. Horton	392,920	Nov. 13	1089	282	45	813
Spindle: See Cultivator-spindle.							
Spindle and fier	J. Good	391,959	Oct. 30	2563	678	45	522
Spindle-bearing	T. C. Dill	394,347	Dec. 11	917	241	45	1257
Spindle box. Upright.	A. B. Hutchinson	392,732	Nov. 13	821	208	45	759
Spindle-driving bands. Tension-regulator for.	P. L. Kenney	395,240	Dec. 25	2366	605	45	1551
Spindle-step	P. Leiminger	377,902	Feb. 14	850	217	42	672
Spindles. Driving band for.	J. J. Heywood	377,937	Feb. 14	904	232	42	684
Spinning flax, &c. Machine for	A. T. Lawson	390,485	Oct. 2	403	103 104 105	45	83
Spinning flax, &c. Machine for	A. T. Lawson	390,486	Oct. 2	405	106	45	83
Spinning-frame	R. Gill, W. H. Butler, and S. Smith	380,563	Apr. 3	389	111	43	79
Spinning-frames, &c. Drawing-rolls for	J. M. Dunham and J. McKemie	392,970	Nov. 13	1132	294	45	821
Spinning-frames. Fulcrum for the weight-levers for the rolls of	W. Driscoll and J. F. Boylen	381,681	Apr. 24	2072	542	43	439
Spinning-frames. Supports for wire-boards of	G. Lyons	387,564	Aug. 7	562	147	44	681
Spinning-frames. Yarn-separator for	H. C. Cunningham	390,644	Apr. 3	501	140	43	102
Spinning-machine	M. Chapon	378,288	Feb. 21	1130	373	42	789
Spinning-machine	W. Leach	387,361	Aug. 7	237	61, 62	41	617
Spinning-machine	J. Marjerson	381,566	Apr. 24	1903	502	43	406
Spinning-machine	J. Marjerson	381,567	Apr. 24	1908	503	43	506
Spinning-machine	J. C. Potter	392,524	Nov. 6	507	127 128	45	691
Spinning-machine, &c.	W. C. Sanford	376,831	Jan. 21	1621	424	42	331
Spinning-machine	G. W. Shoemaker	385,900	July 31	2336	613 614	44	485
Spinning-machine. Silk.	F. Meyer	386,713	July 21	2021	533	44	419
Spinning-machine spindle-support	A. Wood. (Reissue)	16,897	Jan. 31	2392	691	42	486
Spinning-machines. Automatic roll-cleaner for	T. O. Cunningham	378,872	Mar. 6	24	7	42	971
Spinning-machines. Bearing for the journals of lower drawing-rollers in	J. Booth	384,344	June 12	759	199	43	1273
Spinning-machines. Device for pasting cop-bottoms on	W. Cooper and J. Cordingley	388,636	Aug. 28	2199	591	44	1016
Spinning-machines. Kink-preventer for silk.	J. A. Chapman	384,890	June 19	1572	409	43	1436

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Spinning-machines. Making banding for.....	T. H. Dunham.....	384,138	June 5	438	.....	43	1205
Spinning-machines, &c. Ring and traveler for.....	J. Tatham.....	377,871	Feb. 14	802	205	42	663
Spinning-machines. Saddle for top rolls of.....	G. A. Metcalf.....	394,124	Dec. 4	563	152	45	1179
Spinning-machines, &c. Scavenger-roll for.....	P. Laffin.....	375,881	Jan. 3	206	57	42	44
Spinning-machines, &c. Spindle-driving device for.....	L. Binns.....	380,784	Apr. 10	726	199	43	153
Spinning-machines. Spindle-driving device for.....	T. H. Logan.....	394,542	Dec. 11	1197	311	45	1307
Spinning-machines. Spindle for cap.....	J. R. Milson.....	387,245	Aug. 7	67	16	44	584
Spinning-machines. Yarn-guiding device for.....	J. F. Pollett.....	386,975	July 31	2447	643	41	508
Spinning-mule.....	H. Ashworth.....	390,549	Oct. 2	500	131	45	100
Spinning-mule.....	T. H. Conley.....	382,139	May 1	385	100	41	584
Spinning-mule.....	J. Hackaley.....	375,932	Jan. 3	280	76	42	58
Spinning-mule.....	W. Hackaley.....	381,069	Apr. 10	1169	311	43	236
Spinning-mule.....	W. N. Kimball and W. H. Herssey.....	388,051	Aug. 21	1307	352	44	839
				253 254 255 256 257 258			
Spinning-mule. Vertical.....	H. T. Bardwell.....	384,496	June 12	972	.....	43	1314
Spinning-mules. Carriage for.....	C. H. Seifert.....	389,016	Sept. 4	308	80, 81	44	1131
Spinning-mules, &c. Nosing mechanism for self-fac- ing.....	R. L. Holt.....	380,485	Apr. 3	259	71, 72	43	53
Spinning purposes. Manufacture of fibers of wood for.....	A. Mitscherlich.....	388,991	Sept. 4	266	.....	44	1124
Spinning-rings. Apparatus for burnishing.....	C. E. Trowbridge.....	391,725	Oct. 23	2150	581	45	442
Spinning-spindle.....	R. Gill, W. H. Butler, and S. Smith.....	386,810	July 31	2177	574	41	457
Spinning-spindle and support therefor.....	J. A. Farmer.....	377,426	Feb. 7	122	26	42	518
Spinning-spindle support.....	W. T. Carroll.....	376,234	Jan. 10	732	192	42	148
Spinning-spindle support.....	W. T. Carroll.....	391,737	Oct. 23	2169	586	45	446
Spinning-spindle support.....	W. F. Draper.....	391,460	Oct. 23	1798	481	45	368
Spinning-spindle support.....	W. F. Draper.....	391,461	Oct. 23	1799	481	45	368
Spinning-spindle support.....	W. F. Draper.....	391,462	Oct. 23	1799	481	45	369
Spinning-spindle support.....	W. F. Draper.....	592,912	Nov. 13	1078	279	45	811
Spinning-spindle support.....	W. F. and G. A. Draper.....	378,877	Mar. 6	31	8	42	972
Spinning-spindle support.....	W. F. and G. A. Draper.....	383,048	May 15	1754	453	43	867
Spinning-spindle support.....	J. T. Meats.....	394,200	Dec. 11	681	183	45	1210
Spinning-spindle support.....	C. F. Roper.....	378,906	Mar. 6	65	19	42	979
Spinning-spindle support.....	A. Wood.....	383,491	May 15	1819	476	43	879
Spinning-spindle support.....	A. Wood.....	392,976	Nov. 13	1175	305	45	829
Spinning-spindles. Bobbin-holder for.....	J. Davis.....	390,572	Oct. 2	528	138	45	106
Spinning-spindles, &c. Bobbin-holder for.....	W. F. Fuller.....	376,982	Jan. 24	1823	479	42	370
Spinning-spindles. Step for.....	J. Booth.....	388,392	Aug. 28	1861	497	44	950
Spinning-spindles. Whirl for.....	T. Hall.....	394,265	Dec. 11	790	210	45	1231
Spiral spring.....	J. Pfeil.....	394,007	Dec. 4	398	107	45	1147
Spirals from flat metal bars. Machine for forming.....	L. Gathmann.....	390,357	Oct. 2	225	60	45	47
Spirally-welded tube.....	J. B. Root.....	376,660	Jan. 17	1375	362	42	277
Spirometer.....	W. H. H. Barton.....	392,711	Nov. 13	787	199	45	752
Spirometer. Coin-released.....	R. Howson and E. Crowe.....	389,748	Sept. 18	1447	379	44	1361
Spittoon and securing the same.....	J. F. Thompson.....	376,761	Jan. 24	1498	395	42	310
Splice-bar.....	A. McHugh.....	379,176	Mar. 6	442	125	42	1050
Sploit. Metallic.....	J. E. Leo.....	392,157	Oct. 30	2815	764	45	582
Spoke-drawer.....	J. M. Germann.....	381,699	Apr. 24	2084	545	43	442
Spoke-socket.....	F. F. Dearing and R. C. Melton.....	391,030	Oct. 16	1202	320	45	247
Spoke-socket.....	J. T. Gormly.....	385,412	July 3	111	31	44	24
Spoke-socket.....	W. E. Hardin.....	377,893	Feb. 14	837	214	42	669
Spoke-socket.....	M. L. Smith.....	388,735	Aug. 28	2340	630	44	1043
Spoke-socket.....	G. W. Steele.....	390,144	Sept. 25	2036	542	41	1488
Spoke-tenon.....	W. F. Morton.....	381,270	Apr. 17	1468	394	43	301
Spokeshave.....	J. H. and B. F. Polhemus.....	383,590	May 29	2557	676	43	1036
Sponge and slate-pencil holder.....	S. M. Ashby.....	393,496	Nov. 27	1938	507	45	994
Spool.....	I. Cross.....	379,633	Mar. 20	1135	301	42	1195
Spool-case.....	F. Taylor.....	391,566	Oct. 23	1934	522	45	399
Spool-holder.....	O. S. Betts.....	388,813	Sept. 4	8	3	44	1074
Spool-holder.....	N. R. Outt.....	395,169	Dec. 25	2247	577	44	1531
Spool-holder.....	F. A. Purcell and J. K. Case.....	377,436	Feb. 7	137	30	42	520
Spool, needle, and thimble holder. Combined.....	S. W. Fuller.....	389,560	Sept. 18	1153	302	44	1305
Spool or bobbin.....	I. Cross.....	391,456	Oct. 23	1792	478	45	367
Spool or bobbin.....	J. N. Kelsea.....	382,091	May 1	326	85	43	573
Spools. Manufacturing.....	E. P. Brownell.....	384,677	June 19	1252	329	43	1375
Spooling-machine.....	J. M. Stone.....	376,834	Jan. 24	1625	425	42	332
Spooling-machines. Bobbin-holder for.....	P. Laffin.....	375,880	Jan. 3	204	56	42	44
Spooling-machines, &c. Bobbin-supporting spindle for.....	J. F. Nichols.....	385,680	July 3	519	135	41	102
Spoon-hook.....	J. Wood.....	394,632	Dec. 18	1362	357	45	1352
Spoon. Medicine.....	C. Langguth.....	380,734	Apr. 10	632	173	43	135
Spoons or forks. Die for thickening blanks for.....	R. Wallace.....	386,672	Sept. 21	1969	520	44	410
Spout-connection for cans and the like.....	E. W. Vacher.....	389,488	July 11	1041	277 278	44	1277
Spout for sheet-metal vessels.....	D. Prendergast.....	377,048	Jan. 31	1915	508	42	396
Spring: See Balance-spring.      Rocker-spring. Bed-spring.              Seat or couch spring. Bird-cage spring.      Skirt-supporting spring. Bolster-spring.          Spiral spring. Car-spring.              Thill-coupling spring. Carriage-fop-spring.      Vehicle-spring. Coiled spring.            Vehicle bolster-spring. Door-spring.              Vehicle-seat spring. Elliptic spring.           Wagon-spring. Gate-spring.              Wagon bolster-spring. Locomotive-spring.      Wagon-seat spring. Pocket-spring.            Watch-case spring. Prop-spring.              Whiffletree-spring.							
Spring.....	J. J. Brinkerhoff.....	379,502	Mar. 13	935	251	42	1149
Spring.....	J. D. Furnas.....	380,480	Apr. 3	253	70	43	52

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Spring	J. Trent	377,125	Jan. 31	2037	533	42	420
Spring-clasp	H. Ellean	393,222	Nov. 20	1525	400	45	906
Spring-clasp	C. J. White	380,154	Mar. 27	1927	514	42	1359
Spring compressor. Coiled	W. L. Goddard	377,803	Feb. 14	718	{ 181 182 }	42	646
Spring for side-bar vehicles	E. Hutchinson	379,787	Mar. 20	1359	362	42	1240
Spring-jack switch	C. E. Scribner	385,528	July 3	297	76	44	60
Spring-motor	P. A. Dolhis	382,033	May 1	237	61	43	557
Spring-motor	A. G. Perree	394,066	Dec. 4	484	129	45	1164
Spring-motor	J. B. Powell	382,663	May 8	1190	309	43	748
Spring-motor	A. D. Saunders	382,556	May 8	1030	263	43	716
Spring-seat	M. J. Barrow	382,207	May 1	481	124	43	601
Spring-tooth	P. F. Wells	382,847	May 15	1439	378	43	807
Springs. Apparatus for making	W. S. Over	390,892	Oct. 9	966	255	45	196
Springs. Crank-plate for bolster	L. A. Bonham	392,307	Nov. 6	184	48	45	628
Springs. Machine for making spiral steel	W. C. Farnum	392,598	Nov. 13	622	{ 156 157 }	45	720
Springs. Machine for making wire	O. S. Foster	388,658	Aug. 28	2228	598	44	1021
Springs. Making double-loop	H. Torley	388,166	Aug. 21	1503	400	44	874
Sprinkler: See Automatic sprinkler. Lawn-sprinkler. Clothes-sprinkler. Potato-sprinkler. Fire-sprinkler. Street-sprinkler.							
Sprinkler	C. M. Collins	381,966	May 1	141	33, 34	43	541
Sprinkler	O. B. Hall	395,225	Dec. 25	2344	600	45	1547
Sprinkling lawns. Device for	E. J. H. Richardson	385,069	June 26	1856	474	43	1502
Sprinkling-machine	R. P. Lovejoy	383,740	May 29	2775	731	43	1082
Sprinkling or other can	J. H. Kindlen	375,878	Jan. 3	202	56	42	43
Sprinkling or spraying pipe	A. F. Thayer	388,930	Sept. 4	187	49	44	1108
Sprocket-wheel	J. Chase	394,335	Dec. 11	900	237	45	1253
Sprocket-wheel	W. D. Ewart	382,079	May 1	306	80	43	569
Spur	A. McMann	384,774	June 19	1395	364	43	1404
Square and bevel protractor. Try-	F. N. Violet	379,780	Sept. 18	1485	391	44	1370
Square and bevel. Try-	C. W. Reeves	386,033	July 10	1025	272	44	209
Square and device for laying out angles. Combined try-	P. L. Fox	390,470	Oct. 2	387	99	45	80
Square and protractor. Combined	J. D. Smith	388,734	Aug. 28	2339	630	44	1042
Square, bevel, and clinometer. Combined center, T, and try	H. W. Evans	380,714	Apr. 10	614	169	43	131
Square, bevel, protractor, and level. Combined	W. Palmer, Jr.	383,242	May 22	2034	533	43	932
Square. Dress-maker's	F. A. Trupp	394,524	Dec. 11	1168	304	45	1301
Square, miter, and try-square. Combined	J. Murray	380,487	July 24	1705	451	44	359
Square, plumb, and level. Combined	A. A. Driscoll	391,032	Oct. 16	1204	320	45	248
Square, rule, calipers, and dividers. Combined	P. E. Nutting	385,822	July 10	727	191	44	149
Square. Tailor's	G. Frega	392,263	Nov. 6	127	32	45	61
Square. Tailor's	H. A. Scus	389,327	Sept. 11	805	205	44	1233
Square. Try-	R. Hayden	392,426	Nov. 6	371	91	45	664
Squares. Attachment for	C. P. Nichols	386,651	July 24	1940	512	44	404
Squeezer	G. Lindenthal	378,695	Feb. 28	2018	533	42	913
Stable-floor	J. E. Dustin	387,632	Aug. 14	665	172	44	707
Stage-carpets. Device for moving and holding	T. J. Gay	393,754	Dec. 4	32	10	45	1078
Stage effects. Producing	W. Gillette	389,294	Sept. 11	767		44	1226
Staging	E. E. Strout	378,810	Feb. 28	2185	582	42	945
Stain for brick-work	S. Tullar	383,330	May 22	2160		43	954
Stain or paint	W. H. Winslow	383,086	May 15	1810		43	877
Stair-rod sealer	C. A. Gildemeyer	391,840	Oct. 30	2335	633	45	488
Stair-rod sealer	C. A. Gildemeyer	391,841	Oct. 30	2336	633	45	488
Stair-steps. Top plate for	C. Momborg	381,407	Apr. 17	1665	416	43	341
Stairway	T. Rogers	385,012	June 26	1758	455	43	1482
Stairways. Guard for area or basement	J. J. Delancy	389,206	Sept. 11	618	158	44	1196
Stake-holding standard	C. F. Cooper	392,186	Nov. 6	15	5	45	597
Stalk and elod cutter	H. G. Cady	393,292	Nov. 20	1629	428	45	926
Stalk-chopper	A. Ferrel	386,190	July 17	1256	335	41	261
Stalk-cutter	L. M. Reed	393,392	Nov. 27	1777	470	45	964
Stalk-puller	J. T. Whilden	389,348	Sept. 11	832	212	44	1239
Stalls. Drain for	M. Logan	386,997	July 31	2476	650	44	514
Stalls for separating horses on race-tracks	P. A. Finigan	382,961	May 15	1597	503	43	1524
Stalls. Mat for horse-	L. S. Stowe	377,786	Feb. 14	686	{ 173 174 }	42	641
Stalls. Mat for horse-	L. S. Stowe	385,149	June 26	1968	68	43	1166
Stamp-affixing stand	I. Randall	395,172	Dec. 25	2251	578	45	1532
Stamp and ticket holder. Pocket postal	F. Strauss	381,000	June 5	231	417	43	837
Stamp. Combination printing-	T. Bartholomew	377,227	Jan. 31	2175	574	42	448
Stamp. Dating and canceling	L. J. M. Boyd	390,155	Sept. 25	2060	550	44	1493
Stamp. Duplex hand-	R. Robinson	389,667	Sept. 18	1330	{ 348 349 }	44	1337
Stamp. Electrical time-	C. A. Randall	380,504	Apr. 3	432	122	43	88
Stamp. Electrical time-	C. A. Randall	380,505	Apr. 3	436	123	43	89
Stamp for canceling, &c.	J. E. Perry	383,487	May 29	2418	642	43	1008
Stamp-guide	J. J. Broughall	379,931	Mar. 27	1608	427	42	1297
Stamp-guide	J. A. Gowan	391,527	Oct. 23	1884	506	45	387
Stamp. Hand-	H. A. Cadd	386,687	July 24	1988	{ 525 526 }	44	413
Stamp. Hand-	J. J. Finke	378,065	Feb. 14	1078	283	42	718
Stamp. Hand-	H. H. Norrington	386,716	July 24	2027	534	44	420
Stamp. Hand-	H. H. Norrington	383,437	Aug. 28	1920	513	44	962
Stamp. Hand-	W. W. Sawyer and W. A. Force	392,229	Nov. 6	76	19	45	609
Stamp. Hand-	J. S. Trimble	385,432	July 3	147	39	44	30
Stamp. Perforating-	N. Englund and O. Ohlson	379,271	Mar. 13	588	162	42	1082
Stamp. Printing-	H. Lang and E. Watson	381,880	Apr. 21	2376	618	43	497
Stamp-protector	W. P. Trowbridge	378,419	Feb. 21	1160	392	42	741
Stamp. Rotary hand-	H. A. Burbank	391,228	Oct. 16	1474	392	45	209
Stamp. Rubber	E. Reynolds	380,349	Apr. 3	68	22, 23	43	16
Stamp. Rubber	E. Reynolds	383,321	May 23	2151	568	43	953

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Stamp. Self-inking hand.....	L. G. Andrews .....	387,032	July 31	2523	663	44	522
Stamps. Device for holding and moistening postage..	J. H. Breese .....	383,037	May 15	1726	449	43	863
Stamps. Inking-pad for hand.....	H. Herpers .....	390,858	Oct. 9	920	243	45	187
Stamps. Pocket-box for postage.....	J. H. Breese .....	383,036	May 15	1724	449	43	862
Stamps. Valve-gear for ore.....	E. Reynolds .....	377,578	Feb. 7	338	87	42	560
Stamping apparatus. Mail.....	E. Laass and G. W. Hey.....	388,366	Aug. 21	1823	{ 481 485 }	44	937
Stamping-machines, &c. Mechanism for electrically controlling	O. Mergenthaler.....	376,541	Jan. 17	1154	{ 303 304 }	42	236
Stamping or embossing press .....	J. Thomson .....	387,830	Aug. 14	945	{ 245 246 }	44	761
Stamping-press .....	W. H. H. Clark.....	380,423	Apr. 3	169	47	43	35
Stamping-press .....	F. M. Leavitt.....	388,698	Aug. 28	2291	{ 616 617 }	44	1033
Stamping soap. Machine for .....	C. Manning .....	390,875	Oct. 9	940	248	45	190
Stanchion .....	D. Y. Clark .....	376,069	Jan. 10	484	131	42	104
Stanchion .....	A. T. Fairbrother .....	389,209	Sept. 11	623	159	44	1197
Stanchion .....	T. H. McCreary .....	386,890	July 31	2323	610	44	482
Stanchion .....	H. C. Miner .....	388,572	Aug. 28	2106	565	44	998
Stanchions of vessels in place. Securing .....	T. M. Rees .....	382,620	May 8	1130	291	43	715
Stand:							
<i>See</i> Advertising-stand. Lamp or other stand.							
Barrel-stand. Music-stand.							
Boiler-stand. Perfumery-stand.							
Calendar-stand. Photographic-camera stand.							
Clothes-stand. Railway-switch stand.							
Display-stand. Sewing-machine stand.							
Embroidery-stand. Show-stand.							
Flower-stand. Stamp-affixing stand.							
Garment-stand. Switch-stand.							
Gas-stand. Type-case stand.							
Hammock-stand. Wash-stand.							
Ink or other stand. Watering-stand.							
Lamp-stand.							
Stand for displaying goods.....	H. C. Albrecht .....	389,536	Sept. 18	1107	293	44	1297
Standard. Adjustable.....	O. Luetke .....	390,381	Oct. 2	258	69	45	55
Staple-machine.....	H. E. Cunningham .....	387,946	Aug. 14	1137	305	44	799
Staple-making machine.....	W. G. Slater .....	394,217	Dec. 11	708	189	45	1215
Staple-making machinery .....	F. Philips .....	393,482	Nov. 27	1919	502	45	990
Staple-setting implement.....	G. Delagneau.....	389,922	Sept. 25	1720	{ 454 455 }	44	1423
Staple-setting machine.....	W. J. Brown, Jr. ....	382,025	May 1	217	58	43	553
Staples. Machine for inserting and clinching .....	J. Mandel and J. P. Henderson.....	389,661	Sept. 18	1321	{ 345 346 }	44	1335
Stapling and folding machine. Combined .....	H. R. Heyl .....	389,147	Sept. 4	524	131	44	1169
Stapling implement .....	O. P. Johnson .....	391,709	Oct. 30	2275	616	45	477
Stapling-machine .....	H. R. Heyl .....	389,148	Sept. 4	528	134	44	1170
Star-finder .....	H. R. Johnson.....	395,058	Dec. 25	2061	{ 531 532 }	45	1498
Starch from grain. Plant for the manufacture of....	S. Spitzer .....	386,363	July 17	1509	400	44	308
Starch. Manufacture of .....	H. Wiegand .....	392,389	Nov. 6	319	455	45	654
Starch or other solid matter. Apparatus for drying	E. E. Duryea and P. H. Grinn .....	375,737	Jan. 3	22	7, 8	42	8
Starch. Preparing and treating .....	J. C. Schuman .....	379,034	Mar. 6	255	72	42	1014
Starching-machine .....	H. Monk .....	391,633	Oct. 23	2027	548	45	417
Starching-machine .....	H. Monk .....	391,634	Oct. 23	2028	549	45	418
Starching-machine .....	J. C. and E. F. Poland .....	391,645	Oct. 23	2043	552	45	421
Station and street indicator .....	J. L. Fate .....	382,519	May 8	970	244	43	703
Station and street indicator .....	J. L. Fate .....	382,520	May 8	972	245	43	704
Station-indicator .....	L. Berger and M. Faas .....	392,304	Nov. 6	181	47	45	638
Station-indicator .....	W. L. Crow .....	387,151	July 31	2704	709	44	553
Station-indicator .....	H. Holland and F. Matzew .....	391,529	Oct. 23	1888	507	45	388
Station-indicator .....	J. Iglesias .....	377,258	Jan. 31	2223	{ 587 588 }	42	456
Station-indicator .....	E. S. Irvin .....	377,384	Feb. 7	28	8, 9	42	500
Station-indicator .....	J. I. Irving .....	393,237	Nov. 20	1544	404	45	910
Station-indicator .....	J. I. Irving .....	393,706	Nov. 27	2252	591	45	1059
Station-indicator .....	J. Knight .....	388,980	Sept. 4	258	68	44	1132
Station-indicator .....	G. C. Logan .....	388,209	Aug. 21	1571	418	44	888
Station-indicator .....	J. C. Ludwig .....	383,230	May 22	2018	{ 529 530 }	43	929
Station-indicator .....	B. W. Lyon .....	385,314	June 26	2220	569	43	1375
Station-indicator .....	B. W. Lyon .....	393,309	Nov. 20	1648	435	45	930
Station-indicator .....	M. L. Mann .....	388,058	Aug. 21	1311	{ 353 354 }	44	840
Station-indicator .....	T. W. Munroe .....	380,341	Apr. 3	48	17, 18	43	12
Station-indicator .....	K. S. Nickerson .....	382,006	May 1	184	47	43	548
Station-indicator .....	R. Senftner .....	379,292	Mar. 13	621	{ 170 171 }	42	1090
Station-indicator .....	R. Senftner .....	392,693	Nov. 13	759	193	45	747
Station-indicator .....	P. A. Shanklin, W. R. and W. Swa- ger .....	393,524	Nov. 27	1983	518	45	1005
Station-indicator .....	F. A. Starr .....	386,562	July 24	1824	482	44	380
Station-indicator .....	W. P. Wood .....	394,237	Dec. 11	743	197	45	1232
Station-indicator and advertising-cabinet .....	A. J. Kellogg .....	394,371	Dec. 11	955	250	45	1264
Station-indicator. Automatic.....	R. H. Bachlotte, Jr., and L. J. Farris .....	384,493	June 12	966	252	43	1313
Station-indicator. Automatic.....	E. Blamey .....	389,283	Sept. 11	746	{ 189 190 }	44	1222
Station-indicators. Device for actuating .....	W. A. Turner .....	394,799	Dec. 18	1643	430	45	1409
Station-indicators. Mechanism for operating .....	J. Knight .....	394,074	Dec. 4	493	132	45	1166
Station-indicators. Mechanism for operating .....	B. W. Lyon .....	394,077	Dec. 4	498	134	45	1167
Station-indicators. Operating mechanism for .....	W. T. Snedden .....	391,653	Oct. 23	2053	{ 555 556 }	45	423
Station-signal. Block and order .....	B. F. Freeland .....	390,221	Oct. 2	42	11	45	11
Statuette.....	F. J. Herick .....	378,682	Feb. 28	2002	529	42	910



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Stave-bending machine .....	A. Hirsbbimor and C. M. Mueller ..	391,794	Oct. 30	2264	613	45	474
Stave-cutting machine. Barrel- .....	G., J. G., and M. O. Rehuss. ....	384,786	June 19	1407	369 370	43	1406
Stave-jointing machine .....	A. D. Catlin .....	376,139	Jan. 10	589	157	42	124
Stave-jointing machine .....	A. Hirschheimer and C. M. Mueller..	392,432	Nov. 6	378	93	45	665
Stave shaping and gaging machine .....	F. Myers .....	385,678	July 3	518	133 134	44	100
Staves. Bending barrel- .....	J. G. Rehfnss .....	393,661	Nov. 27	2189	574	45	1046
Staves. Die for forming barrel- .....	F. C. Rockwell .....	389,599	Sept. 18	1921	319	44	1317
Staves. Jointing-machine for barrel- .....	W. Ritter .....	383,249	May 22	2043	536	43	934
Staves. Machine for crozing, chamfering, howeling, and trimming .....	A. Hirschheimer and C. M. Mueller.	389,571	Sept. 18	1165	306	44	1308
Staves, &c. Steaming apparatus for .....	C. S. Gardiner .....	395,223	Dec. 25	2341	599 600	15	1547
Stay. Garment- .....	R. B. Wheeler .....	379,882	Mar. 20	1533	404	42	1273
Stay. Garment- .....	S. S. Williamson .....	394,746	Dec. 18	1546	404	45	1389
Steak-perforator .....	T. W. Franklin .....	376,080	Jan. 10	496	134	42	107
Steam and heating air. Generating .....	W. G. MacLaughlin .....	387,087	July 31	2598	684	44	536
Steam and hot-air heater. Combined .....	W. H. Deusslow .....	391,031	Oct. 16	1203	320	45	248
Steam and hot water for power and heating purposes. Means for supplying .....	W. E. Prall .....	386,348	July 17	1488	395	44	304
Steam and hot water for power and heating purposes. Supplying .....	W. E. Prall .....	386,347	July 17	1486	395	44	304
Steam and warm-air heater .....	E. V. Adkins .....	393,735	Dec. 4	1	1	45	1073
Steam. Apparatus for chemically heating water to produce .....	W. G. MacLaughlin .....	387,988	July 31	2601	684	44	537
Steam-boiler .....	L. B. Battin .....	381,822	Apr. 24	2289	595	43	479
Steam-boiler .....	J. G. Bryan .....	388,340	Aug. 21	1773	473	44	928
Steam-boiler .....	T. E. Button .....	387,393	Aug. 7	291	74	44	628
Steam-boiler .....	N. B. Clark and F. B. King .....	386,526	July 24	1771	468 469	44	371
Steam-boiler .....	G. A. Colby .....	391,583	Oct. 23	1960	529	45	403
Steam-boiler .....	E. T. Copeland .....	390,068	Sept. 25	1927	508	44	1465
Steam-boiler .....	D. A. Dickinson .....	390,461	Oct. 2	368	95	43	77
Steam-boiler .....	H. A. R. Dietrich .....	395,268	Dec. 25	2402	615 616	45	1559
Steam-boiler .....	P. Donald .....	387,776	Aug. 14	870	224	44	746
Steam-boiler .....	P. F. Dundon .....	391,359	Oct. 16	1652	437	45	332
Steam-boiler .....	J. A. Eno .....	385,510	July 3	267	68	44	54
Steam-boiler .....	F. G. Fowler .....	377,099	Jan. 31	2005	525	42	413
Steam-boiler .....	N. Furlong .....	393,064	Nov. 20	1303	339 340	45	862
Steam-boiler .....	H. Hacknoy .....	387,511	Aug. 7	464	122	44	663
Steam-boiler .....	P. Hanrez .....	384,972	June 26	1685	438	43	1467
Steam-boiler .....	C. J. M. Hayna .....	381,368	Apr. 17	1608	430	43	330
Steam-boiler .....	S. P. Hedges .....	388,198	Aug. 21	1556	413 414	44	885
Steam-boiler .....	J. Johnson .....	381,791	Apr. 24	2224	582 583	43	468
Steam-boiler .....	G. Kingsley .....	390,235	Oct. 2	59	16, 17	45	15
Steam-boiler .....	M. N. Lynn .....	377,460	Feb. 7	168	39, 40	42	527
Steam-boiler .....	C. P. Marshall .....	383,364	May 22	2212	586	43	964
Steam-boiler .....	H. W. Moore .....	391,265	Oct. 16	1523	404 405	45	308
Steam-boiler .....	J. J. Moore .....	393,781	Dec. 4	68	19	45	1085
Steam-boiler .....	J. A. Mumford .....	382,657	May 8	1184	306	43	746
Steam-boiler .....	W. H. Odell .....	376,205	Jan. 10	687	182	42	141
Steam-boiler .....	M. S. Rexford .....	384,716	June 19	1313	344 344	43	1387
Steam-boiler .....	E. Reynolds .....	394,211	Dec. 11	696	186	45	1213
Steam-boiler .....	W. C. Rice .....	379,982	Mar. 27	1677	447	42	1310
Steam-boiler .....	W. N. Rumely .....	389,250	Sept. 11	696	177	44	1212
Steam-boiler .....	C. L. Seabury .....	387,186	July 31	2760	722	44	562
Steam-boiler .....	G. W. Shealey .....	379,336	Mar. 13	685	185	42	1101
Steam-boiler .....	G. S. Strong .....	382,061	May 1	276	72, 73	43	564
Steam-boiler .....	C. H. Twist .....	384,943	June 19	1638	426	43	1149
Steam-boiler .....	G. R. Wilson .....	379,749	Mar. 20	1300	347	42	1228
Steam-boiler and furnace .....	W. S. Post and H. D. Sawyer .....	394,131	Dec. 4	578	155	45	1182
Steam-boiler indicator .....	L. D. Copeland .....	382,140	May 1	386	101	43	584
Steam-boiler. Portable .....	L. H. Hall .....	389,073	Sept. 4	387	101	44	1147
Steam-boiler. Sectional .....	A. M. Dimmick and E. Z. Smith .....	376,371	Jan. 10	909	238	42	183
Steam-boiler. Sectional .....	A. M. Dimmick and E. Z. Smith .....	389,642	Sept. 18	1283	337 338	44	1328
Steam-boiler. Sectional .....	J. A. Groshon .....	384,313	June 12	705	187 188	43	1265
Steam-boiler. Sectional .....	A. Mercer .....	377,265	Jan. 31	2233	590	42	457
Steam-boiler. Sectional .....	D. F. Morgan .....	379,975	Mar. 27	1667	444 445	42	1308
Steam-boiler. Sectional .....	R. Ponnay .....	376,257	Jan. 10	756	200 201	42	155
Steam-boiler. Sectional .....	H. D. Rice .....	390,312	Oct. 2	153	43	45	34
Steam-boiler. Sectional .....	A. L. Riker .....	379,725	Mar. 20	1269	339	42	1223
Steam-boiler. Water-tube .....	C. Ward .....	386,858	July 31	2274	599	44	474
Steam-brake .....	R. Hardie .....	375,933	Jan. 3	283	76	42	59
Steam-chests. Apparatus for automatically lubricating .....	T. Fitzpatrick .....	384,354	June 12	776	202	43	1276
Steam-cylinders. Throttling device for .....	G. W. Cisco .....	389,736	Sept. 18	1431	373 374	44	1358
Steam-engine .....	P. Armington .....	378,643	Feb. 28	1935	514	42	898
Steam-engine .....	W. K. Anstien .....	383,430	May 29	2318	615	43	989
Steam-engine .....	J. Bonicard .....	388,755	Aug. 28	2372	638 639	41	1049
Steam-engine .....	D. Bowen .....	383,614	May 29	2595	626	43	1044

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &	Vol.	Page.
Steam-engine.....	J. T. Case.....	394,911	Dec. 18	1842	{ 477 478 }	45	1445
Steam-engine.....	W. F. Class.....	380,991	Apr. 10	1049	277	43	212
Steam-engine.....	F. A. Cresswell.....	378,041	Feb. 14	1015	273	42	711
Steam-engine.....	F. Fischer.....	384,246	June 12	612	164	43	1248
Steam-engine.....	H. N. Gale.....	377,247	Jan. 31	2207	{ 582 583 }	42	453
Steam-engine.....	J. C. Gräbner and H. Ruperti.....	385,113	June 26	1915	488	43	1514
Steam-engine.....	F. P. Hawkins.....	380,110	Mar. 27	1869	497	42	1347
Steam-engine.....	C. Holly.....	391,970	Oct. 30	2521	682	45	525
Steam-engine.....	S. E. Jarvis.....	380,488	Apr. 3	264	73	43	54
Steam-engine.....	W. K. Knight.....	382,309	May 8	642	164	43	642
Steam-engine.....	W. J. Lane.....	392,039	Oct. 30	2622	{ 712 713 }	45	545
Steam-engine.....	H. Lecontoux and E. Garnier.....	382,479	May 8	915	{ 231 232 }	43	692
Steam-engine.....	M. N. and E. P. Lynn.....	377,462	Feb. 7	172	40, 41	42	528
Steam-engine.....	M. N. and E. P. Lynn.....	377,463	Feb. 7	174	41	42	529
Steam-engine.....	G. Marshall.....	390,876	Oct. 9	942	{ 248 249 }	45	191
Steam-engine.....	R. H. Mather.....	386,548	July 24	1804	{ 476 477 }	44	376
Steam-engine.....	R. H. Mather.....	388,059	Aug. 21	1312	{ 354 355 }	44	840
Steam-engine.....	F. C. Morton.....	382,547	May 8	1016	{ 259 260 }	43	712
Steam-engine.....	C. T. Porter.....	391,916	Oct. 30	2441	660	45	510
Steam-engine.....	F. M. Rites.....	383,322	May 22	2151	568	43	953
Steam-engine.....	G. H. Scribner and W. Heckert.....	381,851	Apr. 24	2333	{ 606 607 }	43	489
Steam-engine.....	E. G. Shortt.....	389,768	Sept. 18	1470	385	44	1366
Steam-engine.....	E. S. Smith.....	380,825	Apr. 10	781	{ 213 214 }	43	164
Steam-engine.....	P. M. Smith.....	393,037	Nov. 20	1271	329	45	855
Steam-engine.....	G. W. Stewart.....	376,271	Jan. 10	772	205	42	158
Steam-engine.....	H. H. Westinghouse and F. M. Rites.....	393,597	Nov. 27	2085	547	45	1027
Steam-engine. Caustic-soda.....	A. H. Stow.....	381,967	May 1	98	24	43	533
Steam-engine. Compound.....	E. B. Benham.....	393,607	Nov. 27	2106	{ 551 552 }	45	1030
Steam-engine. Concentric-piston.....	A. D. Baker and F. P. Huyck.....	383,609	May 29	2581	{ 684 685 }	43	1041
Steam-engine. Concentric-piston.....	G. W. Hubbard.....	386,922	July 31	2371	623	44	492
Steam-engine. Direct-acting.....	M. Garland and A. D. Catlin.....	382,082	May 1	312	82	43	570
Steam-engine. Direct-acting.....	F. Winn.....	394,047	Dec. 4	455	{ 122 123 }	45	1158
Steam-engine. Double-acting.....	J. T. Case.....	394,675	Dec. 18	1430	{ 373 374 }	45	1364
Steam-engine for equalizing power.....	W. A. Pitt.....	383,764	May 29	2821	743	43	1089
Steam-engine indicator.....	W. F. Brown.....	377,601	Feb. 7	377	96	42	567
Steam-engine indicator.....	A. L. Idle.....	375,874	Jan. 3	191	53	42	41
Steam-engine indicator.....	A. L. Idle. (Reissue).....	10,918	Apr. 3	551	151	43	111
Steam-engine indicator attachment.....	J. R. Mitchell.....	380,918	Apr. 10	927	248	43	190
Steam-engine. Multiple-cylinder.....	D. Wilkinson.....	376,459	Jan. 17	1041	273	42	214
Steam-engine or other motor.....	H. Rhyne.....	391,860	Oct. 30	2359	641	45	493
Steam-engine. Oscillating.....	J. D. Bowne.....	379,630	Mar. 20	1130	299	42	1194
Steam-engine. Rotary.....	F. R. Low and F. M. Clark.....	386,479	July 24	1696	{ 447 448 }	44	358
Steam-engine. Rotary.....	W. B. Maves.....	387,093	July 31	2608	685	44	538
Steam-engines. Regulating live steam and exhaust from.....	J. J. Lowden.....	381,149	Apr. 17	1296	346	43	269
Steam-generator.....	F. M. Bartlett.....	377,228	Jan. 31	2177	574	42	448
Steam-generator.....	J. V. Beekman.....	384,555	June 12	1068	279	43	1331
Steam-generator.....	J. B. Bossler.....	382,863	May 15	1461	383	43	811
Steam-generator.....	W. M. Brown.....	391,400	Oct. 23	1713	456	45	351
Steam-generator.....	L. D. Copeland.....	394,461	Dec. 11	1073	279	45	1285
Steam-generator.....	J. A. Eno.....	384,898	June 19	1581	411	43	1438
Steam-generator.....	J. A. Eno.....	389,503	Sept. 11	1059	{ 291 292 }	44	1281
Steam-generator.....	G. M. Hopkins.....	388,873	Sept. 4	103	27	44	1092
Steam-generator.....	H. H. Hyland.....	394,574	Dec. 18	1266	{ 331 332 }	45	1335
Steam-generator.....	T. F. Morrin.....	377,324	Jan. 31	2318	{ 672 673 }	42	473
Steam-generator.....	T. F. Morrin.....	387,100	July 31	2616	{ 687 688 }	44	539
Steam-generator.....	J. A. Palmer.....	391,639	Oct. 23	2035	550	45	419
Steam-generator.....	O. B. Peck.....	385,425	July 3	136	36	44	28
Steam-generator.....	M. Pierce and F. Thomas.....	389,008	Sept. 4	28	76	44	1128
Steam-generator.....	W. Schmidt.....	382,875	May 15	1423	373	43	803
Steam-generator.....	L. Serpollet.....	379,421	Mar. 13	809	218	42	1126
Steam-generator.....	L. Serpollet.....	392,934	Nov. 13	1108	287	45	816
Steam-generator.....	J. W. Stevens.....	393,864	Dec. 4	192	53	45	1108
Steam-generator.....	L. C. Thatcher.....	392,579	Nov. 6	587	148	45	707
Steam-generator.....	E. H. Thompson.....	384,941	June 19	1636	425	43	1449
Steam-generator.....	J. I. Thorneycroft.....	387,547	Aug. 7	529	{ 137 138 }	44	674
Steam-generator.....	W. W. Yokom.....	391,767	Oct. 23	2205	596	45	454
Steam-generator furnace.....	T. Main.....	378,967	Mar. 6	147	43	42	995
Steam-generator. Gas-burning.....	W. M. Brown.....	392,986	Nov. 20	1201	313	45	841
Steam-generator. Sectional.....	J. Kling, Jr.....	376,098	Jan. 10	523	140	42	112
Steam-generators. Device for feeding water to.....	W. Burnham.....	394,827	Dec. 18	1686	440	45	1417
Steam-generators. Water-raising connection for.....	W. Burnham.....	394,822	Dec. 18	1674	438	45	1415
Steam-generators. Water-raising connection for.....	W. Burnham.....	394,824	Dec. 18	1679	439	45	1416
Steam-generators. Water-returning appliance for.....	W. Burnham.....	394,830	Dec. 18	1693	441	45	1418

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Steam head. Exhaust.....	W. L. Simpson .....	395,184	Dec. 25	2272	582	45	1535
Steam heater or boiler for culinary and other purposes. Automatic	R. E. Deane.....	384,348	June 12	766	583	43	1274
Steam heater or radiator .....	E. E. Gold.....	379,952	Mar. 27	1634	435	42	1302
Steam-jacket connection .....	W. Burnham.....	394,825	Dec. 18	1681	439	45	1416
Steam-motor .....	O. E. Davidson .....	378,663	Feb. 28	1970	523	42	905
Steam or gas motor engine .....	B. C. Pole.....	382,008	May 1	126	18, 49	43	548
Steam or other engine .....	B. S. Church.....	392,988	Nov. 20	1204	313	45	812
Steam or other motor .....	H. Moehring and A. Pflüger .....	383,405	May 22	2271	605	43	975
Steam or pneumatic engine .....	G. A. Barth.....	393,604	Nov. 27	2101	550	45	1029
Steam. Perforated plate for drying .....	W. Houghtaling .....	389,078	Sept. 4	394	103	44	1148
Steam. Regenerating exhaust .....	E. O. Schartau .....	381,172	Apr. 17	1329	355	43	275
Steam-regulator .....	T. J. Kieley.....	389,227	Sept. 11	656	168	41	1204
Steam-regulator .....	J. W. Taylor .....	384,727	June 19	1327	346	43	1389
Steam-separator .....	N. Curtis.....	393,543	Nov. 27	2017	527	45	1012
Steam-separator .....	A. Davidson .....	377,992	Feb. 14	978	255	42	698
Steam-separator .....	A. Davidson. (Reissue) .....	10,914	Mar. 27	2129	569	42	1400
Steam through pipes. Device for controlling the flow of	S. Braggius.....	387,851	Aug. 14	976	254	44	767
Steam-trap .....	J. Bishop.....	376,850	Jan. 24	1650	432	42	337
Steam-trap .....	F. G. Botsford.....	381,670	Apr. 24	2056	558	43	436
Steam-trap .....	H. Creamer.....	376,586	Jan. 17	1215	321	42	249
Steam-trap .....	G. Dinkel.....	380,791	Apr. 10	739	202	43	155
Steam-trap .....	P. Fyfe.....	380,281	Mar. 27	2096	561	42	1394
Steam-trap .....	E. H. Gold.....	394,167	Dec. 11	629	168	45	1201
Steam-trap .....	L. Graff.....	386,633	July 24	1910	505	44	398
Steam-trap .....	F. J. Hladky.....	377,305	Jan. 31	2296	607	42	470
Steam-trap .....	J. Kelm.....	393,582	Nov. 27	2062	539	45	1022
Steam-trap .....	G. B. Ross.....	392,366	Nov. 6	282	72	45	648
Steam-trap .....	J. R. Wade.....	378,482	Feb. 28	1711	451	42	854
Steam-trap and boiler-feeder .....	W. Simpkin.....	385,014	June 26	1761	456	43	1483
Steam trap and feeder .....	H. Creamer.....	394,463	Dec. 11	1076	280	45	1285
Steam-traps. Straining device for .....	W. Haythorn.....	379,160	Mar. 6	425	120	42	1046
Steam. Utilizing exhaust .....	M. Hornigmann .....	381,244	Apr. 17	1432	285	43	294
Steam-washer .....	J. W. Ballard.....	382,289	May 8	615	157	43	637
Steam-washer .....	J. M. Reddy.....	380,722	Apr. 10	643	178	43	138
Steamboats. Pilot's and engineer's signal for .....	C. C. Roe.....	380,350	Apr. 3	70	23	43	17
Steamer. Vegetable .....	K. Schneider.....	391,085	Oct. 16	1279	341	45	262
Steaming and cooking purposes. Device for .....	D. C. Ganter.....	376,084	Jan. 10	504	136	42	108
Steaming cloth and other fabrics. Apparatus for .....	V. T. Van Fleet.....	382,063	May 1	278	73	44	564
Steamships. Stern-post and stern-frame for .....	W. T. Sylven.....	382,014	May 1	194	50	43	550
Steel and ingot-iron. Manufacture of .....	P. C. Gilchrist.....	377,609	Feb. 7	389	.....	42	569
Steel bands. Apparatus for tempering .....	J. Oldham.....	381,575	Apr. 24	1920	566	43	408
Steel direct from the ore. Manufacturing .....	M. Graff.....	393,553	Nov. 27	2026	.....	45	1014
Steel or steely iron. Tempering .....	H. Schneider.....	384,935	June 19	1630	.....	43	1447
Steel. Treating low .....	H. A. Harvey.....	376,194	Jan. 10	664	.....	42	138
Steering apparatus .....	R. Grignon.....	394,174	Dec. 11	639	171	45	1203
Steering apparatus .....	J. H. Konitzky.....	385,936	July 10	902	240	44	185
Steering apparatus .....	J. M. Wallace.....	380,467	Apr. 3	236	64	43	48
Steering apparatus and windlass .....	W. M. Gillie.....	380,481	Apr. 3	254	70	43	52
Steering apparatus for vessels .....	B. A. Fiske.....	385,259	June 26	2133	544	43	1559
Steering apparatus for vessels .....	J. A. Miller.....	393,110	Nov. 20	1650	435	45	931
Steering apparatus for vessels .....	J. H. Snelling.....	389,838	May 15	1426	374	43	804
Steering apparatus. Ship .....	J. Edson.....	377,375	Feb. 7	9	3	42	497
Steering-brake for vessels. Auxiliary .....	H. Wettstein.....	395,021	Dec. 25	2010	518	45	1487
Steering-gear. Locking .....	J. H. Rushton.....	383,593	May 29	2561	677	43	1037
Steering-gear. Steam .....	F. B. Turner.....	394,314	Dec. 11	867	228	45	1247
Steering mechanism for vessels .....	W. Whitehead.....	379,840	Mar. 20	1457	325	42	1258
Steering vessels .....	T. Skinner.....	382,563	May 8	1041	265	43	718
Stencil-copying apparatus .....	F. W. Zimmer.....	390,430	Oct. 2	325	85	45	69
Stencils. Prepared sheet for .....	J. Brodrick.....	377,706	Feb. 7	531	.....	42	595
Stenciling-machine .....	J. A. C. Hamill.....	394,680	Dec. 18	1457	321	45	1370
Step. Folding .....	A. H. Nicholas.....	383,902	June 5	89	23	43	1136
Step or platform .....	F. H. Stanwood.....	382,331	May 8	678	172	43	648
Stereotype-finishing machine .....	C. T. Murray.....	394,594	Dec. 18	1295	339	45	1340
Stereotype-matrices. Machine for making .....	J. R. Rogers.....	389,108	Sept. 4	465	119	44	1159
Stereotype-plate .....	G. Damon and E. S. Peets .....	392,188	Nov. 6	18	5	45	598
Stereotype-plate-finishing machine .....	C. S. Partridge.....	387,067	July 31	2493	654	44	516
Stereotype-plate holder .....	A. Overend.....	389,715	Sept. 13	1402	366	44	1352
Stereotype-plates for printing. Block for locking .....	H. Fietsch, Jr.....	388,032	Aug. 21	1268	341	44	833
Stereotype-plates. Machine for planing .....	L. Goss.....	383,221	May 22	2104	525	43	926
Stereotype-plates which are cast separately from their beds. Means for securing .....	E. D. Rogers.....	381,820	Apr. 24	2257	595	43	479
Stereotypes. Producing matrices for .....	G. Damon and E. S. Peets .....	392,189	Nov. 6	19	5	45	598
Stereotyping .....	L. Goss.....	390,774	Oct. 9	806	214	45	166
Stereotyping casting-box .....	I. D. Harlbut.....	376,743	Jan. 21	1471	388	42	305
Stereotyping-machine .....	W. H. Nelson.....	379,241	Mar. 13	550	153	42	1076
Stereotyping. Matrix for .....	F. Schneider and A. Schott .....	376,348	Jan. 10	880	231	42	178
Stilt .....	L. Hoffman.....	381,552	Apr. 24	1888	498	43	402
Stirrup .....	S. T. Butler.....	380,276	Mar. 27	2087	559	42	1392
Stirrup .....	T. Coady.....	382,600	May 15	1239	323	43	765
Stirrup .....	T. J. Taylor.....	385,150	June 26	1969	504	43	1525
Stirrup attachment .....	J. C. Welcome.....	379,747	Mar. 20	1298	346	42	1228
Stirrup-pad .....	D. H. Jennings and W. H. Allen .....	376,526	Jan. 17	1138	298	42	232
Stirrups. Machine for making metal .....	F. H. Knidl.....	379,202	Mar. 6	486	137	42	1058
Stitching button-holes .....	E. Fletcher.....	389,840	Sept. 18	1572	416	44	1387
Stitching-horse .....	H. Doering.....	378,295	Feb. 21	1439	375	42	791
Stock-cooler. Portable .....	L. T. Schwamm.....	381,432	Apr. 17	1706	457	43	350

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Stock. Device for catching	F. M. Anable	390,331	Oct. 2	182	49	45	39
Stock-loading device	A. J. Martin and H. J. Breese	376,896	Jan. 24	1710	448	42	349
Stock-waterer	G. A. Evenson and F. Yocum	376,031	Jan. 3	427	113	42	86
Stocking	E. Suro	379,831	Mar. 20	1440	382	42	1255
Stocking	F. Wilcomb	378,819	Feb. 28	2205	588	42	949
Stocking and skirt holder	A. Warren. (Reissue)	10,698	Feb. 7	569	147	42	603
Stocking-supporter	F. P. Butman	377,480	Feb. 7	197	47	42	533
Stocking-supporter	S. B. Ferris	376,298	Jan. 10	807	213	42	164
Stocking-supporter	L. Stein	395,011	Dec. 25	1996	515	45	1484
Stocking-supporter	A. M. Ziegler	376,464	Jan. 17	1049	275	42	216
Stocking-suspender clip	F. E. Taylor	385,330	June 26	2252	576	43	1580
Stockings. Making	E. G. Chester	380,421	Apr. 3	164	46	43	34
Stockings. Manufacturing	R. Morley and W. Greenwood	385,315	June 26	2223	569	43	1576
Stoker. Mechanical	W. Whittaker	384,486	June 12	954	247	43	1310
Stone and ore crushing and pulverizing machine	F. B. and A. H. Meech	385,638	July 3	461	120	44	90
Stone. Apparatus for manufacturing artificial	P. Jochum and T. Ehrhardt	387,721	Aug. 14	806	206	44	732
Stone. Apparatus for transporting and setting	D. McDonald	387,791	Aug. 14	893	231	44	751
Stone. Artificial	A. G. Dickinson	387,344	Aug. 7	216	.....	44	613
Stone. Artificial	J. T. Key	387,519	Aug. 7	475	.....	44	665
Stone. Artificial	W. Lord	392,100	Oct. 30	2820	.....	45	583
Stone. Artificial	E. R. Schroeter	377,173	Jan. 31	2096	.....	42	433
Stone. Artificial	O. A. Tanner	380,530	Apr. 10	788	.....	43	165
Stone. Artificial	P. Von Krystoffovitch	392,094	Oct. 30	2686	.....	45	557
Stone blocks. Manufacture of artificial	J. S. Peirce	378,715	Feb. 28	2043	539	42	918
Stone blocks or tiles for paving and other purposes.	J. S. Peirce	378,716	Feb. 28	2044	539	42	918
Means for molding artificial.							
Stone-channeling machine	C. W. Green	386,313	July 17	1447	383	44	296
Stone-channeling machine	J. F. Holloway	382,528	May 8	984	248	43	706
Stone-channeling machine	T. McDonnell, Jr.	391,260	Oct. 16	1516	402	45	307
					403		
Stone composition. Artificial	C. A. Shank	388,726	Aug. 28	2330	.....	44	1040
Stone. Composition for artificial	A. Von Gersheim	390,726	Oct. 9	734	.....	45	154
Stone. Composition for building	A. Fürst and R. Schauffelberger	387,221	Aug. 7	34	.....	44	579
Stone-cutting machine	E. Foerster	392,001	Nov. 13	629	158	45	721
Stone-cutting tools. Device for sharpening	E. England	393,300	Nov. 20	1637	432	45	928
Stone-dressing machine	J. Coulter	387,342	Aug. 7	212	56, 57	44	612
Stone-dressing machine	U. Cummings	376,296	Jan. 10	805	212	42	164
					213		
Stone-dressing tool	M. P. Higgins	378,313	Feb. 21	1461	381	42	795
Stone. Endless saw for cutting	F. Turrettini	379,835	Mar. 20	1451	384	42	1256
Stone. Gang for sawing	J. W. Maloy	387,223	Aug. 7	58	14	44	583
Stone-gatherer and potato-digger. Self-loading	E. Crane	388,312	Aug. 21	1775	473	44	929
					474		
Stone. Machinery for dressing and planing	J. Coulter	387,341	Aug. 7	209	55	44	612
Stone. Machinery for sawing	J. A. Bailey	393,201	Nov. 20	1493	390	45	899
Stone. Manufacturing artificial	H. R. Zuber	391,830	Oct. 30	2316	628	45	485
Stone or cement. Composition for the manufacture of artificial	I. Lichtentag	377,036	Jan. 31	1902	.....	42	393
Stone or marble drill	R. A. McHenry	394,787	Dec. 18	1624	425	45	1405
Stone-saw	J. Peckover	381,811	Apr. 24	2253	589	43	473
Stone-sawing machine	V. G. Barney	377,660	Feb. 7	469	120	42	583
Stone-sawing machine	V. G. and R. L. Barney	377,595	Feb. 7	362	93	42	564
Stone-sawing machine	W. Flynn	386,532	July 24	1783	471	44	373
Stone-sawing machine	T. A. Jackson	386,542	July 24	1796	474	44	375
Stone-sawing machine	J. Peckover	390,034	Sept. 25	1873	495	44	1453
Stone-sawing machines. Feeder for	P. Christa	384,125	June 5	418	116	43	1201
Stone-sawing machines. Method of and apparatus for feeding chilled shot in	E. J. Hawley	381,999	May 1	173	45	43	546
Stone-sawing machines. Sand and water distributor for	J. H. Frenier	384,615	June 19	1160	307	43	1357
Stone tub	S. Coombe	391,121	Oct. 16	1326	353	45	270
Stool	W. J. Melvin	388,060	Aug. 21	1314	356	44	841
Stool	H. C. Sittig	382,777	May 15	1351	355	43	788
Stool	H. C. Sittig	390,406	Oct. 2	296	77	45	63
Stool. Coffin or casket	B. G. Casler	386,524	July 24	1769	467	44	370
Stool. Folding	E. W. Barber and A. Ostemann	394,325	Dec. 11	880	232	45	1249
Stool. Milking	W. H. Moody	393,716	Nov. 27	2264	594	45	1061
Stool or chair. Adjustable	G. W. Tripp	381,188	Apr. 17	1347	360	43	278
Stool. Piano	A. G. Hofstatter	377,856	Feb. 14	782	200	42	659
Stool. Piano	F. A. Porter	379,979	Mar. 27	1675	446	42	1310
Stool. Piano or other	W. Heap and J. T. Braund	392,800	Nov. 13	928	237	45	780
					238		
Stool. Store-counter	G. Scott	385,962	July 10	928	245	44	190
Stools. Folding stand for camp	A. Cooper	378,574	Feb. 28	1845	487	42	880
Stools. Foot-rest for	G. La Barbe	388,981	Sept. 4	259	68	44	1122
Stop box and cock	C. G. Ette	380,196	Mar. 27	1984	531	42	1370
Stop-motion	H. J. Johnson	384,040	June 5	297	83	43	1177
Stopper:							
See Bottle-stopper.	Leak-stopper.						
Can-stopper.	Vessel-stopper.						
Flue-stopper.							
Stopper-extractor	B. J. Greely	379,010	Mar. 6	220	59	42	1008
Stoppers. Thimble for casings of screw	H. Barrett and J. J. Varley	384,013	June 5	254	73	43	1170
Storage-battery	J. A. Enos	386,580	July 24	1845	488	44	384
Storage-battery	C. D. P. Gibson	382,968	May 15	1605	420	43	839
Storage-battery	L. Paget	393,573	Nov. 27	2049	537	45	1019
Storage-battery plate	C. D. P. Gibson	388,668	Aug. 28	2247	603	44	1024
Store-service apparatus	J. M. Akers	392,771	Nov. 13	8-5	226	45	771
Store-service apparatus	E. G. Bates	383,851	June 5	6	2	43	1122
Store-service apparatus	J. T. Cowley	378,542	Feb. 28	1795	474	42	870
Store-service apparatus	J. T. Cowley	391,026	Oct. 16	1194	317	45	246
					318		

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volum.		Official Gazette.	
				Spec.	Dee.	Vol.	Page.
Store-service apparatus .....	J. T. Cowley .....	391,027	Oct. 16	1198	{ 318 319	{ 45	247
Store-service apparatus .....	J. T. Cowley .....	394,557	Dec. 18	1227	{ 320 321	{ 45	1327
Store-service apparatus .....	J. T. Cowley .....	394,835	Dec. 18	1708	443	45	1421
Store-service apparatus .....	J. A. Duggan .....	380,315	Apr. 3	13	3	43	5
Store-service apparatus .....	G. R. Elliott .....	378,499	Feb. 28	1739	{ 458 459	{ 42	859
Store-service apparatus .....	T. P. Farmer .....	378,545	Feb. 28	1799	475	42	871
Store-service apparatus .....	J. H. Goodfellow .....	381,545	Apr. 24	1881	496	43	400
Store-service apparatus .....	J. H. Goodfellow .....	386,977	July 31	2449	644	44	508
Store-service apparatus .....	W. H. Gornall .....	390,853	Oct. 9	915	241	45	186
Store-service apparatus .....	W. H. Gornall .....	392,026	Oct. 30	2600	{ 707 708	{ 45	541
Store-service apparatus .....	H. Hebert .....	388,559	Aug. 28	2083	561	44	993
Store-service apparatus .....	C. W. McCormick .....	376,897	Jan. 24	1711	{ 444 449	{ 42	349
Store-service apparatus .....	R. A. Parker .....	393,785	Dec. 4	75	21	45	1087
Store-service apparatus .....	T. A. and F. D. Simonds and A. Beach .....	382,010	May 1	189	49	43	549
Store-service apparatus .....	N. E. Springsteen .....	386,362	July 17	1508	399	44	308
Store-service apparatus. Carrier for .....	M. F. Adams .....	378,537	Feb. 28	1786	471	42	869
Store-service apparatus switch .....	R. N. Dyer .....	391,495	Apr. 17	1801	479	43	367
Store-service apparatus. Switch for .....	H. L. Lovejoy .....	378,511	Feb. 28	1749	462	42	861
Store-service railways. Track for .....	R. A. McCarty .....	378,514	Feb. 28	1753	463	42	862
Store-service seat .....	H. L. Brown .....	392,495	Nov. 6	468	118	45	684
Stove .....	P. D. Beckwith .....	385,991	July 10	971	259	44	199
Stove .....	J. H. Brown .....	386,914	July 31	2359	{ 619 620	{ 44	490
Stove .....	J. V. B. Carter .....	382,511	May 8	959	242	43	702
Stove .....	M. S. Gage .....	384,517	June 12	1049	265	43	1322
Stove .....	H. N. Hatch .....	377,454	Feb. 7	160	37	42	525
Stove .....	H. Heim .....	393,231	Nov. 20	1535	402	45	908
Stove .....	W. J. Keep .....	382,531	May 8	989	{ 249 250	{ 43	707
Stove .....	W. J. Keep .....	388,979	Sept. 4	256	68	44	1121
Stove .....	A. L. Kendall .....	378,449	Feb. 28	1668	437	42	844
Stove .....	H. Lindas .....	385,938	July 10	965	241	44	185
Stove .....	G. R. Prowse .....	378,149	Feb. 21	1214	316	42	750
Stove .....	A. M. Sanders .....	393,269	Nov. 20	1592	418	45	919
Stove .....	W. Stephenson .....	376,454	Jan. 17	1037	{ 271 272	{ 42	213
Stove .....	H. Waterman .....	377,876	Feb. 14	812	207	42	604
Stove .....	K. Webse .....	384,300	June 12	690	{ 183 184	{ 43	1262
Stove .....	W. F. Zimmermann .....	387,940	Aug. 14	1129	{ 302 303	{ 44	797
Stove and range. Cooking .....	W. E. Prall .....	382,241	May 1	531	136	43	611
Stove attachment. Vapor .....	C. A. Stockstrom .....	390,624	Oct. 2	583	156	45	118
Stove attachment. Vapor-burner .....	C. A. Pope .....	387,253	Aug. 7	82	19	44	587
Stove-back .....	L. M. Devore and W. Greene .....	381,535	Apr. 24	1869	494	43	398
Stove-back .....	W. C. Metzner .....	381,713	Apr. 24	2122	554	43	449
Stove-block .....	W. Carroll and C. A. Hill .....	378,572	Feb. 28	1842	{ 486 487	{ 42	880
Stove burner. Vapor .....	Z. Davis .....	384,511	June 12	1003	202	43	1320
Stove burners. Valve mechanism for vapor .....	D. E. Dangler and H. Ruppel .....	376,518	Jan. 17	1128	295	42	230
Stove. Car .....	M. F. Helmer .....	385,555	July 3	331	86	44	67
Stove. Car .....	W. P. Wheeler .....	385,491	July 3	238	62	44	48
Stove. Center-draft bell-bottom base-burner heating .....	E. B. Thomas .....	392,494	Nov. 13	1056	272	45	806
Stove. Charcoal-burning cooking .....	C. Morse .....	388,435	Aug. 28	1918	512	44	961
Stove. Chemical .....	W. M. Conway .....	386,967	July 31	2432	639	44	505
Stove. Coal .....	W. F. Beecher .....	379,629	Mar. 20	1129	299	42	1194
Stove. Combined straw-burning heating and cooking .....	G. Laube .....	389,395	Sept. 11	907	237	44	1253
Stove. Cook .....	C. Rathbone .....	385,135	June 26	1947	497	43	1521
Stove. Cook .....	G. W. Walker .....	387,274	Aug. 7	106	28, 29	44	593
Stove. Cooking .....	A. Anderson .....	378,074	Feb. 21	1096	287	42	729
Stove. Cooking .....	W. J. Keep .....	381,793	Apr. 24	2223	583	43	469
Stove. Cooking .....	J. Strupp .....	383,418	May 22	2298	610	43	978
Stove. Cooking .....	G. W. Walker .....	377,471	Feb. 7	186	44	42	531
Stove-cover. Adjustable .....	S. Waterman .....	378,271	Feb. 21	1401	367	42	784
Stove-door .....	B. A. Baxter .....	391,574	Oct. 23	1948	525	45	401
Stove-door .....	W. F. Beecher .....	381,101	Apr. 17	1231	330	43	256
Stove-door .....	H. Myers .....	392,630	Nov. 13	674	168	45	730
Stove-door knob .....	G. E. Tyson and M. M. Deem .....	389,177	Sept. 4	575	146	44	1178
Stove-drum .....	G. Stephenson .....	376,115	Jan. 10	546	146	42	116
Stove for burning light fuel .....	R. O. Peyton .....	378,615	Feb. 28	1897	502	42	891
Stove for burning straw, &c .....	T. J. McBride .....	390,304	Oct. 2	141	40	45	31
Stove for cars, steamboats, &c .....	M. L. Teaff .....	394,795	Dec. 18	1638	429	45	1408
Stove for domestic purposes. Gas .....	J. Galli .....	387,870	Aug. 14	1006	262	44	773
Stove for heating oil for setting wagon-tires .....	R. Smith and T. N. Nicholson .....	388,923	Sept. 4	174	46	41	1106
Stove for heating railway-cars .....	E. W. Luce .....	386,330	July 17	1466	388	44	299
Stove for railway-cars .....	C. Bassini .....	377,057	Jan. 31	1932	507	42	399
Stove for railway-cars .....	J. T. Honchens .....	386,825	July 31	2229	586	44	465
Stove for railway-cars, &c .....	J. D. Schibli .....	386,353	July 17	1494	396	44	305
Stove. Gas .....	C. L. Bisbee .....	393,094	Nov. 20	1343	351	45	869
Stove. Gas .....	L. Bridge .....	383,793	May 29	2873	755	43	1099
Stove. Gas .....	A. S. Dinsmore .....	384,683	June 19	1259	{ 330 331	{ 43	1377
Stove. Gas .....	J. Keeling .....	386,473	July 24	1689	445	44	357
Stove. Gas .....	J. Laxton .....	390,377	Oct. 2	254	68	45	54
Stove. Gas .....	W. Moore .....	385,277	June 26	2160	552	43	1564
Stove. Gas .....	M. J. O'Reilly .....	383,316	May 22	2145	566	43	952
Stove. Gas .....	M. J. O'Reilly .....	394,004	Dec. 4	390	106	45	1146
Stove. Gas .....	J. J. H. Schlag .....	386,609	July 24	1878	496	44	392

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Stove. Gas.....	J. L. Sharp.....	380,355	Apr. 3	79	25	43	18
Stove. Gas.....	J. Smith and H. J. Boyd.....	380,732	Apr. 10	646	179	43	138
Stove. Gas.....	P. J. Van Wie.....	387,666	Aug. 14	709	182	44	716
Stove. Gasoline.....	A. Gateau.....	394,070	Dec. 4	489	131	45	1165
Stove-grate.....	H. W. Merritt.....	382,543	May 8	1013	258	43	712
Stove-grate.....	E. Walter.....	381,299	Apr. 17	1500	404	43	308
Stove. Heating.....	A. Besson.....	393,685	Nov. 27	2926	54	45	1054
Stove. Heating.....	J. W. Cummer.....	378,871	Mar. 6	23	6	42	971
Stove. Heating.....	O. P. Daly.....	376,076	Jan. 10	492	133	42	106
Stove. Heating.....	M. Hayden.....	394,360	Dec. 11	936	246	45	1260
Stove. Heating.....	E. Henn.....	382,158	May 1	411	107	43	5-9
Stove. Heating.....	L. C. Martin and J. W. Hart.....	393,018	Nov. 20	1242	322	45	849
Stove. Heating.....	M. Peckham.....	383,144	May 22	1897	494 495 496	43	905
Stove. Heating.....	J. A. Price.....	381,026	Apr. 10	1091	290 291	43	220
Stove. Heating.....	P. A. Reno.....	376,013	Jan. 3	399	106	42	80
Stove. Heating.....	C. H. L. Schlapp.....	378,979	Mar. 6	162	47	42	998
Stove. Heating.....	W. E. Walker and G. E. Wilbur.....	381,096	Apr. 10	1218	327	43	246
Stove. Heating.....	E. A. Wiman.....	382,930	May 15	1552	406	43	829
Stove. Heating and ventilating.....	M. Hayden.....	390,670	Oct. 9	653	175 176	45	138
Stove-hood.....	U. B. Newman.....	379,323	Mar. 13	669	181	42	1098
Stove-hood ventilator.....	A. S. Fisk.....	378,669	Feb. 28	1980	525	42	907
Stove. Hot-blast.....	J. L. Hunter.....	386,635	July 24	1911	505 506	44	399
Stove. Lamp.....	J. E. Wilbur.....	382,579	May 8	1071	274	43	724
Stove-lid.....	W. A. Martel.....	394,706	Dec. 18	1477	385	45	1374
Stove. Oil.....	G. B. Gaylord.....	383,805	May 29	2897	764 765	43	1103
Stove. Oil.....	P. J. Grinberg.....	384,618	June 19	1163	307 308	43	1358
Stove. Oil.....	G. Myers.....	384,382	June 12	819	213	43	1284
Stove. Oil, gas, or vapor.....	G. H. Gilbert.....	391,411	Oct. 23	1727	460 461	45	354
Stove. Open-front.....	H. Terstegge and R. H. Gohmann.....	389,612	Sept. 18	1237	323 324	44	1320
Stove or furnace.....	G. D. Blossom.....	378,161	Feb. 21	1231	334	42	753
Stove or furnace.....	F. A. Magee.....	390,684	Oct. 9	675	180 181	45	142
Stove or furnace.....	C. L. Ridgway.....	389,904	Sept. 25	1691	446 447	44	1417
Stove or furnace.....	C. L. Ridgway.....	391,559	Oct. 23	1928	519	45	397
Stove or furnace.....	J. S. Williams.....	392,899	Nov. 13	1062	275 276	45	898
Stove or furnace grate.....	C. D. Howard.....	387,163	July 31	2732	713	44	557
Stove or furnace grate.....	D. G. Littlefield.....	390,242	Oct. 2	67	19	45	17
Stove or furnace. Heating.....	C. L. Ridgway.....	389,902	Sept. 25	1688	445 446	44	1416
Stove or furnace. Heating.....	C. L. Ridgway.....	389,903	Sept. 25	1690	446	44	1417
Stove or furnace. Heating.....	C. L. Ridgway.....	391,274	Oct. 16	1542	408	45	312
Stove or furnace. Heating.....	C. L. Ridgway.....	391,426	Oct. 23	1748	467 468	45	358
Stove or furnace. Heating.....	C. L. Ridgway.....	391,427	Oct. 23	1749	468	45	358
Stove or furnace. Heating.....	C. L. Ridgway.....	391,428	Oct. 23	1750	468 469	45	359
Stove or furnace. Heating.....	L. L. Rowe.....	378,019	Feb. 14	1018	266	42	706
Stove or heater. Coal.....	M. H. Stockwell.....	393,932	Dec. 4	291	79	45	1128
Stove or range.....	E. W. Anthony.....	382,851	May 15	1444	379 380	43	807
Stove or range. Cooking.....	E. W. Anthony.....	379,354	Mar. 13	706	192	42	1105
Stove or range. Cooking.....	I. C. Schnyler.....	386,610	July 24	1879	496 497	44	392
Stove or range. Portable.....	T. J. Graff.....	395,131	Dec. 25	2181	562	45	1519
Stove-oven.....	G. F. Filley.....	377,378	Feb. 7	16	5	42	498
Stove. Parlor.....	M. Schneider.....	377,119	Jan. 31	2031	532	42	418
Stove. Petroleum cooking.....	F. Hildebrandt.....	382,425	May 8	819	209	43	675
Stove-pipe.....	U. D. Alexander.....	381,871	Apr. 24	2304	613 614	43	494
Stove-pipe.....	W. A. List.....	381,021	Apr. 10	10-4	288	43	219
Stove-pipe and collar holder.....	A. J. Spicer.....	389,984	Sept. 25	1806	478	44	1440
Stove-pipe coupling.....	A. Campbell.....	376,026	Jan. 3	423	112	42	84
Stove-pipe drum.....	M. J. Liddell.....	391,541	Oct. 23	1904	511	45	391
Stove-pipe elbow.....	T. S. Evans and F. R. Jackes.....	394,479	Dec. 11	1098	225	45	1289
Stove-pipe grooving machine.....	E. G. Wilcox.....	376,173	Jan. 10	640	171	42	134
Stove-pipe holder.....	W. S. Welsh.....	3-7,837	Aug. 14	959	249	44	764
Stove-pipe or flue cleaner.....	R. G. Smith.....	388,794	Aug. 28	2429	656	44	1059
Stove-pipe thimble.....	W. H. Packham.....	393,121	Nov. 20	1378	360	45	876
Stove-pipe thimble.....	A. Stanb.....	385,212	June 26	2056	527	43	1543
Stove-pipe thimble and cap.....	A. Williams.....	386,227	July 17	1328	351	44	274
Stove-pipe ventilator.....	J. P. Ekstrom.....	379,774	Mar. 20	1337	357	42	1236
Stove-pipes. Shelf attachment for.....	W. J. and S. H. Young and Z. U. Knode.....	387,277	Aug. 7	111	30	44	594
Stove-polish.....	L. Bullard.....	389,636	Sept. 18	1276	.....	44	1327
Stove-polish.....	J. F. Stearns.....	3-9,986	Sept. 25	1808	.....	44	1440
Stove-polish.....	C. Zimmerling.....	385,335	June 26	2256	.....	43	1581
Stove. Regenerative hot-blast.....	H. A. Laughlin.....	379,707	Mar. 20	1243	331	42	1217
Stove. Safety car.....	J. S. Roblin.....	385,428	July 3	140	38	44	29
Stove. Safety self-extinguishing car.....	R. M. Bache.....	376,275	Jan. 10	777	206	42	159
Stove. Self-feeding cooking.....	C. E. King.....	384,207	June 5	544	149 150	43	1226
Stove-shelf.....	H. Terstegge.....	389,945	Sept. 25	1746	462	44	1428
Stove. Straw-burning.....	F. Girtanner.....	378,786	Feb. 28	2135	565	42	935



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Stove. Straw-burning cook-.....	G. Laube .....	383,392	Sept. 11	903	{ 235 236 237 }	44	1252
Stove. Straw-burning cook-.....	G. Laube .....	389,394	Sept. 11	906	{ 236 237 238 }	44	1253
Stove. Straw-burning cooking.....	J. B. Prendergast and H. Tallakson.	394,997	Dec. 25	1978	510	45	1460
Stove. Vapor.....	Z. Davis .....	383,870	June 5	30	10	43	1127
Stove. Vapor.....	Z. Davis .....	386,693	July 24	1995	527	44	414
Stove. Vapor.....	F. J. Hubbard .....	387,786	Aug. 14	883	228	44	719
Stove. Vapor.....	M. L. Hull .....	377,159	Jan. 31	2076	546	42	428
Stove. Vapor.....	A. J. Lindemann .....	390,870	Oct. 9	934	246	45	189
Stove. Vapor.....	B. Rein .....	384,391	June 12	829	{ 215 216 }	43	1286
Stove. Vapor.....	J. B. Wallace .....	380,611	Apr. 3	458	130	43	93
Stove. Vapor.....	J. B. Wallace .....	382,021	May 1	212	56	43	532
Stove. Vapor or gas.....	H. Flynt .....	377,850	Feb. 14	774	198	42	657
Stove ventilator. Cook.....	J. F. Linscott .....	380,500	Apr. 3	290	84, 85	43	59
Stoves. Adjustable grate for.....	W. H. H. Spaulding .....	376,752	Jan. 24	1492	393	42	309
Stoves. Boiler attachment for.....	A. Greenaway .....	390,854	Oct. 9	916	{ 241 242 }	45	186
Stoves. Burner for gas cooking.....	I. F. Kearns .....	393,764	Dec. 4	44	13	45	1080
Stoves. Burner for gas or vapor.....	S. Daniels .....	377,547	Feb. 7	297	76	42	552
Stoves. Cut-off for gasoline.....	P. A. Reedy .....	387,656	Aug. 14	699	180	44	713
Stoves. Detachable fire-pan for.....	G. N. Howe .....	388,976	Sept. 4	252	67	44	1120
Stoves. Device for regulating the flames of vapor.....	F. J. Hubbard .....	377,560	Feb. 7	316	81	42	556
Stoves. Dust-due for.....	J. A. Buckwalter .....	383,386	May 22	2248	598	43	970
Stoves. Feed-regulator for oil.....	F. S. Mason .....	376,446	Jan. 17	1026	269	42	212
Stoves. Fire-pot for.....	W. J. Keep .....	382,000	May 1	324	84	43	572
Stoves. Lining for the fire-pots of.....	S. Kops .....	394,494	Dec. 11	1116	290	45	1293
Stoves or furnaces. Heat-regulator for.....	L. D. Farrar .....	387,713	Aug. 14	789	303	44	730
Stoves or ranges. Portable fuel-magazine for cooking.....	M. G. Tonsley .....	390,997	Oct. 9	1131	299	45	227
Stoves or ranges. Shelf for.....	J. F. Brayer .....	394,093	Dec. 4	522	140	45	1171
Stoves. Oven-door for.....	W. J. Andrews .....	392,485	Nov. 6	455	114	45	681
Stoves. Oven for cooking.....	J. Ran .....	383,147	May 22	1903	497	43	906
Stoves. Oven for gasoline, gas, or coal-oil.....	A. Geisel .....	385,348	July 3	13	4	44	5
Stoves. Oven for vapor.....	H. Flynt .....	378,301	Feb. 21	1445	377	42	792
Stoves. Portable tin oven for oil or gas.....	A. W. Shumway .....	385,830	May 29	2933	775	43	1111
Stoves. Regulating mantle.....	M. Schneider .....	393,859	Dec. 4	183	50	45	1106
Stoves. Reservoir for oil.....	G. M. Voltz .....	389,425	Sept. 11	948	243	44	1261
Stoves. Straw-burning attachment for.....	M. T. Andrews .....	389,351	S pt. 11	836	213	44	1240
Stoves. Soot-collector for gasoline.....	M. M. Joslyn .....	378,508	Feb. 28	1747	461	42	861
Stoves. Summer-piece for.....	J. H. Keyser .....	394,702	Dec. 18	1470	384	45	1373
Stoves. Valve-seat for hot-blast.....	P. T. Berg .....	392,179	Nov. 6	6	2, 3	45	596
Stoves. Vapor-burner for gas.....	C. H. Shultz .....	377,407	Feb. 7	58	16	42	506
Stoves. Ventilating-flue for.....	W. J. Keep .....	384,696	June 19	1294	338	43	1383
Straightening-machine.....	W. A. McCool .....	388,701	Aug. 28	2297	618	44	1033
Strainer.....	A. Boss .....	385,295	June 26	2195	561	43	1570
Strainer. Conductor.....	P. Drendel .....	380,873	Apr. 10	856	231	43	176
Strainer. Drink.....	C. B. Hopkins .....	384,977	June 26	1691	440	43	1468
Strainer for water under pressure.....	T. Lee .....	376,324	Jan. 10	846	223	42	171
Strainer. Milk.....	A. Bowditch .....	385,091	June 26	1882	481	43	1507
Strainer. Milk.....	G. W. Knapp .....	383,307	May 22	2135	563	43	950
Strainer. Milk.....	A. Thomson .....	385,582	July 3	374	97	44	74
Strainer. Milk.....	G. Truhel .....	394,798	Dec. 18	1642	430	45	1409
Strainer or filter. Coffee.....	T. Babin .....	384,411	June 12	858	223	43	1292
Strap:							
See Binding-strap. Harness-strap.							
Breast-strap. Shawl-strap.							
Car-bell strap.							
Strap-clasp.....	M. Vandercook and R. T. Bush.....	376,996	Jan. 24	1844	487	42	375
Strap-connection.....	C. J. Luce .....	394,780	Dec. 18	1610	422	45	1403
Strap-edging machine.....	J. N. Farlow .....	384,029	June 5	278	78	43	1174
Strap-fastener. Metallic.....	E. Latham .....	389,518	Sept. 11	1084	247	44	1266
Strap or rein fastener.....	C. H. Zeis .....	387,478	Aug. 7	409	107	44	653
Straps. Keeper for the loose ends of.....	H. Sherman .....	391,763	Oct. 23	2202	595	45	453
Straw. Artificial.....	M. C. Stone .....	375,962	Jan. 3	324	86	42	67
Straw-burner.....	G. Laube .....	391,254	Oct. 16	1508	400	45	306
Straw-burner.....	G. Laube .....	391,255	Oct. 16	1510	401	45	306
Straw-carriers. Slat-fastener for.....	D. W. Pratt .....	391,555	Oct. 23	1925	518	45	296
Straw or hay burning furnace.....	G. Laube .....	392,812	Nov. 13	947	242	45	784
Straw-stacker.....	J. C. Eckstine .....	377,243	Jan. 31	2202	{ 580 581 }	42	452
Straw-stacker.....	A. Furst .....	376,873	Jan. 24	1679	{ 438 439 }	42	342
Straw-stacker.....	F. E. Gilmore .....	390,016	Sept. 25	1844	439	44	1447
Straw-stacker.....	M. Heinicke .....	384,974	June 26	1688	{ 438 439 }	43	1467
Straw-stacker.....	A. Lammedee .....	385,634	July 3	456	118	44	89
Straw-stacker.....	G. W. Stephan .....	394,666	Dec. 18	1417	{ 369 370 }	45	1332
Straw-stacker.....	A. W. Stranghn .....	377,723	Feb. 7	555	142	42	599
Straw-stacking machine.....	W. S. Baker .....	389,538	Sept. 18	1110	293	44	1298
Street and station indicator.....	J. B. Archer .....	380,307	Apr. 3	2	1	43	3
Street and station indicator.....	R. W. Boisselier .....	394,052	Dec. 4	466	125	45	1160
Street and station indicator.....	F. H. Cheyne .....	388,828	Sept. 4	29	9	44	1078
Street and station indicator.....	S. M. Friede .....	383,392	May 22	2235	600	43	971
Street and station indicator.....	M. J. Watson .....	382,065	May 1	282	75	43	515
Street and station indicator. Automatic.....	S. M. Friede .....	391,700	Oct. 23	2118	{ 572 573 }	45	435
Street-box and shut-off for water, gas, or other fluid service.....	E. Lindsley .....	383,472	May 29	2390	636	43	1003
Street-cleaner.....	E. P. Nash .....	379,875	Mar. 20	1520	400	42	1270
Street-curb.....	A. B. Hoplin .....	379,401	Mar. 13	778	210	42	1119
Street or station indicator.....	M. Anthony .....	385,985	July 10	963	{ 256 257 }	44	197

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Street or station indicator .....	C. F. Niklaus .....	388,709	Aug. 28	2308	{ 620 621	{ 44	1036
Street or station indicator and card-displaying device.	W. A. Turner .....	394,741	Dec. 18	1539	403	45	1388
Street or station indicator. Automatic .....	S. M. Friede .....	391,699	Oct. 23	2114	572	45	435
Street or station indicators. Device for actuating .....	W. A. Turner .....	389,122	Sept. 4	484	124	44	1163
Street-roller .....	F. Orlikowski .....	394,129	Dec. 4	575	154	45	1181
Street-sprinkler .....	J. W. Lischer .....	392,043	Oct. 30	2629	{ 714 715	{ 45	546
Street-sprinkler. Railway .....	J. R. Gathright .....	378,672	Feb. 28	1985	526	42	908
Street-sweeping machine .....	W. Haas .....	378,002	Feb. 14	998	{ 260 261	{ 42	702
Street-sweeping machine .....	H. Snyder .....	380,534	Apr. 3	341	97, 98	43	70
Street-washer. Non-freezing .....	C. G. Ette .....	385,602	July 3	405	103	44	79
Strength-testing machine. Coin-controlled .....	J. Devantery .....	385,921	July 10	880	203	44	180
Stringed instruments. Bow for .....	E. Latchmore .....	384,045	June 5	304	86	43	1179
Stringed instruments. Mechanism for playing .....	C. S. Crawford .....	389,137	Sept. 4	504	{ 128 129	{ 44	1166
Stringed instruments. Tail-piece for .....	S. M. Burson .....	383,276	May 22	2091	549	43	942
Stringed instruments. Tail-piece for .....	W. Gerke .....	377,068	Jan. 31	1053	513	42	403
Strong box or coffer .....	W. C. Kidney .....	384,855	June 19	1523	396	43	1427
Structural articles. Composition for surfacing .....	T. McSweney .....	381,882	Apr. 24	2380	.....	43	497
Structural bar. Compound .....	J. S. Heath and E. C. Waters .....	378,003	Feb. 14	999	261	42	702
Stub-holder .....	J. M. Berry. (Reissue) .....	10,905	Mar. 6	493	138	42	1059
Stub-holder .....	J. M. Berry, Jr. .....	376,062	Jan. 10	472	126	42	102
Stud or button. Shirt .....	G. A. Bowman .....	393,416	Nov. 27	1812	478	45	970
Stud or hook setting machine .....	S. D. Tripp .....	394,228	Dec. 11	728	193	45	1219
Studs. Machine for setting lacing .....	L. Jones .....	379,702	Mar. 20	1236	329	42	1216
Studs or pillars. Forming ornamental .....	J. Burkhardt .....	378,414	Feb. 21	1605	421	42	824
Stuffing-box .....	A. H. Clark .....	384,424	June 12	874	228	43	1295
Stump-extractor .....	H. C. Bell .....	386,957	July 31	2420	636	44	502
Stump-extractor .....	J. Cornelius .....	393,541	Nov. 27	2014	{ 526 527	{ 45	1011
Stump-extractor .....	O. L. Gallup .....	378,500	Feb. 28	1740	459	42	859
Stump-extractor .....	A. C. Hall .....	385,457	July 3	186	49	44	37
Stump-extractor .....	O. F. B. Rolapp .....	380,351	Apr. 3	71	23	43	17
Stump-extractor .....	G. M. Stroup .....	381,861	Apr. 24	2348	609	43	490
Stump-extractor and log-mover .....	J. C. Burke and C. Krueger .....	385,340	July 3	5	2	44	3
Stump-extractors. Chain-coupling for .....	W. H. Borden .....	382,451	May 8	866	221	43	683
Stump-puller .....	A. P. Copp and J. M. Remaley .....	394,155	Dec. 11	615	{ 164 165	{ 45	1198
Stump-puller .....	L. Lafo .....	382,096	May 1	332	86	43	574
Stump-puller .....	J. M. Moore .....	390,390	Oct. 2	275	72, 73	45	59
Stump-puller .....	R. R. Tichenor and P. Walker .....	383,198	May 22	1966	516	43	918
Submarine torpedo-vessel .....	C. D. Shepard .....	379,991	Mar. 27	1689	451	42	1313
Submarine vessel .....	C. D. Shepard .....	379,992	Mar. 27	1693	452	42	1314
Sugar-evaporator .....	E. B. Everingham .....	388,546	Aug. 28	2065	556	44	991
Sugar from sorghum. Diffusion apparatus for the extraction of .....	H. A. Hughes .....	395,145	Dec. 25	2206	567	45	1524
Sulky .....	M. McCormick .....	377,045	Jan. 31	1911	502	42	395
Sulky. Trotting .....	W. E. Lamson .....	377,035	Jan. 31	1901	500	42	393
Sulky. Trotting .....	J. W. Vaughn .....	389,267	Sept. 11	717	183	44	1216
Sulphite solutions. Production of .....	A. Frank .....	376,189	Jan. 10	658	.....	42	137
Sulphite solutions. Production of .....	A. Frank .....	376,190	Jan. 10	659	.....	42	137
Sulphur. Making neutral compounds of chloride of .....	A. Sommer .....	389,020	Sept. 4	312	.....	44	1132
Sulphuric anhydride. Producing .....	E. Hämisch and M. Schroeder .....	381,841	June 19	1503	391	43	1424
Sunshade for vehicles .....	L. V. Luce .....	390,790	Oct. 9	825	220	45	170
Superheater and burner. Hydrocarbon .....	C. T. Schoen .....	379,979	Mar. 20	1529	403	42	1272
Supply-check and waste-pipe valve .....	J. Faulkner .....	384,833	June 19	1488	388	43	1420
Support. Extensible .....	J. Kintz .....	389,844	Sept. 18	1576	417	44	1387
Supporter:							
See A b d o m i n a l sup- porter.	Lantern-supporter.						
Boot or shoe sup- porter.	Napkin-supporter.						
Coat and pantaloons supporter.	Pantaloons-supporter.						
Coat and pantaloons supporter.	Pants-supporter.						
Cuff-supporter.	Shaft-supporter.						
Garment-supporter.	Stocking-supporter.						
Hose-nozzle sup- porter.	Table-leaf supporter.						
Trace-supporter.							
Surface and scratch gage .....	W. H. Stedman .....	375,901	Jan. 3	230	63	42	49
Surface-gage .....	H. C. Balsbaugh .....	380,740	Apr. 10	655	181	43	140
Surface-gage .....	N. Linsley and C. E. Ferry .....	341,937	May 1	52	14	43	525
Surface-gage .....	E. Smith .....	391,488	Oct. 23	1834	491	45	376
Surgeon's appliance .....	O. Schlatter, A. Schmid, and H. Bartscher .....	376,264	Jan. 10	766	203	42	157
Surgeon's silk or catgut. Package of .....	J. E. Lee .....	385,937	July 10	904	240	44	185
Surgeon's splint .....	W. H. De Camp .....	385,507	July 3	263	67	44	53
Surgeon's suture-carrier .....	J. T. Woods .....	385,586	July 3	381	98	44	76
Surgical bandages. Making .....	W. B. and E. Robinson .....	378,178	Feb. 21	1252	330	42	757
Surgical chair .....	F. E. Case. (Reissue) .....	10,906	Mar. 6	494	{ 138 139	{ 42	1059
Surgical dressings. Packing antiseptic textile .....	E. J. Wood .....	393,874	Dec. 4	212	57	45	1112
Surgical knife .....	J. Schmitt .....	394,304	Dec. 11	848	225	45	1242
Surgical knife .....	W. Schott .....	380,698	Apr. 10	595	163	43	128
Surgical or other instrument case .....	W. R. Leonard .....	391,540	Oct. 23	1903	510	45	391
Surgical splint .....	A. Caller .....	377,145	Jan. 31	2050	{ 540 541	{ 42	425
Surgical splint .....	J. E. Lee .....	390,176	Sept. 25	2093	558	41	1498
Surgical table .....	B. H. Daggett .....	386,916	July 31	2362	630	44	490
Surgical table .....	L. E. Russell .....	395,001	Dec. 25	1923	512	45	1481
Suspender attachment .....	M. Gordon .....	389,072	Sept. 4	3-6	101	41	1146
Suspender attachment .....	C. H. Seales .....	382,834	May 15	1422	373	43	803
Suspender-clasp .....	J. F. Molloy. (Reissue) .....	10,964	Oct. 30	2811	771	45	588

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Suspender-end	J. Lanferty	390,303	Oct. 2	140	40	45	31
Suspender-end	T. B. Pell and J. W. Knox	394,721	Dec. 18	1499	391	45	1380
Suspender-end	E. G. Pullum	393,581	Nov. 27	2061	539	45	1022
Suspender-fastening	H. Fried	381,833	Apr. 24	2301	598	43	482
Suspenders	F. L. Akerley	385,898	July 10	852	225	44	175
Suspenders	T. D. Day	379,374	Mar. 13	742	201	42	1112
Suspenders	P. C. Dodge	387,054	July 31	2547	670	44	527
Suspenders	V. Dubreuil	386,973	July 31	2440	642	44	506
Suspenders	J. Katzenberg	384,528	June 12	1032	269	43	1324
Suspenders	A. A. Mandell	386,482	July 24	1700	449	44	358
Suspenders	A. A. Mandell	386,483	July 24	1701	449	44	358
Suspenders	M. Rubin	391,721	Oct. 23	2146	580	45	411
Suspenders	W. Sachs	392,536	Nov. 6	513	129	45	692
Suspenders	J. W. Smith	390,265	Oct. 2	95	27	45	92
Suspenders	W. H. Wetmore	387,129	July 31	2679	702	44	549
Suspenders	H. A. Williams	391,218	Oct. 16	1460	389	45	297
Suspenders	C. Voorhis	376,997	Jan. 24	1845	487	42	375
Suspenders. Display-card for	W. I. Tuttle	392,576	Nov. 6	583	147	45	707
Suspending articles. Device for	E. Blackman	384,187	June 5	512	140	43	1220
Suspending device	S. U. Braustetter	391,450	Oct. 23	1784	476	45	365
Suspending device	C. R. Fay	383,873	June 5	34	11	43	1128
Suspension device	N. Jenkins	376,657	Jan. 17	1239	352	42	270
Suspension device	G. W. McGill	392,519	Nov. 6	500	126	45	690
Suspension-hook	R. W. S. Barraclough	375,978	Jan. 3	346	93	42	70
Suspensory	B. Galland	378,304	Feb. 21	1499	378	42	793
Swaging and compressing machine.	H. H. Taylor	391,825	Oct. 30	2311	627	45	484
Sweat-pad	C. J. Gustafson	383,051	May 15	1758	454	43	868
Sweat-pad	O. P. Howe	382,702	May 15	1252	327	43	768
Sweat-pad fastener	J. S. Cusson	383,388	May 22	2250	599	43	970
Sweat-pad fastener	E. Q. Darr	378,239	Feb. 21	1353	357	42	776
Sweat-pad fastener	A. Hobt	377,715	Feb. 7	546	140	42	597
Sweat-pad fastening	E. F. Pfueger	395,171	Dec. 25	2350	578	45	1532
Sweat-pad hook	C. J. Gustafson	377,152	Jan. 31	2070	543	42	437
Sweep	J. T. Goode	382,522	May 8	976	246	43	704
Swimming apparatus	C. W. Petersen	377,638	Feb. 7	431	110	42	577
Swing	A. Bettes	383,553	May 29	2518	664	43	1027
Swing	W. A. Caldwell	389,834	Sept. 18	1561	413	44	1385
Swing	G. A. Dumbreck	379,768	Mar. 20	1329	355	42	1234
Swing	T. Folks	390,851	Oct. 9	912	241	45	185
Swing	H. A. Goebel	377,300	Feb. 7	19	7	42	498
Swing	J. D. Hays	382,303	May 8	637	162	43	641
Swing. Wind-propelled	T. J. Simpson	386,358	July 17	1501	398	44	307
Swinging gate	W. Gopford	379,457	Mar. 13	862	233	42	1136
Swinging gate	D. Scott	389,413	Sept. 11	931	245	44	1258
Swinging gate	H. Sipe	380,772	Apr. 10	707	195	43	150
Swinging gate	O. West	376,358	Jan. 10	893	234	42	180
Switch:							
See Automatic switch.	Interlocking switch.						
Car-switch.	Lamp-switch.						
Electric switch.	Railway-switch.						
Electric-circuit switch.	Railway automatic switch.						
Electric-light-circuit cut-off switch.	Safety-switch.						
Electric-motor switch.	Spring-jack switch.						
Electrical switch.	Store-service-apparatus switch.						
Electro-magnetic switch.	Telephone-switch.						
Progress switch.	Three-way split switch.						
Progress switch.	Tramway-switch.						
Switch and signal. Interlocking	J. J. Turner	381,093	Apr. 10	1214	{ 325 326 440 }	{ 43 43 43 }	244
Switch-board	C. E. Scribner	383,014	May 15	1693	440	43	855
Switch-boards. Wiring	J. A. and F. B. Cook	385,846	July 10	767	{ 201 202 }	{ 44 44 }	156
Switch, circuit-breaker, &c	J. Von der Kammer	381,446	Apr. 17	1732	463	43	354
Switch for adjustable resistances	P. Lange	383,647	May 29	2640	699	43	1054
Switch for overhanging tracks	E. S. Ellis	386,871	July 31	2294	603	41	477
Switch for overhanging tracks	E. S. Ellis	386,872	July 31	2296	603	44	478
Switch for overhead conductors	C. J. Van Depoele	393,278	Nov. 20	1611	{ 421 422 }	{ 45 45 }	923
Switch for tracks for carrying iron	E. A. Kern	388,688	Aug. 28	2275	611	44	1029
Switch-lock	A. Pellock	383,654	May 29	2649	701	43	1056
Switch-lock. Electric	E. L. Orett	387,365	Aug. 7	245	63	44	619
Switch-operating attachment.	J. P. Tryner and C. E. Glessner	389,947	Sept. 25	1747	462	44	1428
Switch-operating mechanism	A. K. Mansfield	386,020	July 10	1007	268	44	206
Switch or circuit-changer	W. W. Griscom	393,365	Nov. 27	1739	460	45	956
Switch or circuit-changer	W. W. Griscom	394,568	Dec. 18	1257	329	45	1333
Switch-point guard	P. R. Randall	379,809	Mar. 20	1403	373	42	1249
Switch-signal	E. R. E. Cowell	386,057	July 10	1058	283	44	216
Switch-signal	A. F. Martel	385,363	July 3	39	12	44	10
Switch-stand	D. Bowen. (Reissue)	10,970	Dec. 4	602	{ 161 162 }	{ 45 45 }	1187
Switch-stand	G. E. Lenhart	383,738	May 29	2772	730	43	1081
Switch-stand	W. A. Redding	384,714	June 19	1312	313	43	1386
Switch-stand	F. W. Snow	375,900	Jan. 3	929	62	42	48
Switch-stand	A. A. Strom	378,024	Feb. 14	1024	268	42	707
Switch-stand	D. Tracy	378,025	Feb. 14	1025	268	42	708
Switches and semaphores. Mechanism for operating derailing	W. Gravit	383,947	June 5	156	46	43	1150
Switches. Guide-bar for stub	F. Nemacheck	387,803	Aug. 14	909	235	44	753
Sword	J. Lytle	384,584	June 12	1113	295	43	1339
Syringe	C. M. Barton	380,673	Apr. 10	560	154	43	122
Syringe	A. W. Brinkerhoff	383,940	June 5	149	43	43	1149

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr't.	Vol.	Page.
Syringe .....	J. M. Coombs .....	394,250	Dec. 11	762	{ 201 202 }	45	1225
Syringe .....	J. A. Dunn .....	388,029	Aug. 21	1262	343	44	832
Syringe .....	A. C. Eggers .....	391,696	Oct. 23	2106	570	45	433
Syringe .....	T. M. Healey .....	381,622	Apr. 24	1993	523	43	423
Syringe .....	W. Streetman .....	381,511	Apr. 17	1828	483	43	373
Syringe .....	B. F. Sutton .....	383,257	May 22	2062	541	43	937
Syringe. Dilating .....	B. T. Parsons .....	393,580	Nov. 27	2060	539	45	1022
Syringe. Hot-air .....	E. T. Starr .....	382,612	May 1	192	50	43	549
Syringe. Vaginal .....	S. W. Beall .....	376,727	Jan. 24	1449	381	42	301
Syringe. Vaginal .....	J. M. Combs .....	385,911	July 10	871	236	44	179
Syringe. Vaginal .....	D. J. Terrell .....	388,510	Aug. 28	2017	542	44	981
Syringing apparatus .....	T. E. Ogram .....	386,555	July 24	1813	479	44	378
Table:							
See Billiard-table. Railway turn-table.							
Bloom shear-table. Sewing-machine table.							
Combination-table. Sheep shearing and tag-							
Extension-table. ging table.							
Folding table. Specking, burling, and							
Glass-cutting table. knobbing table.							
Ironing-table. Surgical table.							
Kitchen-table. Trimming-table.							
Operating-table. Turn-table.							
Pool and billiard table.							
Table .....	W. Armstrong .....	390,938	Oct. 9	1038	274	45	210
Table .....	O. F. Greves .....	379,780	Mar. 20	1349	{ 359 360 }	42	1238
Table .....	T. Martin .....	393,841	Dec. 4	156	42	45	1101
Table .....	C. W. H. Schubert .....	387,453	Aug. 7	377	98	44	647
Table .....	G. Wolz .....	383,333	May 22	2163	572	43	955
Table and cot. Combined .....	F. M. Tribbey .....	389,911	Sept. 25	1699	{ 449 450 }	44	1419
Table and lamp. Combined .....	J. Kintz .....	384,857	June 19	1527	397	43	1428
Table and sofa. Combined .....	J. E. Alden .....	378,995	Mar. 6	200	54, 55	42	1004
Table attachment. Card .....	L. Drude and E. St. Arnaud .....	378,241	Feb. 21	1355	357	42	777
Table attachment. Card .....	L. Drude and E. St. Arnaud .....	378,242	Feb. 21	1356	357	42	777
Table knife or fork .....	H. C. Hart .....	388,970	Sept. 4	243	64	44	1118
Table-leaf support .....	H. J. Chapman .....	382,952	May 15	1587	414	43	835
Table-leaf support .....	F. A. Harter .....	376,594	Jan. 17	1229	323	42	251
Table-leaf supporter. Automatic .....	J. L. Ulsh .....	390,145	Sept. 25	2037	543	44	1488
Table-slide .....	W. S. Craig .....	387,149	July 31	2702	708	44	553
Table-ware .....	J. A. Kimball .....	381,795	Apr. 24	2231	584	43	469
Tablet or plate for displaying luminous figures .....	T. G. H. Nicholson .....	394,386	Dec. 11	973	256	45	1267
Tablets. Detachable backing frame or case for drawing.	B. E. Forbriger .....	391,602	Oct. 23	1986	535	45	469
Tack-driver. Automatic .....	J. H. Montgomery .....	383,478	May 29	2397	638	43	1005
Tack-driving machine .....	E. Woodward .....	389,275	Sept. 11	734	{ 186 187 }	44	1219
Tack-heading machine. Strip .....	G. W. Copeland .....	383,278	May 22	2093	550	43	942
Tack or nail holder .....	W. H. De Puy .....	383,516	May 29	2455	650	43	1015
Tack strip. Lasting .....	F. Chase .....	391,688	Oct. 23	2097	568	45	431
Tack-strips. Machine for heading .....	J. E. Crisp .....	385,747	July 10	634	163	44	129
Tack-strips. Machine for heading .....	E. F. Grandy and G. W. Copeland .....	385,753	July 10	636	165	44	132
Tackle-block straps and hooks. Machine for forming.	E. Fletcher .....	375,928	Jan. 3	271	{ 73 75 }	42	57
Tag .....	C. H. Gurney .....	376,033	Jan. 3	432	115	42	87
Tag .....	A. M. Osmun .....	389,000	Sept. 4	276	74	44	1126
Tag .....	E. B. Webster .....	375,968	Jan. 3	330	88	42	68
Tag .....	T. J. Ynud .....	385,083	June 26	1871	478	43	1505
Tag and manufacture of same .....	W. P. Kidder .....	377,169	Jan. 31	2018	529	42	415
Tag-fastener .....	C. W. Sheppard .....	385,965	July 10	931	246	44	190
Tag-holder .....	E. F. Goodwin .....	383,523	May 29	2473	653	43	1018
Tag-holder and hasp-lock. Combined .....	R. W. Greene .....	378,393	Feb. 21	1570	412	42	818
Tag hook or needle .....	O. H. Hunter .....	377,160	Jan. 31	2078	546	42	429
Tag. Marking .....	S. Dancyger .....	379,054	Mar. 6	283	83	42	1019
Tag or label for poultry .....	I. J. True .....	381,598	Apr. 24	1960	516	43	417
Tailor's charcoal-iron .....	F. W. Eisenberg .....	378,297	Feb. 21	1441	376	42	791
Tailor's goose .....	F. W. Eisenberg .....	392,595	Nov. 13	620	155	45	720
Tallow and chloride of sulphur. Compound of .....	A. Sommer .....	389,021	Sept. 4	313	.....	44	1132
Tally. Base-ball-umpire's .....	R. Robyn .....	394,369	Dec. 11	991	260	45	1270
Tally. Grain .....	R. R. Howell .....	377,158	Jan. 31	2075	{ 545 546 }	42	428
Tally. Grain .....	R. McDonald .....	393,777	Dec. 4	62	18	45	1084
Tamping-tool .....	W. B. Waldron and G. C. Boller .....	376,565	Jan. 17	1184	312	42	242
Tamping-tools. Attachment for .....	W. B. Waldron and G. C. Boller .....	393,945	Dec. 4	305	84	45	1131
Tampon .....	S. C. Dayan .....	393,546	Nov. 27	2020	528	45	1013
Tan-vat .....	J. Head .....	380,890	Apr. 10	890	238	43	182
Tank:							
See Flushing-tank. Water-tank.							
Measuring-tank. Water-closet tank.							
Railway water-tank. Water-closet supply-tank.							
Service-tank.							
Tank .....	N. Sorensen .....	383,194	May 22	1962	514	43	918
Tank-heater .....	A. J. Upham .....	387,462	Aug. 7	390	101	44	649
Tanks and similar vessels. Composition for lining petroleum.	P. Melyneax .....	380,398	Apr. 3	136	.....	43	29
Tanks. Attachment for supply .....	W. B. Chamberlin .....	376,292	Jan. 10	799	211	42	163
Tanks. Automatic valve for water .....	C. H. Harkins .....	379,159	Mar. 6	424	120	42	1046
Tanks, &c. Device for operating the bottom doors of steep.	W. Toepler .....	390,533	Oct. 2	477	125	45	96
Tanned skin .....	V. Rivière .....	379,726	Mar. 20	1271	.....	42	1223
Tannery-hoist .....	A. F. Jones .....	375,938	Jan. 3	289	78	42	60
Tannin extracts. Manufacture of .....	H. M. Rau .....	376,345	Jan. 10	877	.....	42	177

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Tanning	C. H. Perrin	387,597	Aug. 7	617		44	690
Tanning	L. M. Waer, J. H. Phillips, and W. S. Kengla.	375,845	Jan. 3	160		42	36
Tanning	A. Warter and H. C. Koegel	380,708	Apr. 10	608		43	130
Tanning hides. Composition of matter for	L. B. Snow and J. Howard	383,379	May 22	2928		43	967
Tanning process	W. Zahn	385,222	June 26	2069		43	1545
Tanning. Rapid	J. Hoelck	389,150	Sept. 4	535		44	1171
Tap	H. Ke stad	331,161	Oct. 16	1385	368	45	281
Tap. Collapsing	J. T. Hayden	378,310	Feb. 21	1158	380	42	795
Tap. Collapsing	B. B. Switzer	378,380	Feb. 21	1554	406	42	814
Tap-cutting machine	H. E. Boyd	392,582	Nov. 13	600	150 151	45	716
Tap-driving head	S. D. Leland	393,511	Nov. 27	1963	511 512	45	1001
Tap or die stock	B. F. Smith	391,655	Oct. 23	2056	556	45	424
Tap-valve for barrels	P. F. Murray and J. F. Cooney	387,802	Aug. 14	908	235	44	753
Tap with detachable cutters	A. M. Burritt	385,543	July 3	315	81	44	64
Tapping-machine	A. T. Miller	377,400	Feb. 7	49	14	42	505
Tapping mains. Device for	C. H. Simmons	378,116	Feb. 21	1157	301	42	741
Tapping pipe-elbows. Machine for	T. F. Hammer	382,606	May 8	1109	285	43	731
Tapping steam, gas, or water fittings. Machine for	A. M. Burritt	379,761	Mar. 20	1318	351	42	1232
Tapping steam, gas, or water fittings. Machine for	A. M. Burritt	381,053	Apr. 10	1141	305	43	230
Tapping water or other mains. Valve-saddle for	A. Letzkus	390,490	Oct. 2	410	166	45	84
Target	J. Gisel	387,411	Aug. 7	311	80	44	632
Target and indicating device therefor	T. B. Ralston	381,028	Apr. 10	1097	291	43	221
Target. Flying	F. Erb, Jr	383,348	May 22	2186	578	43	960
Target. Illuminated flying	J. H. Jacobs	393,435	Nov. 27	1836	483 484	45	975
Target. Self-registering	W. K. Wright and W. H. Brown	381,517	Apr. 17	1838	466	43	375
Target-trap	B. Teipel	387,268	Aug. 7	99	25	44	591
Target-traps. Apparatus for springing	A. C. Dick	383,446	May 29	2339	621	43	993
Targets. Means for packing flying	F. C. Damm	377,603	Feb. 7	381	97	42	568
Targets. Projectile-receiver for	O. H. Decumbus	385,546	July 3	319	82	44	64
Target-cutter	M. O. Nash	388,904	Sept. 4	151	40	44	1101
Tea and coffee pot. Portable	E. E. C. Thompson	388,600	Aug. 28	2151	577	44	1007
Tea. Apparatus for making extract of	R. E. Inff	389,079	Sept. 4	395	103	44	1143
Tea, coffee, milk, &c. Receptacle and heater for	C. W. Hellenbrand	383,572	May 29	2536	670	43	1031
Tea-kettle	L. P. Snyder and G. Waigle	377,124	Jan. 31	2037	533	42	420
Tea-kettle cover	J. D. Perry	394,292	Dec. 11	984	258	45	1269
Tea or coffee service	D. H. Murphy	380,048	Mar. 27	1781	476	42	1329
Teaching arithmetic. Apparatus for	I. L. Unterbrink and A. G. Vandenbroek.	390,824	Oct. 9	873	231	45	178
Teaching arithmetic. Device to aid in	J. N. Smith	389,415	Sept. 11	937	245	44	1258
Teaching fractions and percentage. Device for	L. W. Johnson	383,300	May 22	2126	560	43	948
Teaching of notation and numeration. Apparatus to facilitate the	W. E. Carr	384,959	June 26	1666	433	43	1463
Tedder	J. A. Eddy	379,454	Mar. 13	859	232	42	1135
Tedder	L. S. Heald	386,921	July 31	2369	622	44	492
Tedder and rake. Combined	W. D. Miller	379,972	Mar. 27	1662	443 444	42	1307
Tedder-fork	C. H. Paxson	377,047	Jan. 31	1913	503	42	395
Teeth. Apparatus for filing	D. R. Eden	391,304	Oct. 16	1580	419	45	318
Teeth. Device for regulating	J. J. R. Patrick	382,897	May 15	1510	396	43	821
Teeth. Die and punch for making metal crowns for	J. J. R. Patrick	381,416	Apr. 17	1678	449 450	43	344
Teeth. Filling	W. A. Dartt	386,692	July 24	1994	527	44	414
Telautograph	E. Gray	386,815	July 31	2194	578 579 580 581	44	459
Tele-thermoscope. Electric	H. W. Hardinge	382,976	May 15	1617	423	43	841
Telegraph apparatus. Municipal	J. C. Wilson	380,778	Apr. 10	714	197	43	151
Telegraph. Automatic fire	J. H. Guest	388,358	Aug. 21	1896	421 422	44	934
Telegraph-cable	W. R. Patterson	378,175	Feb. 21	1248	328 329	42	756
Telegraph-cable	W. R. Patterson	382,829	May 15	1415	371 372	43	801
Telegraph-cables. Manufacture of	W. R. Patterson	382,767	May 15	1334	351	43	784
Telegraph call-box. District	J. B. Gill	383,220	May 22	2002	525 61 62 63 64 65 66	43	926
Telegraph. Electric	D. Kunhardt	379,016	Mar. 6	227	62 63 64 65 66	42	1009
Telegraph-exchange system	R. J. Sheehy	388,922	Sept. 4	172	46	44	1105
Telegraph. Fire	J. H. Guest	388,357	Aug. 21	1801	421	44	934
Telegraph-instrument	E. M. Hamilton	379,069	Mar. 6	290	84	42	1021
Telegraph-instrument	W. S. Logue	377,110	Jan. 31	2020	529	42	415
Telegraph-key	D. R. Borland	380,310	Apr. 3	6	2	43	4
Telegraph-key	E. M. Hamilton	379,063	Mar. 6	294	85	42	1021
Telegraph-key	L. Townsend and J. E. Auten	386,729	July 24	2045	539	41	423
Telegraph key and instrument	W. A. Melbourne	378,332	Feb. 21	1478	349	42	800
Telegraph key and sounder. Combined	J. Doggett	384,350	June 12	770	200	43	1275
Telegraph key and sounder. Combined	B. Oshmen	377,862	Feb. 11	789	202	42	660
Telegraph. Mechanical	J. B. Bennett	390,642	Oct. 9	620	166	45	132
Telegraph. Municipal	J. C. Wilson	380,779	Apr. 10	718	197	43	151
Telegraph. Police, fire, and district	E. T. Gibson	378,927	Mar. 6	92	27	42	984
Telegraph. Printing	J. M. E. Baudot	388,244	Aug. 21	1614	432 433 434 435	44	898
Telegraph. Printing	P. B. Delany	378,437	Feb. 28	1649	433	42	840

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Telegraph. Printing.....	S. V. Essick.....	383,450	May 29	2343	{ 622 623	43	994
Telegraph. Printing.....	B. A. Fiske.....	389,142	Sept. 4	511	{ 131 132	44	1167
Telegraph. Printing.....	J. H. Linville.....	377,763	Feb. 14	622	{ 161 162	42	626
Telegraph. Printing.....	E. J. Mallett.....	384,320	June 12	715	{ 190 191	43	1267
Telegraph. Printing.....	E. J. Mallett.....	384,322	June 12	720	191	43	1267
Telegraph. Printing.....	D. E. Pike.....	378,107	Feb. 21	1143	298	42	738
Telegraph. Printing.....	G. V. Sheffield.....	394,302	Dec. 11	845	224	45	1242
Telegraph. Railway.....	C. W. Williams.....	377,344	Jan. 31	2355	681	42	479
Telegraph-receiver.....	W. T. Barnard.....	388,333	Aug. 21	1764	471	44	926
Telegraph-receiver.....	C. Selden.....	382,195	May 1	461	119	43	599
Telegraph-receiver.....	F. Van Rysselberghe.....	388,092	Aug. 21	1366	369	44	851
Telegraph-receiver. Printing.....	H. Mahnken.....	384,455	June 12	916	238	43	1303
Telegraph-register.....	J. G. Noyes.....	375,766	Jan. 3	61	18	42	16
Telegraph-relay.....	F. Stitzel and C. Weinedel.....	385,214	June 26	2058	528	43	1543
Telegraph-relay.....	F. Stitzel and C. Weinedel.....	389,337	Sept. 11	818	209	44	1236
Telegraph-repeater.....	J. Kölzer.....	376,661	Jan. 17	1346	{ 353 354	42	272
Telegraph-repeater.....	L. Russell.....	378,464	Feb. 28	1688	442	42	847
Telegraph-sounder.....	E. M. Hamilton.....	379,061	Mar. 6	292	84	42	1021
Telegraph-sounder.....	E. M. Hamilton.....	379,064	Mar. 6	294	85	42	1021
Telegraph systems. Device for returning signals in district.....	W. V. Lockwood.....	379,404	Mar. 13	781	211	42	1120
Telegraph-transmitter. Automatic.....	Z. P. Hotchkiss.....	386,129	July 17	1172	{ 312 313	44	244
Telegraph-wire.....	W. Hewitt.....	379,535	Mar. 13	980	264	42	1159
Telegraphs. Static compensator for.....	M. M. Davis.....	381,920	Apr. 17	1358	371	43	286
Telegraphic and other uses. Tubular metallic pole for.....	A. Mills.....	377,953	Feb. 14	928	240	42	688
Telegraphic apparatus.....	S. B. Whitehead.....	376,569	Jan. 17	1188	315	42	243
Telegraphic call for messengers, &c.....	B. Dubinski.....	389,839	Sept. 18	1568	416	44	1366
Telegraphic-printing code.....	M. W. Dewey.....	394,961	Dec. 25	1920	496	45	1469
Telegraphic recording apparatus.....	C. Cuttriss.....	386,059	July 10	1061	284	44	217
Telegraphic repeater.....	J. Kolzer.....	379,203	Mar. 6	491	138	42	1059
Telegraphy.....	C. Ader.....	377,879	Feb. 14	816	{ 208 209	42	665
Telegraphy.....	P. B. Delany.....	381,764	Apr. 24	2187	572	43	461
Telegraphy.....	P. B. Delany.....	388,481	Aug. 28	1980	532	44	974
Telegraphy.....	P. B. Delany.....	389,062	Sept. 4	373	97	44	1143
Telegraphy.....	T. A. Edison.....	377,374	Feb. 7	9	3	42	496
Telegraphy.....	S. D. Field.....	389,883	Sept. 25	1655	439	44	1409
Telegraphy.....	S. D. Field.....	392,914	Nov. 13	1080	290	45	811
Telegraphy.....	E. Gray.....	386,814	July 31	2183	{ 575 576 577	44	459
Telegraphy.....	Z. P. Hotchkiss.....	381,246	Apr. 17	1434	385	43	294
Telegraphy.....	P. F. Jamieson.....	394,697	Dec. 18	1465	382	45	1372
Telegraphy.....	F. J. Patten.....	390,802	Oct. 9	840	224	45	173
Telegraphy. Automatic.....	E. J. Mallett.....	384,324	June 12	734	192	43	1268
Telegraphy. Automatic.....	E. J. Mallett.....	384,325	June 12	728	193	43	1268
Telegraphy. Duplex.....	C. Selden.....	375,898	Jan. 3	226	62	42	48
Telegraphy. Dynamo.....	F. W. Jones.....	381,251	Apr. 17	1443	388	43	296
Telegraphy. Dynamo.....	F. W. Jones.....	381,839	Apr. 24	2312	601	43	484
Telegraphy. Electric.....	M. W. Dewey.....	394,960	Dec. 25	1918	496	45	1469
Telegraphy. Harmonic.....	F. Van Rysselberghe.....	388,091	Aug. 21	1364	369	44	850
Telegraphy. Multiple.....	C. Selden.....	378,181	Feb. 21	1256	331	42	758
Telegraphy. Printing.....	P. B. Delany.....	378,436	Feb. 28	1645	{ 432 433	42	839
Telegraphy. Railway.....	G. T. Woods.....	388,803	Aug. 28	2441	659	44	1061
Telephone.....	V. M. Berthold.....	375,862	Jan. 3	177	49, 50	42	39
Telephone.....	L. Ehrlich, B. Dubinski, and G. Rein.....	378,780	Feb. 28	2126	562	42	933
Telephone.....	W. D. House.....	380,437	Apr. 3	192	52, 53	43	39
Telephone.....	W. D. House.....	380,438	Apr. 3	193	53	43	40
Telephone.....	P. Wright.....	390,428	Oct. 2	321	84	45	68
Telephone and signaling circuit.....	J. C. Wilson.....	380,780	Apr. 10	721	197	43	152
Telephone and telegraph circuits. Plug-switch for.....	G. H. Cole.....	377,237	Jan. 31	2193	578	42	451
Telephone apparatus.....	U. H. Balsley.....	394,951	Dec. 25	1898	492	45	1465
Telephone apparatus.....	J. B. Ker and J. Crawford.....	393,243	Nov. 20	1553	407	45	912
Telephone call-bell system.....	F. E. Fisher.....	383,563	May 29	2528	{ 666 667	43	1029
Telephone call-boxes. Test-circuit for.....	C. E. Scribner.....	383,017	May 15	1696	441	43	856
Telephone central-station apparatus.....	T. N. Vail and J. A. Seely.....	385,974	July 10	943	251	44	192
Telephone central-station apparatus.....	T. N. Vail and J. A. Seely.....	385,976	July 10	946	{ 251 252	44	193
Telephone central-station apparatus.....	T. N. Vail and J. A. Seely.....	385,977	July 10	950	{ 252 253	44	194
Telephone central-station apparatus.....	T. N. Vail and J. A. Seely.....	394,230	Dec. 11	732	194	45	1920
Telephone-circuit.....	R. M. Bailey.....	392,301	Nov. 6	175	46	45	627
Telephone conductors. Insulation for mechanical.....	F. E. Clark.....	387,969	Aug. 14	1170	317	44	805
Telephone-conveyor.....	S. R. Ballard.....	383,269	May 22	2081	547	43	940
Telephone-desks. Slate for.....	E. T. Mueller.....	381,271	Apr. 17	1469	395	43	301
Telephone. Electric.....	N. Parks.....	385,956	July 10	919	244	44	188
Telephone. Electrical.....	F. D. Marston.....	380,905	Apr. 10	908	244	43	186
Telephone-exchange.....	H. H. Eldred.....	382,518	May 8	967	244	43	703
Telephone-exchange.....	W. B. Vansize.....	393,529	Nov. 27	1990	520	45	1006
Telephone-exchange central-office connection.....	E. P. Warner.....	378,030	Feb. 14	1033	270	42	709
Telephone-exchange signaling.....	T. N. Vail and J. A. Seely.....	385,978	July 10	952	253	44	195
Telephone-exchange-switch fastener.....	W. M. Goodridge.....	393,824	Dec. 4	127	35	45	1096
Telephone-exchange system.....	J. F. Casey.....	394,833	Dec. 18	1701	442	45	1420



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Telephone-exchange system.....	G. F. Durant and H. L. Bailey.....	394,914	Dec. 18	1846	478	45	1446
Telephone-exchange system.....	C. E. Scribner.....	383,013	May 15	1689	{ 439 440 }	43	854
Telephone-exchange system.....	C. E. Scribner.....	391,762	Oct. 23	2200	594	45	452
Telephone-exchanges. Key-board apparatus for.....	C. E. Scribner.....	383,018	May 15	1697	441	43	856
Telephone-exchanges. Lock-out box and shunt-circuit for.....	C. H. Haskins.....	378,679	Feb. 28	1997	528	42	909
Telephone-exchanges. Switch-board for.....	F. Blake.....	392,403	Nov. 6	339	84	45	658
Telephone-exchanges. Switch-board for.....	C. E. Scribner.....	388,791	Aug. 28	2423	{ 653 654 }	44	1058
Telephone-exchanges. Transfer-switch and circuit for.....	C. E. Scribner.....	377,441	Feb. 7	143	32	42	522
Telephone-lines. Angle-hanger for mechanical.....	R. C. M. Bowles.....	390,062	Sept. 25	1919	506	44	1463
Telephone. Magneto.....	F. H. Brown.....	376,706	Jan. 17	1415	372	42	285
Telephone. Magneto.....	F. H. Brown.....	376,707	Jan. 17	1415	372	42	285
Telephone. Mechanical.....	S. D. Brear.....	385,839	July 10	758	199	44	154
Telephone. Mechanical.....	F. E. Clarke.....	386,238	July 17	1347	355	44	277
Telephone. Mechanical.....	M. Garl.....	387,636	Aug. 14	670	174	44	708
Telephone. Mechanical.....	A. W. Hall.....	386,980	July 31	2454	645	44	509
Telephone. Mechanical.....	P. L. Mason.....	382,713	May 15	1263	331	43	770
Telephone. Mechanical.....	L. Mellett.....	392,816	Nov. 13	951	{ 243 244 }	45	764
Telephone. Mechanical.....	G. F. Shaver.....	383,324	May 22	2154	569	43	954
Telephone. Mechanical.....	G. F. Shaver.....	392,233	Nov. 6	82	30	45	610
Telephone. Mechanical.....	N. B. Stubblefield and S. C. Holcomb.....	378,183	Feb. 21	1259	332	42	758
Telephone. Mechanical.....	J. P. Sunderland.....	376,923	Jan. 24	1746	439	42	356
Telephone-receiver.....	A. W. Brown.....	378,385	Feb. 21	1500	408	42	815
Telephone-receiver.....	W. H. Collins.....	381,531	Apr. 24	1863	{ 492 493 }	43	397
Telephone-receivers. Electro-magnetic shunt for.....	T. D. Lockwood.....	393,165	Nov. 20	1437	375	45	888
Telephone-receivers. Support for.....	W. E. Thurber and J. McConnell.....	376,615	Jan. 17	1209	332	42	258
Telephone sub-station apparatus.....	T. N. Vail and J. A. Seely.....	385,975	July 10	944	251	44	193
Telephone-support.....	S. Bergmann.....	392,843	Nov. 13	991	254	45	793
Telephone-support.....	N. W. Hartwell.....	387,718	Aug. 14	797	205	44	731
Telephone-switch.....	J. R. H. Hinton.....	378,250	Feb. 21	1366	359	42	778
Telephone switch-board.....	C. C. Gould.....	392,326	Nov. 6	216	56	45	635
Telephone-switch-board cords. Circuit for double-stranded.....	C. E. Scribner.....	381,430	Apr. 17	1702	456	43	349
Telephone system.....	C. W. Brown.....	393,612	Nov. 27	2117	554	45	1032
Telephone system.....	J. F. Casey.....	394,832	Dec. 18	1697	{ 441 442 }	45	1419
Telephone system.....	J. Crawford and J. B. Ker.....	375,925	Jan. 3	267	72	42	56
Telephone system.....	R. N. Dyer.....	382,461	May 8	881	{ 224 225 }	43	685
Telephone system.....	E. P. Trayer and G. H. Kugler.....	377,788	Feb. 14	689	174	42	642
Telephone system. Hotel.....	H. V. Hayes.....	395,137	Dec. 25	2189	564	45	1521
Telephone system. Mechanical.....	A. M. Roebrough.....	389,601	Sept. 18	1223	320	44	1318
Telephone systems. Bridge for cutting in new loops in.....	G. S. Maxwell.....	394,195	Dec. 11	673	180	45	1209
Telephone-transmitter.....	J. F. Bahr.....	377,475	Feb. 7	191	45	42	532
Telephone-transmitter.....	C. W. Brown.....	386,380	July 17	1533	406	44	313
Telephone-transmitter.....	W. R. Cole.....	386,965	July 31	2430	638	44	505
Telephone-transmitter.....	W. H. Collins.....	391,356	Oct. 16	1648	436	45	331
Telephone-transmitter.....	T. A. Edison.....	378,044	Feb. 14	1051	{ 274 275 }	42	712
Telephone-transmitter.....	J. Emmuer, Jr.....	385,664	July 3	493	127	44	96
Telephone-transmitter.....	M. G. Farmer.....	380,426	Apr. 3	173	48	43	36
Telephone-transmitter.....	M. G. Farmer.....	380,427	Apr. 3	175	48	43	36
Telephone-transmitter.....	I. H. Farnham.....	380,752	Apr. 10	668	185	43	112
Telephone-transmitter.....	E. T. Gilliland.....	384,201	June 5	536	146	43	1245
Telephone-transmitter.....	J. M. Graham.....	381,234	Apr. 17	1414	381	43	291
Telephone-transmitter.....	H. V. Hayes.....	377,612	Feb. 7	393	99	42	570
Telephone-transmitter.....	J. H. Irwin. (Reissue).....	10,915	Mar. 27	2131	570	42	1401
Telephone-transmitter.....	E. H. Johnson.....	381,382	Apr. 17	1628	434	43	333
Telephones. Individual signaling apparatus for.....	E. Davis.....	391,839	Oct. 30	2333	632	45	487
Telephones. Ringing-off device for.....	A. Griffith and H. A. Burbank.....	394,173	Dec. 11	638	171	45	1203
Telephonic intercommunication. System of.....	J. A. McCoy.....	381,938	May 1	53	44	43	525
Telephonic, telegraphic, and signaling circuit.....	E. I. Bernheim.....	390,058	Sept. 25	1913	505	44	1462
Telephonic transmitter.....	S. E. Beedy.....	376,060	Jan. 10	469	136	42	101
Telephonic transmitter.....	M. G. Farmer.....	378,298	Feb. 21	1412	376	42	792
Telephonic transmitting-instrument.....	R. D'Unger.....	390,575	Oct. 2	531	139	45	107
Telephony.....	W. W. Jacques.....	392,033	Oct. 30	2409	709	45	542
Telescopes. Equatorial mounting for.....	G. N. Saegmuller.....	395,002	Dec. 25	1985	512	45	1482
Telescopic jack.....	J. O. Joyce.....	389,475	Sept. 11	1022	273	44	1274
Thermometer.....	F. J. Dibble.....	379,766	Mar. 20	1325	{ 353 354 }	42	1233
Tellurian.....	G. W. Benedict and H. V. Miller.....	390,335	Oct. 2	189	51	45	41
Tellurian.....	C. W. Hollbrook.....	378,885	Mar. 6	41	11, 12	42	974
Temperature-controller.....	R. Newton.....	381,411	Apr. 17	1673	448	43	343
Temperature-controller. Automatic.....	A. M. Butz.....	390,281	Oct. 2	113	32, 33	45	26
Temperature-regulating system.....	W. S. Johnson.....	379,201	Mar. 6	479	{ 136 137 }	42	1057
Temperature-regulator.....	L. F. Easton.....	394,563	Dec. 18	1244	{ 326 327 }	45	1330
Temperature-regulator.....	H. J. Gebhardt.....	388,034	Aug. 21	1270	345	44	833
Temperature-regulator.....	E. Gurney and C. W. Peniston.....	378,835	Feb. 28	2232	594	42	954
Temperature-regulator.....	C. W. Johnson.....	386,828	July 31	2232	587	44	466
Temperature-regulator. Automatic.....	O. Böhm.....	388,250	Aug. 21	1633	437	41	901
Temperature-regulator. Automatic.....	J. W. Brook.....	387,208	Aug. 7	19	4	44	576
Temperature-regulator. Automatic.....	J. T. Hawkins.....	378,248	Feb. 21	1364	359	42	778
Temperature-regulator. Automatic.....	W. S. Johnson.....	378,137	Feb. 21	1195	{ 311 312 }	42	747
Temperature-regulator. Automatic.....	W. S. Johnson.....	382,165	May 1	420	110	43	590
Temperature-regulator. Electric.....	L. F. Easton.....	377,021	Jan. 31	1884	496	42	390
Tennis-courts, &c. Marking.....	W. Thayer.....	391,660	Oct. 23	2061	558	45	425

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Tennis-net .....	G. E. Shepard .....	394,138	Dec. 4	589	158	45	1184
Tononing-machine .....	G. C. Berlin .....	382,791	May 15	1374	360	43	792
Tenoning-machine .....	W. H. Deane .....	387,949	Aug. 14	1141	306 307 308	44	799
Tenoning-tool .....	L. F. Parks .....	386,653	July 24	1944	514	44	405
Tenons. Forming compressed spoke .....	W. F. Morton .....	380,728	Apr. 10	640	177 178	43	137
Tenons. Machine for compressing .....	W. F. Morton .....	380,727	Apr. 10	636	175 176	43	136
Tension apparatus .....	E. C. Phillips .....	380,347	Apr. 3	62	21	43	15
Tension device. Thread .....	A. W. Mathewson .....	387,984	Aug. 14	1191	323	44	809
Tent .....	H. Gentzen .....	394,262	Dec. 11	784	208	45	1229
Tent .....	W. R. Hamilton .....	379,274	Mar. 13	593	163	42	1083
Tent .....	E. E. Mann .....	395,245	Dec. 25	2370	606 607	45	1552
Tent .....	J. A. Steele .....	386,563	July 24	1826	482	44	380
Tent. Folding .....	L. F. Ryan .....	378,977	Mar. 6	159	46	42	997
Terret. Harness .....	S. J. Woelfly .....	390,542	Oct. 2	489	127	45	98
Terrets to hames. Attaching .....	W. H. Walker .....	384,406	June 13	870	221	43	1290
Terry fabric .....	F. Leake .....	376,664	Jan. 17	1351	354	42	273
Terry fabric .....	F. Leake .....	395,242	Dec. 25	2368	606	45	1551
Testing-machine .....	A. V. Abbott .....	383,385	May 22	2240	595 596 597	43	969
Testing-machine .....	R. Bagaley .....	390,550	Oct. 2	501	131	45	101
Tether .....	B. L. Mitchell .....	379,485	Mar. 13	908	245	42	1144
Tether .....	L. J. King .....	387,423	Aug. 7	329	84	44	636
Tether .....	G. S. Sergeant .....	390,808	Oct. 9	818	226	45	174
Tether. Stock .....	W. Overaker .....	381,273	Apr. 17	1471	395	43	302
Textile fabrics. Machine for finishing and polishing .....	C. Tachon .....	376,993	Jan. 24	1835	483 484	42	373
Textile fabrics. Machine for finishing and polishing .....	C. Tachon .....	376,994	Jan. 24	1838	484 485	42	374
Textile fabrics. Machine for fixing cords to .....	E. Cornely .....	376,860	Jan. 24	1662	434	42	339
Thawing frozen loads of coal, &c. Device for .....	P. Best .....	392,844	Nov. 13	992	254	45	793
Theaters. Construction of .....	A. Palter .....	394,130	Dec. 4	576	154	45	1182
Theatrical apparatus for apparently suspending a person in mid-air .....	G. Castan .....	389,198	Sept. 11	607	155	44	1194
Theatrical appliance .....	J. Arthur .....	382,582	May 8	1074	275 276	43	725
Theatrical appliance .....	J. T. Kilham .....	383,361	May 22	2203	582 583	43	963
Thermo-electric generator .....	R. J. Gülicher .....	383,464	May 29	2370	631	43	1000
Thermometer .....	A. Bayer .....	383,691	May 29	2697	713	43	1066
Thermometer .....	E. Jürgens .....	395,279	Dec. 25	2418	620	45	1562
Thermometer. Metallic .....	T. W. Shepherd .....	382,561	May 8	1038	264	43	718
Thermometer. Oven .....	J. Stidham .....	384,876	June 19	1557	404 405	43	1432
Thermometer. Recording .....	W. F. Brewster .....	392,310	Nov. 6	186	45, 49	45	629
Thermometer. Recording .....	D. Draper .....	380,872	Apr. 10	854	231	43	176
Thermopile .....	H. Woodward .....	394,090	Dec. 4	519	139	45	1171
Thermoscopes. Circuit-closer and regulator for electro-magnetic .....	H. J. Haight .....	376,880	Jan. 24	1691	441 442 443	42	345
Thermoscopes. Receiving, transmitting, and distributing instrument for electro-magnetic .....	H. J. Haight .....	376,149	Jan. 10	603	161 162 163	42	126
Thermostat. Dust-proof .....	A. S. Kissell .....	380,394	Apr. 3	131	39	43	28
Thermostatic signal .....	H. J. Lutchner .....	389,584	Sept. 18	1192	312	44	1312
Thermotic circuit-closer .....	W. H. Soley .....	394,413	Dec. 11	1008	261	45	1273
Thill-coupling .....	S. H. Atkins .....	378,860	Mar. 6	2	1	42	967
Thill-coupling .....	O. P. Barker .....	388,521	Aug. 28	2031	547	44	984
Thill-coupling .....	F. S. Blackman .....	387,620	Aug. 14	650	168	44	704
Thill-coupling .....	G. C. Bostwick .....	385,589	July 3	384	99	41	76
Thill-coupling .....	G. Brownlee, Jr. ....	387,762	Aug. 14	853	220	41	742
Thill-coupling .....	W. Burton .....	387,281	Aug. 7	116	31	44	595
Thill-coupling .....	L. D. Carl .....	394,533	Dec. 11	1182	308	45	1304
Thill-coupling .....	S. B. Castle .....	384,233	June 12	590	160	43	1241
Thill-coupling .....	M. G. Conrad .....	383,864	June 5	21	8	43	1125
Thill-coupling .....	J. L. Culberson .....	389,793	Sept. 18	1507	397	44	1375
Thill-coupling .....	E. F. Drake and A. C. Wait .....	391,519	Oct. 23	1876	504	45	385
Thill-coupling .....	E. A. Farr .....	387,060	July 31	2557	672	44	529
Thill-coupling .....	W. B. Folsom .....	387,972	Aug. 14	1175	319	44	806
Thill-coupling .....	G. W. Ford .....	379,456	Mar. 13	861	232	42	1136
Thill coupling .....	G. C. Frisbie .....	391,701	Oct. 23	2121	513	45	436
Thill-coupling .....	H. O. Harrison .....	395,229	Dec. 25	2350	602	45	1548
Thill-coupling .....	W. H. Haskell .....	387,414	Aug. 7	314	80	44	633
Thill-coupling .....	F. Hildreth .....	390,019	Sept. 25	1848	470	44	1148
Thill-coupling .....	W. Hine .....	378,052	Feb. 14	1062	278	42	714
Thill-coupling .....	G. B. Howland and F. W. Allen .....	383,953	June 5	164	48	43	1152
Thill-coupling .....	C. Huclin .....	377,716	Feb. 7	547	140	42	598
Thill-coupling .....	G. W. Hyatt and W. Dick .....	378,840	Feb. 28	2240	597	42	956
Thill-coupling .....	T. G. Inghram .....	379,578	Mar. 20	1058	282	42	1180
Thill-coupling .....	M. N. Lechr .....	391,754	Oct. 23	2189	500	45	450
Thill-coupling .....	O. M. Martz and J. Esselburn .....	382,177	May 1	439	114	43	594
Thill-coupling .....	M. F. McIntyre .....	385,867	July 10	802	212	44	164
Thill-coupling .....	L. Miller and M. L. Wright .....	376,606	Jan. 17	1346	327	42	254
Thill-coupling .....	L. Miller and M. L. Wright .....	388,144	Aug. 21	1186	336	44	871
Thill-coupling .....	T. H. B. Millsap .....	379,591	Mar. 10	1073	285	42	1183
Thill-coupling .....	L. B. Moats .....	380,452	Apr. 3	216	58	43	44
Thill-coupling .....	A. P. Moltzen .....	381,267	Apr. 17	1464	373	43	360
Thill-coupling .....	D. Murray .....	377,861	Feb. 14	789	291	42	600
Thill-coupling .....	J. S. Pardee .....	382,828	May 15	1114	371	43	601
Thill-coupling .....	W. H. Pardee .....	394,290	Dec. 11	827	219	45	1229
Thill-coupling .....	W. H. Pardee .....	394,291	Dec. 11	828	220	45	1230

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Thill-coupling	J. W. Pendleton	378,262	Feb. 21	1387	363	42	781
Thill-coupling	A. B. Perine	382,381	May 8	762	193	43	664
Thill-coupling	J. Peters	390,188	Sept. 25	2107	562	44	1501
Thill-coupling	J. S. Pogue	393,720	Nov. 27	2270	595	45	1062
Thill-coupling	A. Poulson	387,443	Aug. 7	368	95	44	645
Thill-coupling	H. M. Powers	387,254	Aug. 7	83	20	44	558
Thill-coupling	P. A. Reidy	385,374	July 3	52	15	41	12
Thill-coupling	L. Rinninsland	377,814	Feb. 14	731	185	42	649
Thill-coupling	W. T. Ross	390,256	Oct. 2	84	21	45	20
Thill-coupling	T. A. Shinn	382,562	May 8	1040	265	41	718
Thill-coupling	D. W. Smith	386,222	July 17	1321	349	44	272
Thill-coupling	A. J. Spicer	386,276	July 17	1400	369	44	287
Thill-coupling	W. M. Spicer	387,460	Aug. 7	386	100	44	649
Thill-coupling	C. Weir	395,021	Dec. 25	2008	518	45	1486
Thill-coupling-pin	J. E. and J. B. Vail	381,659	Apr. 24	2042	531	43	433
Thill-coupling spring	B. McGovern	393,019	Nov. 20	1243	322	45	550
Thill-couplings. Anti-rattler for	C. and C. L. Lee	391,166	Oct. 16	1389	370	45	282
Thill-couplings. Combined anti-rattler and nut-lock	S. J. Wood	392,249	Nov. 6	106	27	45	615
Thill-holder	H. B. Butts	390,566	Oct. 2	522	137	45	105
Thill-holder	E. H. Turner	392,835	Nov. 13	981	251	45	790
Thill-support	A. Angus	377,922	Feb. 14	880	225	42	678
Thill-support	A. Angus	390,832	Oct. 9	887	235	45	181
Thills. Safety-snap for carriage	H. H. Brown	376,469	Jan. 17	1053	276	42	217
Thills. Vehicle	G. A. Hynds	385,587	July 24	1853	490	44	386
Thrasher and steam-engine. Combined	E. Howland	385,627	July 3	445	115	41	87
Thrasher. Traveling	C. Grattan and L. U. Shippee	389,884	Sept. 25	1659	439	44	1110
Thrasher. Traveling	R. E. Moore	380,453	Apr. 3	216	59, 60	43	41
Thrasher. Traveling	W. H. Murray and G. Williams	392,057	Oct. 30	2651	721	45	550
Thrasher. Traveling	C. K. Myers	390,342	Apr. 3	50	18	43	12
Thrashers. Elevator and weighing attachment for	C. J. Hartley	377,358	Jan. 31	2377	687	42	483
Thrashers. Grain-separator for	J. T. Fenton	378,483	Aug. 28	1984	532	41	975
Thrashing-machine	W. Blachley	386,292	July 17	1417	374	44	290
Thrashing-machine	W. H. and J. Butterworth, Jr	379,762	Mar. 20	1319	351	42	1232
Thrashing-machine	D. J. and J. F. Devane	387,627	Aug. 14	658	170	44	705
Thrashing-machine	J. Galland	391,139	Oct. 16	1352	360	45	275
Thrashing-machine	J. A. Rouse	377,214	Jan. 31	2156	569	42	444
Thrashing-machine	A. J. Wise	379,191	Mar. 6	464	131	42	1055
Thrashing-machine and binder. Combined	R. D. Norton	393,782	Dec. 4	68	19, 20	45	1085
Thrashing-machine teeth. Die for making	H. T. Russell	379,730	Mar. 20	1274	310	42	1224
Thrashing-machines. Band-cutter and feeder for	J. H. Spurgin	388,595	Aug. 28	2142	571	44	1005
Thrashing-machines. Straw-carrier for	P. Enzenauer	392,321	Nov. 6	205	53, 54	45	633
Thread cases. Drawer for spool	F. I. Bowles	390,174	Mar. 27	1954	521	42	1364
Thread-holder for spools	E. G. Cone	376,858	Jan. 21	1669	433	42	339
Thread-holder for spools	S. B. and C. B. Pratt	394,996	Dec. 25	1978	510	45	1470
Thread or cord. Machine for making sewing	H. Bormann	392,144	Oct. 30	2796	759	45	579
Thread or cord. Sewing	J. H. Briggs	387,207	Aug. 7	17	3	44	575
Thread-unwinder	T. Handley	385,857	July 10	781	208	41	160
Three-way safety-switch	W. F. D. Pascoe and J. W. Raub	378,519	Feb. 28	1760	465	42	863
Three-way split switch	J. D. Bailey	384,304	June 12	695	185	43	1263
Threshold and weather strip. Combined	G. B. Williamson	388,330	Aug. 21	1760	470	44	926
Threshold or door-sill	L. M. Pratt and J. M. Walker	386,081	July 10	1094	291	41	223
Throat-latch fastener	F. O. Hopson	381,245	Apr. 17	1433	255	43	294
Thrust-block	S. N. Smith	388,227	Aug. 21	1591	424	44	892
Thumb-insertion machine	S. Arnold	392,581	Nov. 13	593	149	45	715
Ticket-clasp	J. L. Shay	382,274	May 1	580	147	43	620
Ticket-holder	D. P. Crofut	383,797	May 29	2878	757	43	1100
Ticket-holder	H. Penn	384,684	June 19	1261	331	43	1377
Ticket-holder	P. E. McDonald	388,895	Sept. 4	132	36	44	1097
Ticket-holder	M. H. Straus	377,176	Jan. 31	2098	553	42	434
Ticket-holder	W. J. Wharton	386,750	July 24	2046	539	44	423
Ticket. Passenger	V. H. Shepard	384,291	June 12	674	180	43	1259
Ticket rack. Coupon	H. Binckley	384,305	June 12	696	185	43	1263
Ticket. Railway	R. I. Hampton	380,566	Apr. 3	394	112	43	81
Ticket. Railway	H. L. Stewart	393,793	Dec. 4	83	23	45	1089
Tickets, &c. Holder for	E. Mögel	382,823	May 15	1409	370	43	890
Tickler. Office	F. B. Smith	377,335	Jan. 31	2339	678	42	476
Tide-water elevator or system of utilizing the rise and fall of the tides.	E. P. Lorch	378,452	Feb. 28	1671	438	42	844
Tidy-fastener	C. S. Snedden	384,293	June 12	676	181	43	1259
Tidy-holder	W. S. Harris	393,703	Nov. 27	2250	590	45	1058
Tie.							
See Bale-tie.	Railway-gate tie.						
Horse-tie.	Railway metal tie.						
Horse-tail tie.	Railway-rail tie.						
Railway-tie.	Umbrella-tie.						
Railway cross-tie.	Wall-tie.						
Tie, chair, and fish-plate. Combined	D. Harrington and M. A. Keane	381,238	Apr. 17	1424	383	43	292
Tie	A. Diedrich	385,343	July 3	9	3	44	4
Tile and roofing-plate. Illuminating	J. Jacobs	385,270	June 26	2154	549	43	1563
Tile ceiling	J. H. Bright	386,376	July 17	1530	405	44	312
Tile. Ceiling	J. H. Bright	386,378	July 17	1531	406	44	313
Tile. Culvert or drain	C. P. Mabis	393,849	Dec. 4	155	32	45	1101
Tile. Drain	H. H. Baltzley	385,292	June 26	2192	560	43	1569
Tile for columns	J. H. Bright	386,377	July 17	1531	405	44	313
Tile. Glass	W. Buttlar	394,910	Dec. 18	1841	477	45	1445
Tile. Illuminating	J. Jacobs	377,239	Feb. 11	909	231	42	684

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Tile. Illuminating.....	J. Jacobs.....	385,268	June 26	2152	548	43	1562
Tile. Illuminating.....	J. Jacobs.....	385,269	June 26	2153	548 549	43	1562
Tile. Illuminating.....	T. Sharts.....	378,558	Feb. 28	1822	480	42	875
Tile. Illuminating.....	T. Sharts.....	378,559	Feb. 28	1823	481	42	875
Tile-machine.....	E. Puchta and R. Hoffmann.....	383,591	May 29	2559	677	43	1036
Tile-machines. Lubricating-carriage for.....	G. Livingston and A. A. Spenny.....	379,795	Mar. 20	1375	365	42	1244
Tile or paving-block. Interlocking.....	D. O. Loy.....	392,277	Nov. 6	146	36 37 38	45	621
Tile. Paving.....	F. Brannigan.....	378,825	Feb. 28	2217	590	42	951
Tile-press.....	G. A. Stanbery.....	383,926	Sept. 4	178	17, 48	44	1106
Tile, side wall, &c. Illuminating.....	J. Jacobs.....	385,271	June 26	2155	550	43	1563
Tiles. Core for making hollow.....	P. R. Greene.....	380,030	Mar. 27	1755	470	42	1324
Tiles. Display-rack for.....	D. C. Meehan.....	379,589	Mar. 20	1071	285	42	1183
Tiles. Hanger for ceiling.....	J. H. Bright.....	386,379	July 17	1532	406	44	313
Tilling ground. Apparatus for.....	E. R. Whitney.....	385,984	July 10	960	255	44	196
Tilling-machine. Steam.....	P. Everitt and T. Cooper.....	389,141	Sept. 4	509	130 131 133 134	41	1167
Tilting-chair.....	J. W. Kenna.....	382,235	May 1	520	133	43	669
Timber, &c. Composition for preserving.....	C. Taylor, R. I. Murchison, and G. Sharpe.....	391,209	Oct. 16	1417	.....	45	295
Timber-hangers. Machine for making.....	C. H. Williams.....	383,265	May 22	2075	545	43	939
Timbers. Preserving submerged.....	H. L. Ricks.....	380,820	Apr. 10	776	212	43	163
Time-alarm.....	G. Bapst and L. Falize, Fils.....	384,412	June 12	1820	223 224	43	1292
Time-ball.....	C. Müller.....	381,996	June 26	1721	447	43	1475
Time-detector. Watchman's.....	G. B. Fessenden.....	381,992	May 1	154	39	43	543
Time-detector. Watchman's.....	G. B. Fessenden.....	381,993	May 1	156	39, 40	43	543
Time-lock. Electro-magnetic.....	C. J. Kintner.....	384,856	June 19	1524	396 397	43	1427
Time-piece.....	C. Bickford.....	381,737	June 19	1341	350	43	1392
Time-piece escapements. Banking device for.....	L. Achy.....	384,670	June 19	1242	327	43	1374
Time-piece holder.....	J. H. Hodgetts.....	391,531	Oct. 23	1891	508	45	388
Time-piece. Self-setting.....	E. Müller.....	392,056	Oct. 30	2648	720	45	550
Time-piece. Self-setting.....	A. Rosenbaum.....	389,111	Sept. 4	469	121	44	1160
Time-pieces. Machine for regulating.....	W. B. Farrar.....	379,511	Mar. 13	946	256	42	1152
Time-pieces. Seconds-setting mechanism for.....	F. Terstegen.....	379,833	Mar. 20	1442	383	42	1256
Time-pieces. Winding-indicator for.....	A. M. Bachrach.....	390,333	Oct. 2	186	50	45	40
Time-recorder.....	W. L. Bundy.....	393,205	Nov. 20	1500	392 393 398 399	45	901
Time-recorder. Electric.....	A. Wirsching.....	389,626	Sept. 18	1251	328 329	44	1324
Time-recorder. Employé's.....	C. E. Van Voorhis.....	377,341	Jan. 31	2349	680	42	478
Time-recorder. Watchman's electric.....	G. E. Eulen.....	386,767	July 24	2098	551 552	44	432
Time-recorder. Workman's electric.....	W. K. Bassford and E. B. Maynard.....	391,049	Dec. 4	460	123 124	45	1159
Time-register for railway-stations.....	B. F. Fiecland.....	390,222	Oct. 2	43	11	45	11
Time, temperature, and burglar alarm and call-bell. Electric.....	H. P. F. Jensen, B. W. Webb, and J. Jensen.....	378,202	Feb. 21	1285	340	42	765
Time worked by employes and automatically computing their wages. Device for registering and recording the.....	F. L. Fuller.....	379,865	Mar. 20	1507	397	42	1268
Timing horses. Mechanism for.....	H. A. Leonard and G. Kettlewell.....	376,602	Jan. 17	1240	326	42	253
Tin can.....	F. J. Marnion.....	390,791	Oct. 9	836	220	45	170
Tin. Device for feeding sheets of.....	C. W. Sleeper.....	393,682	Nov. 20	1324	345	45	865
Tin. Machine for cutting blanks from.....	W. Hipperling.....	379,893	Mar. 20	1550	408	42	1275
Tin orterne plates. Apparatus for dipping or cleaning.....	H. W. Buddicom.....	392,101	Oct. 30	2732	742 743	45	566
Tinning copper sheets. Machine for.....	D. Evans.....	383,116	May 22	1863	486	43	898
Tinning zinc and other metals. Table for.....	J. K. Crowley.....	380,248	Mar. 27	2056	550	42	1386
Tinsmith's beading-machine.....	A. Shepard.....	377,470	Feb. 7	185	43	42	531
Tinting fabrics.....	V. G. Bloede.....	394,446	Dec. 11	1052	.....	45	1281
Tinting or finishing cotton fabrics.....	V. G. Bloede and J. Bancroft.....	394,448	Dec. 11	1055	.....	45	1281
Tire-bender.....	J. F. Bender.....	387,848	Aug. 14	973	253	44	767
Tire-bolt holder.....	T. B. Casey.....	382,029	May 1	224	59	43	555
Tire-bolter and cutter.....	W. A. Johnson.....	388,778	Aug. 28	2408	649	44	1054
Tire-beater.....	J. O. Sperbeck.....	383,195	May 22	1963	514	43	918
Tire setting and cooling machine.....	J. H. Williams.....	385,538	July 3	310	79, 80	44	63
Tire-shrinker.....	J. D. McGee.....	381,939	May 1	58	15	43	526
Tire shrinker and expander.....	H. G. Cady.....	384,822	June 19	1472	385	43	1417
Tire-tightener.....	M. Chase.....	379,561	Mar. 20	1023	273	42	1174
Tire-tightener.....	F. S. Dimon.....	382,955	May 15	1591	415	43	836
Tire-tightener.....	G. D. Gaddis.....	379,950	Mar. 27	1632	435	42	1302
Tire-tightener.....	S. D. Tomlinson.....	376,491	Jan. 17	1088	286	42	224
Tire-tightener.....	R. N. Van Slyke.....	380,538	Apr. 3	350	100	43	72
Tire-upsetter.....	W. M. Palmer.....	384,778	June 19	1399	365 366	43	1405
Tire-upsetting machine.....	R. Rutter.....	381,085	Apr. 10	1201	322	43	241
Tire. Wheel.....	J. Evans.....	391,037	Oct. 16	1211	321	45	249
Tires. Apparatus for heating wagon.....	J. F. Walker.....	385,584	July 3	379	98	44	75
Tires. Device for heating vehicle.....	S. S. Milledge.....	393,022	Nov. 20	1247	323	45	850
Tires. Making.....	J. Munton.....	381,505	Apr. 17	1821	482	43	372
Tiring wheels.....	T. J. Reid.....	393,030	Nov. 20	1259	326	45	853
Toasting or broiling implement.....	D. P. McHarg.....	377,398	Feb. 7	46	13	42	504
Toasting-pan.....	W. T. Van Dorn.....	386,170	July 17	1228	328	41	256
Tobacco and cigar cutter. Combined.....	G. H. Earnest and A. Hibschan.....	393,363	Nov. 27	1736	459	45	956
Tobacco. Apparatus for treating leaf.....	G. W. Brooks.....	385,638	June 26	1802	473	43	1491
Tobacco-barns. Drying attachment for.....	J. M. Snidow.....	383,778	May 29	2850	750	43	1094
Tobacco-box.....	J. G. Pierson.....	387,694	Aug. 14	758	193	41	724
Tobacco-box.....	C. A. Reynolds.....	385,726	July 10	588	153	44	122

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Tobacco-coloring apparatus.	J. K. Hardwicke and J. J. Redmon.	382,084	May 1	316	83	43	571
Tobacco-curing apparatus.	E. R. Bardeen	393,532	Nov. 27	1999	523	45	1008
Tobacco cutter. Plug.	A. U. Drayer and H. C. Boykin	389,877	Sept. 25	1649	436	44	1108
Tobacco. Device for curing.	E. A. Boughton	379,094	Mar. 6	315	98	42	1030
Tobacco. Device for securing cut.	F. Grill	380,256	Mar. 27	2064	552	42	1388
Tobacco-drier.	D. B. Cooke	391,690	Oct. 23	2099	569	45	432
Tobacco-frame.	J. F. Drury	388,646	Aug. 28	2213	595	41	1018
Tobacco-granulating machine.	W. W. Smith	382,565	May 8	1044	266	43	719
Tobacco-hanger.	T. Y. and L. J. Allen	386,228	July 17	1330	351	44	274
Tobacco-hanger.	W. J. Sculthorp	378,727	Feb. 28	2058	543	42	921
Tobacco. Machine for pressing leaves of.	W. R. Lassiter	390,238	Oct. 2	62	17	45	16
Tobacco moistener.	W. I. Tuttle	392,575	Nov. 6	581	146	45	706
Tobacco moistening device.	J. McPherson	387,095	July 31	2611	666	41	538
Tobacco-pipe.	C. L. Clarke	390,453	Oct. 2	356	93	45	71
Tobacco-pipe.	H. Cullabine	377,241	Jan. 31	2200	580	42	452
Tobacco-pipe.	C. E. Darling and H. Free	384,681	June 19	1258	330	43	1377
Tobacco-pipe.	S. Hirsch	389,889	Sept. 25	1671	441	41	1412
Tobacco-pipe.	J. F. Mallinckrodt.	379,585	Mar. 20	1064	283	42	1182
Tobacco-pipe.	F. Roessing	384,392	June 12	830	216	43	1286
Tobacco-pipe.	H. J. Sörensen	388,081	Aug. 21	1352	365	44	818
Tobacco-pipe.	T. B. Whitledge, G. W. Kenner, and M. Rueckert.	388,235	Aug. 21	1663	429	41	895
Tobacco-pipe bowl.	W. S. Blake	387,041	July 31	2532	666	41	521
Tobacco-pipe bowl.	W. S. Blake	387,135	July 31	2687	704	44	550
Tobacco-pipes. Cartridge for.	G. H. Poabody	380,590	Apr. 3	429	121	43	88
Tobacco-pouches. Manufacture of.	J. G. Ingram	385,628	July 3	446	115	41	87
Tobacco-receptacle.	P. Lorillard, Jr.	381,801	Apr. 24	2239	586	43	471
Tobacco-refining vat.	L. Grathwol	379,391	Mar. 13	763	206	42	1116
Tobacco-stemming apparatus.	J. T. Drummond	384,566	June 12	1087	284	43	1335
Tobacco waste. Utilizing.	J. T. Drummond.	384,565	June 12	1086	283	43	1335
Toboggan.	C. H. Emerson and W. H. Wetmore.	380,875	Apr. 10	860	232	42	157
Toboggan.	J. Pusey	386,413	July 17	1596	419	44	329
Toboggan.	J. Pusey	386,414	July 17	1598	420	44	329
Toboggan.	C. H. Waite and G. D. Brown	390,632	Oct. 2	599	159	45	126
Toboggan or coasting hill. Artificial.	J. Pusey	387,733	Aug. 14	815	211	44	735
Toboggan-slide.	C. N. Grant	386,123	July 17	1164	310	41	242
Toe-weight.	C. W. Crannell	389,204	Sept. 11	615	157	41	1195
Toilet-cabinet. Nurse's.	F. Holt	380,038	Mar. 27	1763	473	42	1326
Toilet-cabinet or other wooden structure.	H. Bogardus.	391,013	Oct. 16	1166	311	45	240
Toilet-case.	J. A. McClelland	390,689	Sept. 25	1963	522	41	1472
Toilet-case and triplicate mirror.	P. Wiederer	393,679	Nov. 27	2217	581	45	1052
Toilet-rack.	M. C. Sterling	386,939	July 31	2395	630	41	497
Toll-register.	J. K. Stewart	384,938	June 19	1633	424	43	1448
Tongs.	A. Biber	383,855	June 5	10	3	43	1122
Tongs. Culinary spring.	G. Brinton	385,498	July 3	250	64	41	50
Tongs. Grapnel.	T. J. S. Davis	390,758	Oct. 9	781	208	45	161
Tongue for vehicles. Adjustable.	J. Seefield	393,399	Nov. 27	1785	472	45	965
Tongue-support.	J. M. Barr	394,752	Dec. 18	1554	406	45	1391
Tongue-support.	C. R. Canterbury	391,780	Oct. 30	2235	607	45	468
Tongue-support.	L. W., Jr., and R. E. L. Leavell	383,183	May 22	1948	511	43	915
Tongue-support.	T. G. Mandt	390,873	Oct. 9	938	247	45	190
Tongue-support.	L. J. Manor	380,503	Apr. 3	293	86	43	60
Tongue-support.	W. D. Napier	394,332	Dec. 18	1871	484	45	1451
Tongue-support.	D. Ward	376,999	Jan. 24	1847	488	42	376
Tongue-support.	F. G. Winnek	378,070	Feb. 14	1085	285	42	719
Tongue-support.	J. R. Young	379,525	Mar. 13	966	260	42	1156
Tongue support. Vehicle.	G. F. Litchard	376,667	Jan. 17	1354	355	42	273
Tongue support. Vehicle.	G. F. Seiser, W. T. Hill, and W. L. Nuttall.	392,640	Nov. 13	684	171	45	732
Tongue. Wagon.	T. G. Mandt	390,871	Oct. 9	935	247	45	189
Tonic. Alterative.	W. Whitney	378,156	Feb. 21	1223	42	751	
Tonic compound.	C. W. Stowe	377,842	Feb. 11	768	42	656	
Tool. Combination.	J. Angus	376,058	Jan. 10	466	125	42	161
Tool. Combination.	J. Brouse	377,142	Jan. 31	2055	538	42	424
Tool. Combination.	E. P. Crosby	389,549	Sept. 18	1137	298	44	1302
Tool. Combination.	F. W. Ehlmann	379,773	Mar. 20	1336	357	42	1236
Tool. Combination.	J. D. Marsters	382,821	May 15	1407	369	43	799
Tool. Combination.	M. F. McCray and J. E. Norton	382,181	May 1	443	115	43	595
Tool. Combination.	G. W. Ribble	341,721	Apr. 24	2137	559	43	452
Tool. Combination.	R. T. Torkelson	391,211	Oct. 16	1419	387	45	295
Tool. Combination pocket.	W. R. Buzzell	386,055	July 10	1056	282	41	215
Tool. Combined.	S. B. Freethy	393,227	Nov. 20	1530	401	45	907
Tool. Combined or convertible.	E. L. Barber	393,288	Nov. 20	1625	426	45	926
Tool. Compound.	J. Benson	390,433	Oct. 2	329	86	45	70
Tool. Compound.	R. W. Dieffendorf	389,553	Sept. 18	1144	300	44	1304
Tool. Cutting.	J. C. Manning	395,285	Dec. 25	2424	621	45	1563
Tool-driver. Rotary.	G. F. Shaver	377,783	Feb. 14	683	172	42	611
Tool-handle.	J. Bell	379,439	Mar. 13	833	225	42	1131
Tool-handle.	W. Millsbaugh	376,413	Jan. 10	966	252	42	193
Tool-handle.	O. Peck	379,877	Mar. 20	1527	403	42	1272
Tool-handle.	C. M. Powers	377,688	Feb. 7	510	131	42	591
Tool-handle.	A. C. Wells	375,786	Jan. 3	88	26	42	22
Tool-handle.	C. L. Young	377,003	Jan. 21	1854	489	42	377
Tool-handles. Screw-key fastening for.	G. Hoffmann	377,257	Jan. 31	2221	577	42	456
Tool-holder.	J. T. Pedersen	390,516	Oct. 2	451	117	45	91
Tool-holder and tools for the same.	J. T. Pedersen	386,262	July 17	1381	364	41	283
Tool-holder and tools for the same.	J. T. Pedersen	386,263	July 17	1382	364	41	283
Tool holder. Combination.	P. A. Gerry	393,698	Nov. 27	2243	588	45	1457
Tool-holder. Electro-therapeutic.	A. H. Bacon	394,807	Dec. 18	1651	433	45	1411
Tool-holding box.	G. H. Bartlett and O. Peck	388,334	Aug. 21	1765	471	44	926
Tool-operating mechanism.	L. P. Lawrence	377,858	Feb. 11	785	200	42	659

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Tool-post ring	W. S. Cobb	385,845	July 10	765	201	44	156
Tool rack. Agricultural	F. A. Herrick	383,527	May 20	2477	654	43	1019
Tooth. Artificial	A. W. Day and L. A. Rogers	388,269	Aug. 21	1668	446	41	909
Tooth. Artificial	E. A. Floyd	384,836	June 1	1497	389	43	1422
Tooth. Artificial	D. Genese	377,248	Jan. 31	2210	583	42	454
Tooth. Artificial	J. W. Moffitt	378,015	Feb. 1	1014	264	42	705
Tooth. Artificial	J. B. Parker	383,760	May 2	2813	741	43	1088
Tooth. Artificial	J. J. R. Patrick	380,512	Apr. 3	311	90	43	63
Tooth. Artificial	T. S. Waters	377,970	Feb. 1	951	248	42	693
Tooth-crown. Artificial	C. E. Diehl	387,774	Aug. 11	867	224	41	745
Tooth-crown. Artificial	C. S. Hurlbut	377,855	Feb. 1	781	200	42	659
Tooth-crown. Artificial	J. E. Low	376,603	Jan. 1	1241	326	42	253
Tooth-crown. Artificial	C. M. Richmond	392,226	Nov. 6	73	18	45	608
Tooth-pick	R. A. Bacon	380,739	Apr. 1	654	181	43	140
Tooth-picks. Machine for cutting	E. A. Harris	375,812	Jan. 6	121	35	42	28
Tooth-regulator	W. S. How	385,117	June 28	1919	490	43	1515
Tooth. Spring	P. F. Wells. (Reissue)	10,972	Dec. 2	606	162	45	1187
Toothed wheel	J. T. Redington	393,518	Nov. 2	1977	516	43	1004
Top-prop	L. Anderson	394,549	Dec. 1	1214	317	45	1325
Top. Spinning	E. W. Dickerman	387,553	July 31	2707	710	44	554
Topographical measurements. Machine for taking and recording	J. W. Snapp	385,837	July 1	735	192	41	151
Topsails. Rig and gear for gaff	C. A. Post	381,278	Apr. 1	1477	397	43	303
Torch	R. Whitaker	391,669	Oct. 2	2072	561	45	427
Torch-yoke	H. J. Vogel	391,665	Oct. 2	2067	559	45	426
Torpedo. Auto-mobile	M. E. Hall	387,353	Aug. 7	227	59, 60	44	615
Torpedo-boat. Submarine	H. P. Griswold	388,862	Sept. 4	83	22, 23	44	1089
Torpedo-boats. Electric steering apparatus for	J. O'Kelly and B. A. Collins	388,300	Aug. 21	1713	457	44	918
Torpedo-machines. Tray for	J. J. Detwiller	385,795	July 10	690	180	44	143
Torpedo-nets and means for attaching and working them. Manufacture of	W. M. Bullivant	379,854	Mar. 20	1481	390	42	1262
Torpedo-placer	J. Wilhelm	376,020	Jan. 3	409	108	42	81
Torpedo-placer. Railway	S. W. Doane	376,078	Jan. 10	494	134	42	106
Torpedo-signal holder	R. J. Patton	381,277	Apr. 17	1476	396	43	303
Torpedo-signal placer	L. T. Mann	389,233	Sept. 11	664	170	44	1206
Torpedoes. Means for operating marine	J. O'Kelly and B. A. Collins	388,299	Aug. 21	1709	456	44	917
Torpedoes on railway-tracks. Apparatus for placing	J. R. H. Hinton	388,199	Aug. 21	1557	414	44	885
Tow-boat	A. McDongall	393,997	Dec. 4	382	103	45	1114
Towel	F. Leake	384,046	June 5	305	86	43	1179
Towel rack and receptacle. Combined	D. W. Kendall	390,681	Oct. 9	673	179	45	142
Towing canal-boats. Apparatus for	D. W. Kingsley	378,000	Feb. 14	1006	262	42	703
Towing-machine	T. J. Shaw and J. M. Spiegle	383,917	June 5	167	31	43	1141
Toy	F. W. Carpenter	389,364	Sept. 11	860	232	44	1245
Toy	C. M. Crandall	388,442	May 29	2334	620	43	992
Toy	I. D. Law	381,391	Apr. 17	1642	437	43	336
Toy	O. B. Rooker	387,542	Aug. 7	521	135	44	672
Toy	P. Weber	382,744	May 15	1306	343	43	779
Toy. Automatic sand-mill	P. B. Sheldon	379,132	Mar. 6	390	111	42	1039
Toy bedstead	C. B. Darley	390,008	Sept. 25	1832	485	44	1445
Toy cap-detonator	C. Oakford	392,820	Nov. 13	957	246	45	786
Toy cars, carriages, &c. Axle for	J. Fallows	395,219	Dec. 25	2337	598	45	1546
Toy cartridge-exploder	J. B. McHarg	377,399	Feb. 7	47	13	42	505
Toy frog. Mechanical	S. E. Clark	375,867	Jan. 3	185	51	42	40
Toy hoop	H. D. Gardy	385,704	July 10	537	145	44	116
Toy house	M. E. Haldemann	390,296	Oct. 2	132	38	45	30
Toy locomotive	J. Garlick	392,324	Nov. 6	213	55, 56	45	635
Toy locomotive	J. S. Wilkins, Jr.	384,658	June 19	1220	322	43	1369
Toy marble-shooter	R. N. Stockton	379,913	Mar. 20	1578	415	42	1280
Toy. Mechanical	J. W. Hale	381,922	May 1	32	9	43	520
Toy. Mechanical	W. F. Hopkins	387,303	Aug. 7	131	43	41	602
Toy money-bank	T. F. Ungemach	389,178	Sept. 4	576	146	44	1178
Toy money-box	C. A. Bailey	385,225	June 26	2072	531	43	1546
Toy money-box	J. H. Bowen	376,628	Jan. 17	1295	341	42	263
Toy. Musical	C. D. Rogers	376,611	Jan. 17	1260	330	42	256
Toy parachute	W. J. Kuntzsch	384,533	June 12	1039	271	43	1326
Toy picture	C. Heller	390,966	Oct. 9	1079	286	45	217
Toy pistol	E. R. Ives	377,698	Feb. 14	724	183	42	648
Toy puzzle and advertising device. Alphabetical	J. F. Jones	390,784	Oct. 9	817	217	45	168
Toy race-track	W. N. McManus	391,262	Oct. 16	1519	403	45	307
Toy registering savings-bank	E. Headley	379,534	Mar. 13	978	263	42	1158
Toy riding-stick	S. E. Clark	385,910	July 10	870	230	44	178
Toy. Rotary	R. Teichmann	384,403	June 12	844	220	43	1290
Toy. Running	P. H. Seery	389,325	Sept. 11	803	205	44	1233
Toy savings-bank	G. S. Fredell	377,259	Jan. 31	2224	588	42	456
Toy savings-bank. Mechanical	A. C. Rex	379,607	Mar. 20	1098	292	42	1188
Toy spring-gun. Top-spinning	O. P. Briggs	387,761	Aug. 14	850	220	44	742
Toy vehicles. Axle for	L. Frank	385,452	July 3	179	48	44	36
Toy. Walking	G. T. Pallis	376,588	Jan. 17	1218	321	42	249
Toy. Walking	M. Laskey	390,483	Oct. 2	401	102	45	82
Toy wind-wheel	T. B. De Forest	390,655	Oct. 9	637	169	45	135
Trace attachment	W. J. Howard	382,002	May 1	177	46	43	546
Trace-attachment clip	C. J. King	378,689	Feb. 28	2011	531	42	912
Trace-bearer	J. H. Brennan	392,309	Nov. 6	186	48	45	629
Trace-carrier	E. R. Crockett	382,216	May 1	492	127	43	604
Trace-carrier	F. M. Friegel	393,330	Nov. 20	1616	445	45	938
Trace-carrier	H. P. Johnson	389,890	Sept. 25	1672	441	44	1412
Trace-carrier	O. I. Langworthy	382,709	May 15	1259	329	43	769
Trace-detacher	J. D. Blakeman	377,982	Feb. 14	967	252	42	696
Trace-eye protector	S. M. Hartman	383,526	May 29	2476	654	43	1019



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Trace-fastener	C. J. Bessesen	390,746	Oct. 9	767	204	45	153
Trace-fastener	C. H. McDonald	388,429	Aug. 28	1909	540	44	959
Trace-fastening	W. N. Bailey	380,160	Mar. 27	1934	546	42	1360
Trace-fastening	J. S. Clark	384,334	Apr. 17	1551	448	43	319
Trace-fastening	J. H. Cory	377,538	Feb. 14	584	150	42	620
Trace-fastening	C. S. Nowson and L. Oxley	387,884	Apr. 24	2384	620	43	498
Trace-holder. Spring.	W. B. Silvers	377,915	Feb. 14	869	223	42	677
Trace-supporter	A. Anderson	380,471	Apr. 3	242	66	43	49
Traces and bands. Waterproofing	S. Ogden	340,248	Oct. 2	77	22	45	19
Track and lifting jack	T. J. Reamy	394,395	Dec. 11	987	259	45	1270
Track-buffer	R. P. Garsed	380,680	Apr. 10	569	157	43	123
Track-clearer	J. B. Hoggland	381,072	Apr. 10	1174	312	43	236
Track-crossing. Rotary	F. J. Hoyt	388,135	Aug. 21	1457	391	44	867
Track-hanger	L. Terry	386,564	July 24	1827	482	44	381
Track-hanger	L. Terry	390,412	Oct. 2	301	79	45	64
Track-laying apparatus	F. Herman	395,053	Dec. 25	2050	529	45	1495
Track-lifter	G. Rainnie	383,988	June 5	219	65	43	1163
Track or other raising and lowering device	L. H. Williams	393,598	Nov. 27	2090	548	45	1027
Track. Overhead	H. G. Murrell	377,044	Jan. 31	1909	502	42	395
Track. Portable connecting-	A. V. Du Pont	381,874	Apr. 24	615	43	494	
Traction-engine	F. Batter	382,857	May 15	1452	381	43	809
Traction-engine	A. K. Gibson	378,502	Feb. 28	1742	460	42	800
Traction-engine	G. T. Glover	394,851	Dec. 18	1733	449	45	1426
Traction-engine	M. E. Hershey	375,815	Jan. 3	123	36	42	29
Traction-engine	D. B. James	383,179	May 22	1943	510	43	915
Traction-engine	E. M. Knollin	388,692	Aug. 28	2282	613	44	1031
Traction-engine	D. Remington	377,274	Jan. 31	2245	593	42	460
Traction-engine	H. O. Sicker	380,601	Apr. 3	446	126	43	91
Traction-engine	H. D. Smith and F. M. Walker	379,996	Mar. 27	1699	453	42	1315
Traction-engines. Differential gear for	E. Kite	376,528	Jan. 17	1140	298	42	233
Traction-increasing apparatus. Electro-magnetic	E. E. Ries and A. H. Henderson	379,816	Mar. 20	1415	376	42	1251
Traction-wheel	E. H. Ashcroft	381,202	Apr. 17	1369	366	43	282
Traction-wheel	A. B. Case	383,625	May 29	2609	690	43	1048
Traction-wheel	G. E. Lewis	388,423	Aug. 28	1901	508	44	958
Traction-wheel	J. J. Steiger	386,169	July 17	1227	328	44	256
Trade-marks and attaching them to fabrics. Forming	G. J. Browne	377,141	Jan. 31	2054	538	42	424
Traffic. Appliance for handling rapid-transit passenger	A. M. Wellington. (Reissue)	10,927	May 1	610	155	43	626
Train-order signal	A. A. Strom	385,883	July 10	829	219	44	169
Train-signal	A. C. Griggs	393,431	Nov. 27	1829	482	45	973
Train time and speed indicator	J. A. Wilkin	391,671	Oct. 23	2074	562	45	427
Trains. Device for automatically stopping	I. L. Meloon and P. S. Whiting	395,163	Dec. 25	2239	575	45	1530
Tramway. Electric	M. H. Smith	394,621	Dec. 18	1340	351	45	1348
Tramway. Electrical	H. T. Blake	383,273	May 22	2085	548	43	941
Tramway. Electrical	H. T. Blake and C. Sterling	383,274	May 22	2087	548	43	941
Tramway for carrying elevated loads	A. E. Brown	382,634	May 8	1148	295	43	739
Tramway for hoisting and conveying machines Elevated.	A. E. Brown	382,635	May 8	1150	296	43	739
Tramway. Rope	J. W. Reno	394,724	Dec. 18	1502	392	45	1380
Tramway. Suspended	C. H. Thompson	382,782	May 15	1359	357	43	789
Tramway-switch	C. E. Andersson	388,388	Aug. 28	1857	495	44	949
Transformer. Continuous and alternating	F. Fehl	379,073	Mar. 6	307	90	42	1023
Transom-lifter	J. J. Ball and J. A. McBride	386,794	July 31	2153	567	44	453
Transom-lifter	P. Bradford	393,611	Nov. 27	2116	553	45	1032
Transom-lifter	S. L. Hill	376,955	Jan. 24	1788	470	42	364
Transom-lifter	R. Hittinger	389,302	Sept. 11	777	197	44	1227
Transom-lifter	C. Hromas and F. Mach	392,560	Nov. 6	558	141	45	702
Transom-lifter	A. Langstrom	377,312	Jan. 31	2303	609	42	471
Transom-lifter	G. S. Perkins	386,343	July 17	1480	393	44	302
Transom-lifter	H. E. Russell, Jr.	377,362	Jan. 31	2385	689	42	484
Transom-lifter	J. F. Wollensak	381,741	Apr. 24	2157	565	43	455
Transom-lifter	J. F. Wollensak	381,742	Apr. 21	2159	565	43	455
Transom-lifter	J. F. Wollensak	381,743	Apr. 24	2161	565	43	456
Transom-lifter	J. F. Wollensak	381,744	Apr. 24	2162	565	43	456
Transom-lifter	J. F. Wollensak	384,182	June 5	505	138	43	1219
Transparencies. Producing colored	F. W. Oliver	393,919	Dec. 4	274		45	1124
Transplanter	C. E. Tobey	388,321	Aug. 21	1748	467	44	923
Transplanting implement	T. R. Coon	383,629	May 29	2613	691	43	1049
Transplanting-pot	I. N. Foster	378,047	Feb. 14	1057	276	42	713
Transplanting trees. Device for	T. E. Stanley and C. D. Guiley	388,154	Aug. 21	1495	398	41	873
Trap							
See Animal-trap.	Lobster-fishing trap.						
Ant-trap.	Mole-trap.						
Anti-siphoning trap.	Mole and gopher trap.						
Ball-trap.	Pigeon-trap.						
Chinch-trap.	Plumber's trap.						
Fish-trap.	Rat-trap.						
Fish or game trap.	Sand-trap.						
Fly-trap.	Sewer-trap.						
Gas-trap.	Sink-trap.						
Hog-trap.	Steam-trap.						
Insect-trap.	Target-trap.						
Jaw-trap.	Water-trap.						
Trap	W. R. Blaney	381,524	Apr. 24	1853	490	43	396
Trap	E. A. Stears	381,288	Apr. 17	1488	401	43	306

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Trap.....	H. C. Weeden.....	390,634	Oct. 2	601	160	45	121
Trap-doors. Device for operating.....	J. C. French.....	394,259	Dec. 11	780	207	45	1228
Trap for sinks, &c.....	O. R. Evans.....	391,600	Oct. 23	1983	535	45	408
Traps. Forcing-cylinder for cleaning.....	J. H. Austin.....	382,129	May 1	372	97	43	582
Traps. Manufacture of the bodies of stench.....	G. C. Phillips.....	389,761	Sept. 18	1462	383	44	1365
Traveler or trolley.....	L. Daft.....	388,538	Aug. 28	2037	553	44	989
Traveling-bag.....	A. C. Frankel.....	381,969	June 26	1680	436	43	1466
Traveling-bag.....	F. C. Schmidt.....	382,771	May 15	1339	352	43	785
Traveling-case.....	E. Poliwka.....	394,994	Dec. 25	1972	508	45	1479
Tray-chair.....	W. B. Pierce.....	377,720	Feb. 7	552	141	42	599
Tray for collecting cotton.....	S. B. Pratt.....	381,711	June 19	1308	342	43	1386
Tray or pan. Ash.....	W. M. Bowman.....	379,195	Mar. 6	472	133	42	1056
Tray. Sample.....	D. Goldstein.....	376,739	Jan. 24	1466	387	42	304
Trays, &c. Machine for making wooden.....	W. C. Freeman.....	380,255	Mar. 27	2062	552	42	1387
Trays or boxes. Case for holding and presenting.....	E. Reynolds.....	394,210	Dec. 11	695	186	45	1212
Treadle.....	J. Dufraino.....	394,470	Dec. 11	1088	282	45	1287
Treadle.....	J. H. Whitney.....	394,626	Dec. 18	1351	893	45	1350
Treadle-machines. Power attachment for.....	E. Von Boeckmann.....	393,131	Nov. 20	1392	363	45	879
Treadle. Swinging.....	O. H. Gentry.....	380,029	Mar. 27	1754	470	42	1324
Treadles. Foot-holder for.....	C. S. Wardwell.....	376,566	Jan. 17	1185	312	42	242
Tree: See Boot and shoe tree. Saddle-tree.							
Tree extractor and carrier.....	H. P. Lentz.....	389,089	Sept. 4	412	108	44	1151
Tree-felling machine.....	W. E. Rickard.....	389,596	Sept. 18	1216	318	44	1316
Tree-protector.....	J. F. Birth.....	389,047	Sept. 4	349	92	44	1139
Tree-protector.....	J. O. Brown.....	377,448	Feb. 7	152	35	42	524
Tree-protector.....	E. L. Frantz.....	379,948	Mar. 27	1629	434	42	1301
Tree-protector.....	J. S. Newell and J. O. Brown.....	383,824	May 29	2921	771	43	1108
Trees. Device for fumigating.....	L. H. Titus.....	385,389	July 3	74	21	44	16
Trellis-support.....	E. D. Watrons.....	377,444	Feb. 7	146	33	42	522
Trestle.....	O. B. Claré.....	390,753	Oct. 9	774	206	45	160
Trestle. Carpenter's.....	H. C. Smith.....	394,026	Dec. 4	419	113	45	1151
Trestle. Extension.....	J. E. Wallace and C. D. Reese.....	390,539	Apr. 3	351	100	43	72
Trestle. Extension.....	J. E. Wallace and C. D. Reese.....	390,103	Sept. 25	1984	527	44	1476
Trestle. Folding.....	T. McGovern.....	391,629	Oct. 23	2023	547	45	416
Trestle. Portable.....	J. G. Rush.....	381,510	Apr. 17	1827	483	43	373
Trestle. Reversible.....	W. H. Phillips.....	386,218	July 17	1317	348	44	272
Tricycle.....	J. H. Dearlove and H. Thresher.....	381,763	Apr. 24	2185	572	43	460
Tricycle.....	S. Elliott.....	379,270	Mar. 13	585	161	42	1082
Tricycle.....	P. Gallagher.....	388,963	Sept. 4	230	61	44	1116
Tricycle.....	F. E. Kohler.....	381,144	Apr. 17	1291	345	43	268
Tricycle.....	H. La Casse.....	389,517	Sept. 11	1060	286	44	1284
Tricycle.....	R. Mullins.....	381,504	Apr. 17	1819	481	43	371
Tricycle.....	T. O'Brien.....	394,287	Dec. 11	824	219	45	1238
Tricycle.....	G. W. Rodecap.....	376,551	Jan. 17	1169	307	42	238
Tricycle.....	H. W. Schiermeyer.....	380,770	Apr. 10	705	195	43	149
Tricycle.....	M. Slutz.....	381,590	Apr. 24	1946	513	43	414
Tricycle.....	C. Yingst.....	394,429	Dec. 11	1030	270	45	1277
Trigonometrical computations. Instrument for.....	A. J. Leschorn.....	378,257	Feb. 21	1380	362	42	780
Trimmer: See Edge-trimmer. Hoof-trimmer. Gang-trimmer. Lawn-trimmer. Heel-trimmer. Vessel-trimmer.							
Trimming-table.....	S. W. Patterson.....	383,368	May 22	2216	588	43	965
Triple-expansion engine.....	M. T. Davidson.....	376,639	Jan. 17	1316	346	42	266
Triple-expansion engine.....	H. F. Gaskill.....	394,482	Dec. 11	1102	286	45	1290
Tripod.....	F. N. Cottle.....	381,340	Apr. 17	1570	421	43	323
Tripod-head.....	C. D. Oatman.....	385,567	July 3	356	92	44	71
Titrating-machine.....	G. Goll.....	385,703	July 24	2012	531	44	417
Triturator.....	L. Sherman.....	383,020	May 15	1690	442	43	857
Trolley.....	F. E. Fisher.....	393,749	Dec. 4	22	8	45	1076
Trolling-spoon hook.....	J. R. Harlow.....	378,678	Feb. 28	1995	527	42	909
Trough: See Eaves-trough. Water-trough. Feed-trough. Watering-trough. Hog-trough.							
Trousers.....	B. Goodman.....	387,351	Aug. 7	225	59	44	615
Trousers. Apparatus for pressing.....	G. Whitaker and L. L. B. Williams.....	380,965	Apr. 10	1001	256	43	203
Trousers or overalls.....	J. Hetherington, Jr.....	381,624	Apr. 24	1995	523	43	423
Trousers-stretcher.....	B. H. Clowes.....	380,550	Apr. 3	370	105	43	76
Trousers-stretcher.....	G. H. Coursen.....	388,952	Sept. 4	218	58	44	1114
Trousers-stretcher.....	H. E. Galloway.....	376,083	Jan. 10	503	135	42	108
Trousers-stretcher.....	B. J. Greely.....	391,241	Oct. 16	1495	397	45	303
Trousers-stretcher.....	E. McLaughlin.....	379,118	Mar. 6	376	106	42	1036
Truck.....	E. Graetz and E. F. Reinhold.....	377,486	Feb. 7	205	49, 50	42	535
Truck.....	M. Huntley.....	85,181	June 26	2006	514	43	1532
Truck.....	W. J. Kennedy and L. A. DeMayo.....	381,369	June 12	800	208	43	1280
Truck.....	M. Loree.....	376,389	Jan. 10	932	244	42	187
Truck.....	M. Loree.....	380,335	Apr. 3	42	15	43	10
Truck.....	R. McMillin.....	394,385	Dec. 11	972	256	45	1267
Truck.....	F. H. Otto.....	378,937	Mar. 6	110	32	42	988
Truck.....	W. W. Roche.....	384,078	June 5	349	98	43	1187
Truck.....	E. F. Scholder.....	387,741	Aug. 14	826	213	44	737
Truck.....	J. T. Towsley.....	389,674	Sept. 18	1342	352	44	1340
Truck and extension-ladder. Fire.....	R. Smith and H. H. Mansfield.....	375,779	Jan. 3	80	24	42	20
Truck and ladder.....	J. L. Crafts.....	379,053	Mar. 6	281	81, 82	42	1018
Truck and stand. Barrel.....	E. H. Gallup.....	375,740	Jan. 3	31	9	42	9

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Truck and weighing-scale. Combined hand-	E. G. Collins	391,453	Oct. 23	1788	{ 477 478 }	45	366
Truck-bar.	J. H. Fisher	388,770	Aug. 28	2378	647	44	1652
Truck. Barrel.	B. J. S. Davis	381,762	Apr. 24	2185	571	43	460
Truck. Brick.	J. C. Steele	380,603	Apr. 3	448	126	43	91
Truck. Cable-car.	S. A. Benis	388,811	Sept. 4	5	2	41	1074
Truck. Car.	J. C. Barber	383,682	May 29	2693	712	43	1066
Truck. Car.	W. J. Brewer	381,505	June 12	1001	261	43	1319
Truck. Car.	J. E. W. Carrier	386,109	July 17	1145	304	44	238
Truck. Car.	S. Davis	376,077	Jan. 10	493	133	42	106
Truck. Car.	J. R. Fish	378,925	Mar. 6	90	36	42	984
Truck. Car.	J. R. Fish	378,926	Mar. 6	91	36	42	984
Truck. Car.	L. Goddu	381,620	Apr. 24	1989	522	43	422
Truck. Car.	M. G. Hubbard	384,317	June 12	711	199	43	1266
Truck. Car.	L. K. Jewett	383,180	May 22	1945	510	43	915
Truck. Car.	L. K. Jewett	383,181	May 22	1946	510	43	915
Truck. Car.	L. K. Jewett	384,381	June 26	1937	441	43	1469
Truck. Car.	L. K. Jewett	381,982	June 26	1701	441	43	1470
Truck. Car.	A. C. Oehrlie	379,905	Mar. 20	1566	413	42	1278
Truck. Car.	F. E. Pettungill and T. F. Chappell	393,921	Dec. 4	276	75	45	1124
Truck. Car.	C. Thompson	390,267	Oct. 2	97	28	45	23
Truck. Car.	F. S. Tull	389,343	Sept. 11	827	211	44	1238
Truck. Car.	J. N. Weikly	388,095	Aug. 21	1370	{ 370 371 }	44	852
Truck. Car.	W. Yonmans	383,164	May 22	1932	{ 502 503 }	43	910
Truck equalizers. Die for forging	J. Reiley	387,812	Aug. 14	921	239	44	756
Truck. Fire-ladder	E. F. Steck	379,424	Mar. 13	813	219	42	1127
Truck for cars. Changeable gage	S. R. Wilson	381,312	Apr. 17	1523	411	43	313
Truck for cars. Motor.	H. Skinner	377,122	Jan. 31	2024	532	42	419
Truck for moving buildings	G. Harden	389,568	Sept. 18	1162	305	44	1307
Truck. Hack.	P. L. and C. D. Sword	380,062	Mar. 27	1799	{ 480 481 }	42	1334
Truck. Hand.	J. H. Alexander	382,248	May 1	540	138	43	613
Truck. Hand.	W. H. Berger	394,442	Dec. 11	1047	274	45	1280
Truck. Hand.	W. H. Berger	394,443	Dec. 11	1048	274	45	1280
Truck. Hand.	J. J. Hahn	389,383	Sept. 11	889	232	44	1249
Truck. Hand.	F. W. Hoefer	392,609	Nov. 13	644	161	45	724
Truck. Hand.	J. G. Parker	391,554	Oct. 23	1924	518	45	396
Truck. Hand.	S. Rogers	376,209	Jan. 10	691	183	42	142
Truck. Hand.	W. Sanders and J. B. Rafferty	391,560	Oct. 23	1929	520	45	397
Truck. Ladder.	E. F. Steck	379,495	Mar. 13	921	{ 218 219 }	42	1147
Truck. Locomotive.	A. C. Packer	385,476	July 3	210	55	44	42
Truck. Lumber.	W. H. Coleman	394,459	Dec. 11	1071	278	45	1284
Truck. Merchandise.	H. B. Campbell	393,293	Nov. 20	1630	428	45	927
Truck. Passenger-car.	L. K. Jewett	388,046	Aug. 21	1292	350	44	836
Truck. Piano.	L. Miller and T. A. Wheeler	389,711	Sept. 18	1396	365	44	1351
Truck. Railway-motor.	C. W. Hunt	379,766	Mar. 20	1358	362	42	1240
Truck. Safety-car.	H. D. Thompson	388,743	Aug. 28	2350	{ 633 634 }	44	1045
Truck. Stove.	J. H. Bell and A. L. Gregory	383,610	May 29	2590	685	43	1043
Truck. Stove.	J. K. Herr and J. G. Dulebohn	382,361	May 8	730	184	43	657
Truck. Stove.	G. Hess	378,135	Feb. 21	1192	311	42	746
Truck. Stove.	B. O. Wilson	388,516	Aug. 28	2025	545	44	983
Truck. Traction.	W. H. Bedell	376,703	Jan. 17	1411	370	42	284
Truck. Traction.	G. H. Edwards	385,449	July 3	173	47	44	35
Truck. Turn-table extension-ladder.	E. Adecock	383,681	May 29	2685	710	43	1064
Truck. Turn-table extension-ladder.	C. Hicks	383,731	May 29	2761	728	43	1079
Truck. Turn-table extension-ladder.	E. B. Preston	383,828	May 29	2927	{ 773 774 715 716 }	43	1109
Truck. Water-tower	A. Bruegger, Jr.	383,699	May 29	2710	716	43	1069
Truck-wheel and driver box. Locomotive	J. M. Wallis	393,045	Nov. 20	1282	332	45	858
Truck wheel. Hand.	M. J. Cummings	383,214	May 22	1993	532	43	924
Trucks. Apparatus for automatically counting and registering railway.	H. Mohr	379,890	Mar. 20	1382	367	42	1245
Trucks. Body-bearing for car.	W. Sutton	389,175	Sept. 4	571	{ 144 145 }	44	1177
Trucks. Bolster for car.	H. Loving	392,739	Nov. 13	830	211	45	761
Trucks. Center bearing for car.	G. W. Dithridge	380,870	Apr. 10	852	230	43	175
Trucks. Die for forging transoms for car.	J. Reiley	389,408	Sept. 11	926	243	44	1256
Trucks. Journal-bearing for car.	M. G. Hubbard	389,965	Sept. 25	1769	{ 469 470 }	44	1433
Trucks. Safety appliance for car.	G. Rainnie	390,804	Oct. 9	843	225	45	173
Trucks. Safety-guard for car.	W. H. Walker	385,155	June 26	1975	505	43	1526
Trucks. Safety-shoe for car.	A. M. Woodruff	388,168	Aug. 21	1511	403	44	876
Trunk	W. J. Boynton	385,404	July 3	101	28	44	22
Trunk	W. L. Hocker	394,488	Dec. 11	1109	288	45	1291
Trunk	J. B. Hubbell	379,514	Mar. 13	954	257	42	1153
Trunk	A. T. Hyde	395,055	Dec. 25	2057	530	45	1497
Trunk	P. H. Keene	390,234	Oct. 2	58	16	45	15
Trunk	W. J. Large	380,493	Apr. 3	271	75	43	56
Trunk	W. J. Large	385,189	June 26	2024	518	43	1536
Trunk	W. D. Stillman	386,902	July 31	2340	615	44	486
Trunk attachment	C. W. Clifton	388,634	Aug. 28	2196	590	44	1015
Trunk-brace	G. W. Rush and J. J. Weightman	392,525	Nov. 6	512	129	45	692
Trunk. Convertible	K. L. Karo	391,621	Oct. 23	2012	544	45	414
Trunk-fixture	C. A. Taylor	389,118	Sept. 4	479	123	44	1162
Trunk-fixture	C. A. Taylor	389,119	Sept. 4	481	123	44	1162
Trunk-handle	G. Cronch	388,638	Aug. 28	2201	592	44	1016
Trunk-harness	W. H. Gabbis	380,431	Apr. 3	178	49	43	37
Trunk-lid support	S. Jones	387,886	Aug. 14	1031	271	44	777
Trunk-lift and strap-fastening. Combined	G. Cronch	385,242	June 26	2102	538	43	1552

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Trunk or chest.....	M. J. S. Marshall.....	377,039	Jan. 31	1904	501	42	393
Trunk-strap coupling.....	H. B. Lum.....	387,086	July 31	2506	624	44	536
Trunk tray and follower.....	G. E. Milburn.....	384,379	June 12	816	212	43	1284
Trunk-top.....	F. Kukkuck.....	380,291	Mar. 27	2109	564	42	1396
Truss.....	B. F. Atkinson.....	385,587	July 3	382	99	44	76
Truss.....	G. W. Dell.....	392,983	Nov. 20	1196	{ 310 311 }	{ 45 45 }	{ 840 840 }
Truss.....	C. Cluthe.....	384,611	June 19	1153	305	43	1356
Truss.....	L. B. Craig.....	376,661	Jan. 24	1063	434	42	339
Truss.....	R. H. Fargue.....	383,717	May 29	2748	724	43	1076
Truss.....	E. James.....	395,278	Dec. 25	2417	619	45	1562
Truss.....	H. W. Kriete.....	388,365	Aug. 21	1832	484	44	936
Truss.....	W. Marsh.....	391,480	Oct. 23	1823	{ 487 488 }	{ 45 45 }	{ 374 374 }
Truss.....	O. M. Robinson.....	385,573	July 3	363	94	44	73
Truss.....	J. R. Speer.....	390,143	Sept. 25	2036	542	44	1488
Truss.....	H. C. Stickney.....	381,727	Apr. 24	2141	561	43	453
Truss.....	L. B. Stuart.....	381,089	Apr. 10	1309	323	41	243
Truss.....	J. H. Warren.....	391,099	Oct. 16	1300	347	45	265
Truss.....	J. Wilke.....	388,608	Aug. 28	2159	579	44	1009
Truss. Galvanic abdominal.....	L. Epplé.....	390,354	Oct. 2	220	58	45	47
Truss-pad.....	E. W. Holt.....	390,782	Oct. 9	815	216	45	168
Tub: See Bath-tub.           Stone tub. Butter-tub.           Wash-tub. Mash-tub.							
Tub-hoop.....	H. M. Lourie.....	326,478	July 24	1695	447	44	358
Tubs. Adjustable frame for laundry.....	C. J. Everett.....	378,580	Feb. 28	1853	489	42	882
Tubs. Adjustable support for laundry.....	A. G. Robinson.....	379,333	Mar. 13	682	185	42	1101
Tubs. Combined overflow, supply, and waste for.....	F. A. Wells.....	380,373	Apr. 3	103	31	43	22
Tube: See Dispatch-tube.       Spirally-welded tube. Metal tube.           Veterinary drenching- Metallic tube.       tube. Sheet-metal tube.   Well-tube. Speaking-tube.							
Tube.....	J. W. Orphy.....	390,699	Oct. 9	696	185	45	146
Tube.....	M. L. Ritchie.....	378,976	Mar. 6	158	46	42	997
Tube and making the same.....	D. A. Garver and C. H. Straight.....	385,109	June 26	1907	446	43	1513
Tube and making the same. Seamless.....	C. A. Marshall.....	377,318	Jan. 31	2311	671	42	472
Tube-bending device.....	W. C. Winfield.....	379,750	Mar. 20	1301	347	42	1299
Tube-blank and making the same.....	C. A. Marshall.....	377,317	Jan. 31	2309	670	42	472
Tube-blanks. Opening and shaping.....	C. A. Marshall.....	389,586	Sept. 18	1196	313	44	1313
Tube-cleaner.....	A. Rast.....	386,848	July 31	2362	565	41	471
Tube-coupling.....	A. C. Kimball.....	384,582	June 12	1111	294	43	1339
Tube-coupling.....	F. A. Williams.....	381,869	Apr. 24	2360	612	43	493
Tube-cutter.....	J. R. Vance.....	380,777	Apr. 10	713	197	41	151
Tube-expander.....	J. Duffy.....	383,111	May 22	1853	484	43	896
Tube-expander.....	M. H. McNair.....	392,980	Nov. 6	151	39	45	622
Tube-expander.....	J. H. Richards and E. Huber.....	376,485	Jan. 17	1074	281	42	221
Tube-expander.....	C. H. Robinson.....	381,583	Apr. 24	1922	508	43	410
Tube-expander.....	W. H. Tebean and M. N. De Long.....	386,728	July 24	2044	539	41	423
Tube-skelps for handling. Preparing.....	A. L. Murphy.....	376,780	Jan. 24	1538	405	42	317
Tube-welding apparatus.....	J. Hemphill.....	381,975	June 26	1689	439	43	1468
Tubes. Drawing.....	W. Von Flotow and H. Leidig.....	391,994	Oct. 30	2554	692	45	531
Tubes. Machine for closing the ends of metal.....	J. P. Kennedy.....	329,087	Sept. 4	409	107	41	1151
Tubes. Machine for corrugating wrought-metal.....	R. F. Pratt and C. D. Wainwright.....	390,899	Oct. 9	976	257	45	197
Tubes. Machine for expanding and trimming.....	J. Andersen.....	394,548	Dec. 18	1213	317	45	1325
Tubes. Machine for making spirally-jointed.....	T. S. Crane.....	393,743	Dec. 4	9	4	45	1074
Tubes. Machine for slotting.....	J. H. Viuton.....	391,297	Apr. 17	1497	404	43	308
Tubes. Machinery for making.....	W. E. Everitt.....	390,957	Oct. 9	1065	281	45	215
Tubes. Making.....	L. Gathmann.....	389,144	Sept. 4	520	132	41	1168
Tubes. Making metallic.....	L. F. Betts.....	390,554	Oct. 2	506	133	45	102
Tubes. Making seamless.....	W. H. Brown.....	377,347	Jan. 31	2360	682	42	380
Tubes. Making seamless.....	W. H. Brown.....	377,348	Jan. 31	2362	683	42	381
Tubes. Manufacture of sheet-metal.....	E. K. Coas.....	378,719	Feb. 28	2113	558	42	931
Tubes. Mechanism for making seamless.....	R. and M. Maunessmann.....	389,585	Sept. 18	1193	{ 312 313 322 323 }	{ 44 44 43 42 }	{ 1213 1213 684 114 }
Tubes. Mechanism for the manufacture of angular.....	T. J. Bray.....	382,454	May 8	871	{ 322 323 }	{ 43 42 }	{ 684 114 }
Tubes. Method of and means for reducing the diameter of.....	A. Paterson.....	376,106	Jan. 10	534	142	42	114
Tubes. Straightening.....	L. L. Burdon.....	381,526	Apr. 24	1855	491	43	396
Tubing. Making spirally-welded.....	J. B. Root.....	376,681	Jan. 17	1376	362	42	777
Tubular boiler.....	B. McCarren.....	389,893	Sept. 25	1676	{ 442 443 }	{ 44 44 }	{ 1413 1413 }
Tubular form. Machine for bending blanks into.....	D. S. Hall.....	380,107	Mar. 27	1865	496	42	1347
Tug.....	S. H. French and W. J. Maltby.....	385,855	July 10	782	208	44	159
Tug.....	C. Vuerker.....	393,600	Nov. 27	2095	548	45	28
Tag coupling. Hame.....	D. Hill.....	376,305	Jan. 10	814	215	42	765
Tag-fastener.....	F. P. Circle.....	381,906	May 1	14	4	43	818
Tug. Hame.....	C. N. Anderson and R. McPhail.....	389,630	Sept. 18	1264	332	44	128
Tug. Hame.....	W. Boardman.....	392,306	Nov. 6	183	47	45	625
Tug. Hame.....	M. Commander.....	377,709	Feb. 7	540	138	42	196
Tug. Hame.....	L. G. Gustavcl.....	394,358	Dec. 11	934	245	45	1660
Tug. Hame.....	C. A. Kupfer.....	380,903	Apr. 10	907	243	43	186
Tug. Hame.....	W. M. Lerch.....	392,352	Nov. 6	261	67	45	644
Tug. Hame.....	R. F. Russel.....	384,085	June 5	358	101	43	1189
Tug. Hame.....	G. Schmidt.....	383,151	May 22	1907	498	43	907
Tug. Hame.....	J. S. Schott.....	382,058	May 1	274	72	43	563
Tug-hook.....	J. A. Brill.....	376,810	Jan. 24	1588	416	42	326
Tug or trace carrier.....	G. T. Arnold.....	381,317	Apr. 17	1531	412	43	314
Tug. Shaft.....	L. Burg.....	391,835	Oct. 30	2326	630	45	486
Tug. Shaft.....	W. Snow.....	392,373	Nov. 6	295	74	45	651

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Tumbler or bottle washer.	L. L. Rowe	378,621	Feb. 28	1908	505	42	893
Tumbler-washer	A. Blair	388,248	Aug. 21	1629	436	44	900
Tumbler-washer	J. F. McQuaide	386,256	July 17	1371	361 362	44	282
Tuning hammer.	F. W. Hale. (Reissue)	10,946	July 24	2147	563	44	442
Tuning-key	M. Hernandez	384,442	June 12	837	234	43	1300
Tuning-peg for stringed instruments.	L. L. Filstrup and G. Van Zant	382,465	May 8	888	226	43	657
Turbine.	J. T. Obenchain	379,718	Mar. 20	1258	336	42	1220
Turn-buckle	G. F. Stillman	390,992	Oct. 9	1125	297	45	225
Turn-buckles. Making.	M. Kennedy	395,281	Dec. 25	2420	620	45	1562
Turn-key	A. T. Matthews	386,549	July 24	1807	477	44	377
Turn-table	J. D. Bowman	389,541	Sept. 18	1117	294 295	44	1299
Turn-table for tramways or street-railways	H. Huston and E. J. Martin	385,807	July 10	709	184	44	146
Turning cross-head pins. Machine for	B. J. Coates	376,235	Jan. 10	724	193	42	145
Turning irregular forms. Machine for	H. E. Taylor	384,002	June 5	236	69	43	1167
Turning-machine	R. B. Codling	379,307	Mar. 13	646	175 176	42	1094
Turning wooden rings. Machine for	M. E. Clark	389,057	Sept. 4	364	95, 96	44	1141
Turret. Armor.	H. Gruson	376,985	Jan. 24	1826	480	42	371
Turret-lock	F. H. Richards	390,190	Sept. 25	2109	562	44	1502
Tuyere	J. Cumming	386,528	July 24	1776	470	44	371
Tuyere	H. B. Keiper	391,474	Oct. 23	1818	486	45	373
Tuyere	A. Vansickle	386,669	July 24	1966	519	41	409
Tuyere	R. O. Young	393,136	Nov. 20	1398	365	45	880
Tuyere for forges	H. T. Nielsen	385,723	July 10	584	151	41	121
Twine	J. Lyall	377,263	Jan. 31	2231	42	457	
Twine guide and cutter.	L. Goodyear	383,120	May 22	1867	488	43	899
Twine-holder	J. E. Coles	393,619	Nov. 27	2129	557	45	1034
Twine-holder	J. C. Haile	392,328	Nov. 6	222	57	45	636
Twine-holder	J. Hill	383,573	May 29	2537	670	43	1031
Twine-holder	R. Nicol, Jr.	381,385	June 12	822	214	43	1285
Twine-holder	A. B. Tomlin	383,157	May 23	1914	500	43	908
Twine holder and cutter	L. Goodyear	394,168	Dec. 11	631	169	45	1201
Twine-holder. Automatic	D. A. Morrison	386,081	July 10	1091	293	44	223
Twine-loosener	M. L. Nichols	386,411	July 17	1594	419	41	328
Twist-drill	H. E. Holmes	390,672	Oct. 9	657	176	45	139
Twist-drills. Die for making	A. W. Taber	380,146	Mar. 27	1917	511	42	1357
Twisting frames, &c. Stop-motion for	P. Smith, Jr., and S. Ambler	388,509	Aug. 28	2016	542	44	981
Type-bar	O. Mergenthaler	393,846	Dec. 4	165	41	45	1163
Type-bars. Machine for forming	O. Mergenthaler	378,797	Feb. 28	2149	568 569 570 571 572 573	42	933
Type-bars. Machine for producing	O. Mergenthaler	378,798	Feb. 28	2157	574 575 576	42	940
Type-bars. Manufacture of	W. Baker	392,177	Nov. 6	4	2	45	595
Type-beds. Cushioning device for	C. H. Campbell	380,182	Mar. 27	1963	524	42	1366
Type-case stand	W. P. Harmony	383,292	May 22	2114	558	43	946
Type-containing channel	A. A. Low	381,802	Apr. 24	2240	587	43	471
Type-distributing apparatus	L. K. Johnson and A. A. Low	391,798	Oct. 30	2270	615 616	45	476
Type-distributing apparatus	L. K. Johnson and A. A. Low	392,806	Nov. 13	937	239 240 203 204 205	45	782
Type-distributing machine	L. Dow	394,255	Dec. 11	769	178 179	45	1227
Type-founding machine	F. Kohn	390,680	Oct. 9	667	458 459 460	45	141
Type-line holder	L. K. Johnson and A. A. Low	386,783	July 24	2128	559	44	438
Type-line support.	A. A. Low	375,757	Jan. 3	51	15	42	14
Type-line support	A. A. Low	375,758	Jan. 3	52	16	42	14
Type. Machine for dressing and grooving	W. H. Welsh	380,004	Mar. 27	1714	458 459 460	42	1318
Type. Making wood	M. G. Merritt	387,527	Aug. 7	486	127	44	668
Type. Making wood	G. C. Setchell	389,112	Sept. 4	470	121	44	1160
Type-metal pot and furnace	G. Bender	389,135	Sept. 4	502	128	44	1165
Type. Printer's	J. G. Payer	388,713	Aug. 28	2314	622	44	1037
Type. Producing dies for making wood	G. C. Setchell	389,113	Sept. 4	471	121	44	1160
Type production. Relief	J. W. Hoke	388,361	Aug. 21	1814	483	44	935
Type-rubbing machine	G. S. Eaton and J. C. Birch	380,558	Apr. 3	381	108 109	43	78
Type-rubbing machine	F. Geissel	378,880	Mar. 6	35	9, 10	42	973
Type-rubbing machinery	G. S. Eaton and J. C. Birch	380,559	Apr. 3	384	109 110	43	78
Type setting and distributing indicator.	J. B. Odell	392,358	Nov. 6	270	69	45	645
Type. White-letter	R. D. De Little	394,446	Dec. 11	915	211	45	1256
Type-writer.	B. A. Brooks	379,095	Mar. 6	347	99	42	1031
Type-writer cabinet.	L. G. Billings	382,942	May 15	1571	410	43	833
Type-writer cabinet	P. O. Harter and C. A. Parker	390,298	Oct. 2	134	38	45	30
Type-writer cabinet.	W. Horrocks	375,819	Jan. 3	126	37	42	30
Type-writer cabinet	W. Horrocks	376,092	Jan. 10	515	138	42	110
Type-writer cabinet.	W. Horrocks	379,957	Mar. 27	1642	437 438	42	1303
Type-writer cabinet.	J. Kiefer	394,377	Dec. 11	962	253	45	1265
Type-writer cabinet.	B. P. Richardson	383,492	May 29	2123	643	43	1009
Type-writer cover.	G. H. Lasar	386,139	July 17	1187	316	44	248
Type-writer. Electrical	J. F. McLaughlin	386,646	July 24	1929	510 511	44	402

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dis.	Vol.	Page.
Type-writer. Electrical .....	J. F. McLaughlin .....	388,140	Aug. 31	1462	{ 392 393	44	868
Type-writer. Electrical .....	J. F. McLaughlin .....	388,141	Aug. 31	1468	{ 393 394	44	869
Type-writer. Electrical .....	J. F. McLaughlin .....	388,142	Aug. 31	1474	{ 394 395	44	870
Type-writer. Electrical .....	J. F. McLaughlin .....	388,143	Aug. 31	1481	395	44	871
Type-writer. Electro-mechanical .....	J. F. McLaughlin .....	388,565	July 3	351	91, 92	44	70
Type-writers. Automatic electric spacing mechanism for .....	J. F. McLaughlin .....	379,406	Mar. 13	725	212	42	1120
Type-writers. Copy-holding device for .....	T. G. Palmer .....	390,800	Oct. 9	837	223	45	172
Type-writer's erasing-shield .....	L. D. Craig .....	394,342	Dec. 11	910	239	45	1255
Type-writer's erasing-shield .....	R. B. McCulloch .....	391,419	Oct. 23	1737	463	45	356
Type-writers. Registering attachment for .....	W. Spence and A. Pullan .....	392,642	Nov. 13	688	173	45	733
Type-writers. Type-segment for .....	L. T. Weiss .....	380,372	Apr. 3	102	30	43	22
Type-writing machine .....	E. H. Argent .....	387,132	July 31	2684	703	44	549
Type-writing machine .....	G. W. Baldrige .....	376,624	Jan. 17	129	339	42	262
Type-writing machine .....	W. J. Barron .....	376,701	Jan. 17	1409	370	42	2-3
Type-writing machine .....	W. J. Barron .....	387,673	Aug. 14	723	185	44	718
Type-writing machine .....	A. T. Brown .....	376,180	Jan. 10	647	173	42	135
Type-writing machine .....	W. M. Carpenter .....	392,258	Nov. 6	118	30, 31	45	617
Type-writing machine .....	J. W. Chrysty .....	393,142	Nov. 20	1403	{ 357 368	45	681
Type-writing machine .....	A. P. Eggis .....	380,792	Apr. 10	741	203	43	155
Type-writing machine .....	J. D. Escobar .....	382,146	May 1	395	103	43	526
Type-writing machine .....	G. L. Ferris .....	384,142	June 5	441	{ 123 124	43	1206
Type-writing machine .....	B. Granville .....	382,036	May 1	242	62, 63	43	558
Type-writing machine .....	T. B. Harrison .....	394,178	Dec. 11	645	{ 173 174	45	1204
Type-writing machine .....	E. C. Locke .....	376,715	Jan. 17	1428	375	42	287
Type-writing machine .....	A. P. Osborn .....	387,534	Aug. 7	494	{ 129 130	44	669
Type-writing machine .....	J. W. Osborne .....	383,480	May 29	2400	639	43	1006
Type-writing machine .....	J. W. Osborne .....	383,481	May 29	2402	639	43	1006
Type-writing machine .....	J. W. Osborne .....	383,482	May 29	2407	640	43	1006
Type-writing machine .....	C. H. Perry .....	393,259	Nov. 20	1577	{ 413 414	45	917
Type-writing machine .....	F. H. Perry .....	394,607	Dec. 18	1319	345	45	1344
Type-writing machine .....	J. Pratt .....	394,995	Dec. 25	1973	{ 508 509 510	45	1480
Type-writing machine .....	E. Prouty and O. S. Hynes .....	389,854	Sept. 18	1609	{ 424 425	44	1393
Type-writing machine .....	F. A. Remley .....	385,008	June 26	1752	451	43	1481
Type-writing machine .....	C. Spire .....	381,652	Apr. 24	2028	532	43	430
Type-writing machine .....	F. X. Wagner .....	393,318	Nov. 20	1064	{ 439 440	45	933
Type-writing machine .....	M. Weiss .....	383,383	May 22	2233	593	43	968
Type-writing machine .....	G. W. N. Yost .....	386,100	July 10	1130	300	41	229
Type-writing-machine attachment .....	C. W. Thayer .....	387,752	Aug. 14	840	217	44	739
Type-writing machines. Cabinet for .....	E. Fitch .....	393,225	Nov. 20	1529	400	45	907
Type-writing machines. Ink-ribbon for .....	J. T. Underwood and W. C. Brookes .....	385,391	July 3	77	21	44	17
Type-writing machines. Inking device for .....	L. S. Crandall .....	381,910	May 1	19	5	41	518
Type-writing machines. Type-rest for .....	J. M. Fairfield .....	389,556	Sept. 18	1146	301	44	1304
Umbrella .....	H. Alfman and L. Scharff .....	384,551	June 12	1064	278	43	1330
Umbrella .....	W. B. Dimon .....	387,628	Aug. 14	659	171	44	705
Umbrella .....	I. B. Edington .....	388,852	Sept. 4	72	19	44	1087
Umbrella .....	F. Haitz .....	377,455	Feb. 7	191	37	42	525
Umbrella .....	A. S. Hubbell .....	383,128	May 22	1875	440	43	901
Umbrella .....	E. Q. Ison .....	378,963	Mar. 6	141	41	42	994
Umbrella .....	H. Jeffery .....	381,139	Apr. 17	1282	313	43	266
Umbrella .....	J. D. Nesbitt .....	375,947	Jan. 3	299	80	42	62
Umbrella .....	J. B. Seel .....	391,650	Oct. 23	2049	{ 554 555	45	422
Umbrella .....	J. C. Warren .....	376,693	Jan. 17	1397	367	42	281
Umbrella and cane. Combined .....	W. H. G. Ellis .....	376,870	Jan. 24	1676	437	42	342
Umbrella. Cane .....	J. McCormick .....	386,078	July 10	1087	292	44	222
Umbrella drip-catcher .....	A. Robinson and C. S. Rickard .....	390,255	Oct. 2	84	24	45	20
Umbrella-frames. Manufacture of gits for .....	J. Willis .....	380,377	Apr. 3	110	32	43	24
Umbrella-hanger .....	J. A. Crandall .....	380,996	Apr. 10	1055	278	43	213
Umbrella or parasol runner .....	F. Spannuith .....	379,736	Mar. 20	1283	342	42	1225
Umbrella or parasol runners. Retainer for .....	T. J. Wallace .....	394,418	Dec. 11	1014	266	45	1274
Umbrella or parasol tip .....	M. Reichwein .....	390,900	Oct. 9	978	257	45	198
Umbrella or sunshade .....	L. H. Pearce .....	386,260	July 17	1378	363	44	283
Umbrella-ribs. Machine for manufacturing joints of .....	C. Pieper .....	392,879	Nov. 13	1034	{ 296 297	45	802
Umbrella-runner retainer .....	J. Rose .....	380,935	Apr. 10	954	273	43	195
Umbrella-sticks. Machine for slotting .....	J. Rose .....	391,648	Oct. 23	2046	551	45	422
Umbrella-stretchers. Machine for attaching forks to .....	C. T. Rietschy .....	383,075	May 15	1786	462	43	874
Umbrella-support .....	F. Haitz .....	377,456	Feb. 7	162	37	42	526
Umbrella-support .....	A. B. Stevens .....	382,111	May 1	355	93	43	579
Umbrella-tie .....	D. W. Odiorno .....	384,463	June 12	924	240	43	1305
Umbrellas or other articles. Fastener for .....	J. T. Smith .....	392,888	Nov. 13	1046	270	45	805
Unconpler. Automatic .....	W. R. Funk .....	374,392	Feb. 21	1570	411	42	817
Under-garment. Seamless .....	L. C. Hopkins .....	378,053	Feb. 14	1063	278	42	714
Underground conduit. Electric .....	D. O. Paige .....	394,207	Dec. 11	670	184	45	1212
Underground conduits. Cover for man-hole chambers of .....	M. R. Mackle, Jr., and W. H. B. Teamer .....	392,877	Nov. 13	1031	265	45	802
Underground conduits. Laying .....	W. Lake .....	393,477	Nov. 27	1914	501	45	989
Underground conduits. Turn-out and crossing for .....	C. J. Van Depoele .....	393,277	Nov. 20	1608	421	45	923
Underwaist .....	E. W. Philbrook .....	385,570	July 3	360	93	44	72
Underwaist .....	E. D. Watrous .....	382,628	May 8	1139	293	43	737
Universal joint .....	O. N. Eaton .....	381,348	Apr. 17	1580	424	43	324



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Universal joint.	C. Perrin	384,388	June 12	836	214	43	1285
Upholsterers' tufts. Machine for making	J. L. Moore	383,755	May 29	2805	{ 737 738 }	43	1087
Upholstering chairs	F. G. Johnson	393,984	Dec. 4	368	100	45	1142
Upholstering chairs	F. G. Johnson	394,578	Dec. 18	1269	333	45	1336
Upholstery purposes. Edging for	W. Furl	393,148	Nov. 20	1417	369	45	854
Upholstery, &c. Ring for	H. Ferguson	395,127	Dec. 25	2174	561	45	1518
Upholstery-tufts. Manufacture of	G. Doolittle	384,896	June 19	1589	411	43	1437
Uppers. Machine for goring	C. W. Shippee	386,500	July 24	1720	455	44	362
Upsetting-machine.	W. Cooke and D. Carlough	376,295	Jan. 10	802	212	42	163
Upsetting-machine.	W. Cooke and D. Carlough	380,862	Apr. 10	838	227	43	173
Upsetting-machine.	P. Gendron	382,355	May 8	722	182	43	656
Urinal	J. A. Wills	382,399	May 8	784	199	43	668
Vacuum-apparatus coupling	H. N. D. Parker	387,904	Aug. 14	1062	280	44	783
Vacuum-pan	G. Engel	386,579	July 24	1812	487	44	381
Vacuum-pans. Discharge mechanism for	R. G. Peters	381,070	June 5	341	96	43	1186
Vacuum-pans. Discharge mechanism for	R. G. Peters	384,071	June 5	342	96	43	1186
Valve	J. A. Bradin	393,536	Nov. 27	2006	524	45	1010
Valve	C. Cary	379,446	Mar. 13	843	227	42	1133
Valve	A. D'Anoy	388,766	Aug. 28	2392	646	44	1051
Valve	A. M. Granger	382,524	May 8	978	246	43	704
Valve	L. P. Lawrence	391,716	Oct. 23	2141	579	45	440
Valve	C. Lynch	392,961	Nov. 13	1149	299	45	824
Valve	P. W. Mehan	384,056	June 5	320	91	43	1182
Valve	G. H. Moore	384,330	June 12	739	194	43	1269
Valve	H. S. Park	385,521	July 3	282	72	44	57
Valve	E. F. Williams	384,883	June 19	1566	407	43	1431
Valve and cylinder-cock. Combined relief	J. A. Seymour	382,329	May 8	674	170	43	647
Valve and governor. Pressure-regulating	J. M. Foster	391,786	Oct. 30	2243	610	45	470
Valve and valve-gear	E. P. Spaulding	385,533	July 3	302	77	41	61
Valve apparatus for automatic vacuum-brakes	F. A. Brüggemann	394,330	Dec. 11	889	234	45	1251
Valve apparatus for gas or oil motor engines	N. A. Otto	394,080	Dec. 4	500	134	45	1167
Valve. Automatic	D. J. Timlin and Q. B. Heidinger	386,043	July 10	1039	277	44	213
Valve. Automatic air	A. H. Engström	376,799	Jan. 24	1569	412	42	323
Valve. Automatic cock	J. F. Carpenter	386,523	July 24	1767	{ 466 477 }	44	370
Valve. Automatic electric	C. J. Hexamer	376,651	Jan. 17	1331	350	42	269
Valve. Automatic gas	M. C. Bragdon	386,520	July 24	1764	466	44	369
Valve. Automatic relief	R. M. Beck	392,982	Nov. 20	1194	310	45	840
Valve. Back-pressure	W. A. Taylor	379,880	Mar. 20	1531	404	42	1272
Valve. Balanced	J. T. Lee	392,351	Nov. 6	200	67	45	644
Valve. Balanced governor	P. S. Kingsland	385,273	June 26	217	551	43	1564
Valve. Balanced oscillating	W. T. Reaser	394,505	Dec. 11	1133	294	45	1296
Valve. Balanced rotary	T. H. Parvin	394,992	Dec. 25	1968	507	45	1479
Valve. Balanced slide	L. Adams	378,751	Feb. 28	2088	550	42	926
Valve. Balanced slide	E. J. Armstrong	377,221	Jan. 31	2164	572	42	446
Valve. Balanced slide	J. C. Askren	388,103	Aug. 21	1387	373	44	854
Valve. Balanced slide	T. H. Comrie	375,724	Jan. 3	5	1	42	3
Valve. Balanced slide	G. W. Cisco	389,737	Sept. 18	1432	{ 371 375 }	44	1359
Valve. Balanced slide	J. Youngman	392,578	Nov. 6	586	147	45	707
Valve. Blast-furnace tuyere	F. McCarthy	394,384	Dec. 11	970	255	45	1267
Valve. Check	J. H. Berry	378,917	Mar. 6	81	23	42	982
Valve. Check	H. C. Montgomery	382,655	May 8	1181	305	43	746
Valve. Check	L. Schutte	380,940	Apr. 10	961	255	43	196
Valve. Check	S. Smith	377,963	Feb. 14	942	246	42	691
Valve. Combined stop and regulating	P. Smith	393,150	Nov. 20	1137	380	45	892
Valve-controller. Electric	E. Grah	386,463	July 24	1676	442	44	354
Valve-controller. Thermo-electric	F. M. Sparrow	394,307	Dec. 11	853	226	45	1244
Valve-controller. Thermotic	G. W. Blake	388,754	Aug. 28	2370	638	44	1048
Valve cut-off mechanism. Automatic slide	M. Wilkes	389,737	Sept. 18	1432	{ 371 372 }	44	1357
Valve. Cut-off piston	P. Armington	378,642	Feb. 28	1931	513	42	898
Valve. Cylinder relief	G. H. Corliss	388,264	Aug. 21	1662	413	41	907
Valve. Cylinder relief	W. Krauss	391,163	Oct. 16	1387	369	45	281
Valve device for hydraulic elevators	N. C. Bassett	390,111	Sept. 25	1994	532	44	1479
Valve. Engine	J. Des Brisay	390,460	Oct. 2	367	95	45	77
Valve. Engine	E. M. Hamstone	386,325	Apr. 3	26	7	43	7
Valve. Engine	G. S. Strong	385,967	July 10	932	248	44	191
Valve-facing device	C. P. Weiss	379,297	Mar. 13	634	173	42	1092
Valve for air-brakes	J. F. Carpenter	377,989	Feb. 14	975	251	42	698
Valve for air-brakes. Triple	G. B. Williams	384,009	June 5	247	71	43	1169
Valve for air-compressors	E. Hill	393,980	Dec. 4	362	97	45	1140
Valve for air-compressors	H. P. Morgan	392,054	Oct. 30	2649	720	45	549
Valve for air or steam pipes	L. P. Lawrence	392,813	Nov. 13	948	242	45	784
Valve for automatic air-brakes. Relief	C. T. Brown	389,193	Sept. 11	601	154	44	1193
Valve for elevator-spouts. Switch	J. S. Metcalf	389,589	Sept. 18	1200	314	44	1314
Valve for elevators. Safety	P. Wright	389,429	Sept. 11	951	249	44	1262
Valve for filters	A. J. West	386,677	July 24	1976	{ 521 522 }	41	410
Valve for fluid-pressure brakes	H. Guelz	390,226	Oct. 2	50	13	45	13
Valve for furnaces. Water-cooler	H. Aikin	391,448	Oct. 23	1761	476	45	365
Valve for gage-cocks and faucets	W. Christian	392,539	Nov. 6	529	133	45	696
Valve for hydraulic presses	L. Miller	386,647	July 24	1933	511	44	402
Valve for incubators. Thermostatic	M. S. Greenleaf	388,666	Aug. 28	2245	602	41	1023
Valve for multiple-cylinder engines	E. B. Benham	380,849	Apr. 10	818	222	43	170
Valve for radiators. Air	J. L. Jolig	394,860	Dec. 18	1751	454	45	1429
Valve for radiators. Air	J. P. Marsh	390,244	Oct. 2	70	19	45	17
Valve for rotary engines. Reversing	A. L. Case, Jr.	377,858	Aug. 14	986	257	44	769
Valve for rotary engines. Reversing	A. L. Case, Jr.	387,859	Aug. 14	988	{ 257 258 }	44	769
Valve for steam-heating apparatus	J. H. Sewall	392,827	Nov. 13	964	{ 247 248 }	45	787

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. ga	Vol.	Page.
Valve for steam or other engines .....	H. Mochring and A. Pilüger .....	383,406	May 22	2279	{ 605 606 }	43	975
Valve for steam-radiators. Automatic .....	H. A. Rice and S. Graham .....	379,981	Mar. 27	1676	447	42	1310
Valve for water-gages .....	W. H. Bray and C. Nickerson .....	381,609	Apr. 24	1974	519	43	419
Valve for water-gages .....	C. B. Duntou .....	383,448	May 29	2341	621	43	994
Valve for water-service pipes. Automatic .....	C. Medbury .....	384,752	July 24	2089	547	44	429
Valve-gear .....	R. M. Baily, Jr. ....	386,284	July 17	1407	371	44	288
Valve-gear .....	R. M. Baily, Jr. ....	386,285	July 17	1409	{ 371 372 }	44	289
Valve-gear .....	J. Des Brisay .....	381,678	Apr. 21	2009	{ 540 541 }	43	433
Valve-gear .....	H. R. Fay .....	375,927	Jan. 3	270	73	42	56
Valve-gear .....	D. F. Gallagher .....	376,082	Jan. 10	498	135	42	107
Valve-gear .....	K. Knott .....	379,400	Mar. 13	776	{ 209 210 }	42	1119
Valve-gear .....	E. Körting .....	388,220	Aug. 21	1698	453	41	915
Valve-gear .....	E. D. Leavitt, Jr. ....	380,328	Apr. 3	29	9, 10	43	8
Valve-gear .....	E. D. Leavitt, Jr. ....	380,329	Apr. 3	31	{ 11 12 13 }	43	8
Valve-gear .....	H. Lechtenberg .....	382,168	May 1	425	111	43	591
Valve-gear .....	R. Mackay .....	383,963	June 5	185	54	43	1156
Valve-gear .....	A. Riedler .....	395,174	Dec. 25	9253	570	45	1532
Valve-gear .....	H. F. Shaw .....	383,080	Aug. 21	1340	164	44	848
Valve-gear .....	J. W. P. Taylor .....	390,819	Oct. 9	865	220	45	177
Valve-gear .....	J. W. Thompson .....	381,596	Apr. 24	1955	515	43	416
Valve-gear .....	J. Young .....	381,747	Apr. 24	2166	567	43	457
Valve-gear. Cut-off .....	H. F. Gaskill .....	391,040	Oct. 16	1214	322	45	250
Valve-gear. Cut-off .....	G. B. Rait .....	388,304	Aug. 21	1723	460	44	919
Valve-gear for compound engines .....	W. E. Pearson .....	394,993	Dec. 25	1969	508	45	1479
Valve-gear for engines .....	J. Grime .....	389,382	Sept. 11	886	{ 231 232 }	44	1249
Valve-gear for steam-engines .....	N. T. Greene .....	389,146	Sept. 4	523	133	44	1169
Valve-gear. Releasing .....	C. A. Dixon .....	381,001	Apr. 10	1061	{ 280 281 282 }	43	214
Valve. Governor .....	W. B. Mason .....	383,427	May 22	2213	613	43	981
Valve-governor .....	F. C. and R. S. Prindle .....	389,484	Sept. 11	1036	276	44	1276
Valve. Hydrant .....	O. B. Wilson .....	381,662	Apr. 24	2045	535	43	434
Valve. Hydraulic .....	J. W. Burdwin .....	393,354	Nov. 27	1720	455	45	953
Valve. Hydraulic .....	M. B. Kirker .....	382,003	May 1	178	46	43	547
Valve. Hydraulic .....	M. B. Kirker. (Reissue) .....	10,943	July 10	1136	301	44	230
Valve. Hydraulic .....	R. L. Teed .....	379,617	Mar. 20	1109	295	42	1190
Valve-locking device .....	J. S. Hall .....	387,161	July 31	2718	713	44	556
Valve mechanism .....	E. F. Gordon .....	391,900	Oct. 30	2505	678	45	522
Valve mechanism .....	J. C. Williams .....	391,445	Oct. 23	1775	474	45	363
Valve mechanism for blowing engines, pumps, and similar apparatus. }	R. Forsyth and J. A. Potter .....	378,438	Feb. 28	1652	{ 433 434 }	42	841
Valve mechanism for engines .....	S. Wilcox .....	382,578	May 8	1009	{ 273 274 }	43	724
Valve mechanism for oscillating engines .....	W. B. Coulter .....	385,506	July 3	260	6, 67	44	53
Valve mechanism for sewerage systems .....	C. H. Shepherd .....	384,396	June 12	834	217	43	1287
Valve mechanism for sewerage systems .....	C. H. Shepherd .....	384,397	June 12	835	218	43	1288
Valve-operating device. Electric .....	F. M. Sparrow .....	394,290	Dec. 11	716	191	45	1216
Valve. Oval angular .....	H. A. Goll .....	386,461	July 24	1672	441	44	353
Valve. Oval angular .....	H. A. Goll .....	386,462	July 24	1674	442	44	353
Valve. Piston .....	T. H. Bomke .....	377,599	Feb. 7	372	95	42	566
Valve plugs, seats, &c. Machine for truing .....	D. F. Dunn .....	378,196	Feb. 21	1274	337	42	762
Valve. Pop safety .....	A. Hattersley .....	383,125	May 22	1871	489	43	900
Valve. Pressure-reducing .....	J. J. Lowden .....	391,807	Oct. 30	2284	620	45	479
Valve. Pressure-regulating .....	F. Markgraf .....	376,101	Jan. 10	527	141	42	113
Valve. Quick-motion .....	J. H. Fagan .....	392,417	Nov. 6	355	88	45	661
Valve. Reducing .....	H. McLaren .....	393,020	Nov. 20	1244	323	45	850
Valve. Regulating .....	M. O. Haldeman .....	385,619	July 3	435	112	44	85
Valve. Reversing .....	P. Maltby .....	378,604	Feb. 28	1882	498	42	888
Valve. Revolving .....	T. O. Perry .....	387,008	July 31	2494	{ 654 655 }	44	517
Valve-rods. Disconnecting device for .....	T. C. Dill .....	387,549	July 3	324	83, 84	44	65
Valve. Rotary .....	J. O'Donnell .....	381,976	June 5	202	59	43	1159
Valve. Safety .....	W. R. Fox .....	382,643	May 8	1159	298	43	741
Valve. Safety .....	J. Hughes .....	391,472	Oct. 23	1816	485	45	372
Valve. Safety .....	A. Orme .....	391,814	Oct. 30	2292	622	45	480
Valve. Safety .....	J. W. Spolders and F. X. Vien .....	392,469	Nov. 6	435	109	45	676
Valve. Self-acting air .....	D. T. Ellis .....	379,899	Mar. 20	1542	406	42	1274
Valve. Sewer .....	P. F. Lenhart .....	378,000	Feb. 28	1878	496	42	887
Valve. Slide .....	D. O. Ladd .....	377,078	Jan. 31	1966	517	42	406
Valve. Slide .....	W. A. Robinson .....	388,374	Aug. 21	1838	488	44	939
Valve. Slide .....	W. J. Thomas .....	385,431	July 3	146	39	44	30
Valve. Slow-closing tank .....	S. G. Smith .....	391,659	Oct. 23	2060	558	45	425
Valve. Steam .....	G. A. Boyden .....	394,532	Dec. 11	1180	307	45	1304
Valve. Steam .....	E. W. Cooke .....	379,684	Mar. 20	1211	320	42	1210
Valve. Steam .....	D. H. Rice .....	380,661	Apr. 3	529	{ 146 147 }	43	106
Valve. Steam-actuated .....	H. W. Bulkley .....	377,423	Feb. 7	118	25	42	517
Valve. Steam-actuated .....	D. Donald .....	393,461	Nov. 27	1875	493	45	953
Valve. Steam-actuated .....	J. H. Fogarty and F. M. Wheeler .....	380,882	Apr. 10	873	235	43	179
Valve. Steam-actuated .....	W. W. Hanscom .....	380,888	Apr. 10	887	{ 237 238 }	43	182
Valve. Steam-engine .....	W. J. Allen .....	383,935	June 5	140	40	43	1147
Valve. Steam-engine .....	F. D. Child .....	385,843	July 10	763	{ 200 201 }	44	155
Valve. Steam-engine .....	G. H. Corliss .....	388,265	Aug. 21	1663	444	44	908
Valve. Steam-engine .....	J. D. Fiske .....	383,287	May 22	2108	557	43	945

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Valve. Steam-engine.	J. Heath.	388,414	Aug. 28	1888	504	44	955
Valve. Steam-engine.	W. H. Hoffman.	380,037	Mar. 27	1763	472	42	1326
Valve. Steam-engine.	J. P. Lisk.	394,930	Dec. 18	1869	483	45	1450
Valve. Steam-engine.	J. S. Marshall.	381,152	Apr. 17	1299	317	43	270
Valve. Steam-engine.	J. B. McLatosh.	384,637	June 19	1193	315	43	1364
Valve. Steam-engine.	F. L. Smith.	382,564	May 8	1042	265	43	719
Valve. Steam-exhaust-pipe.	J. Erwood.	388,651	Aug. 28	2224	597	41	1020
Valve. Steam-feed.	L. T. Kline.	384,263	June 12	631	171	43	1252
Valve. Steam-safety.	G. E. Dixon.	393,748	Dec. 4	22	8	45	1076
Valve. Stop.	J. A. Credman.	381,055	Apr. 10	1146	306	43	230
Valve. Stop.	J. Hawthorn and S. Moorhouse.	382,469	May 8	896	229	43	688
Valve. Straight-way.	H. P. Hood.	375,872	Jan. 3	189	52	42	41
Valve. Straight-way.	H. P. Hood.	384,819	June 19	1516	395	43	1426
Valve. Straight-way.	R. Hughes.	387,164	July 31	2722	713	44	557
Valve. Straight-way stop.	H. Hall.	384,906	June 19	1500	414	43	1439
Valve. Tank.	J. Cavanagh.	393,844	Dec. 4	225	60	45	1115
Valve. Tank.	H. C. Weedon.	380,153	Mar. 27	1926	513	42	1359
Valve. Tank-supply-regulating.	P. Hansen.	382,301	May 8	634	161	43	640
Valve. Thermostatic.	C. F. Brigham.	391,017	Oct. 16	1179	313	45	212
Valve. Throttle.	C. Lozon.	378,140	Feb. 21	1202	313	42	748
Valve. Throttle.	E. W. Luce.	382,993	May 15	1640	429	43	845
Valve. Throttle and governor.	R. H. Mather.	379,280	Mar. 13	602	165	42	1086
Valve. Time.	P. G. Hubert.	393,110	Nov. 20	1364	356	45	873
Valve. Water-engine.	G. and W. Ross.	384,336	June 12	717	196	43	1271
Valves. Adjusting relief-plate wedges for slide.	D. A. Woodbury.	382,674	May 8	1209	313	43	751
Valves and other mechanisms. Device for operating	L. Schutte.	380,941	Apr. 10	962	256	43	196
Valves. Apparatus for automatically controlling the operation of pressure.	G. H. Moore.	392,218	Nov. 6	60	15, 16	45	606
Valves. Cut-off mechanism for slide.	J. H. Tangye and W. Johnson, Jr.	380,955	Apr. 10	988	261	43	201
Valves. Device for operating throttle.	R. C. McArthur.	379,318	Mar. 13	663	179	42	1096
Valves. Device for reseating.	C. P. Weiss.	379,351	Mar. 13	702	191	42	1105
Valves, &c. Operating-lever for.	W. Scott.	381,687	June 5	359	102	43	1190
Valves. Spindle-connection for.	H. R. Frisbie.	376,981	Jan. 24	1822	479	42	370
Vane. Illuminated wind.	D. Rockwell.	379,031	Mar. 6	252	71	42	1013
Vane. Windmill.	A. J. Corcoran.	384,427	June 12	878	229	43	1296
Vapor-bath. Electric.	R. P. Jackson and W. R. Pope.	380,261	Mar. 27	2070	554	42	1389
Vapor-burner.	S. Daniels.	377,548	Feb. 7	299	76, 77	42	552
Vapor-burner.	J. P. Goverts.	386,534	July 21	1785	471	44	373
Vapor-burner.	F. A. Lyman.	381,843	Apr. 24	2319	603	43	486
Vapor-burner.	F. A. Lyman.	382,652	May 8	1177	304	43	745
Vapor-burner.	E. G. Martin.	381,153	Apr. 17	1301	347	43	270
Vapor-burner.	W. Metzinger.	382,892	May 15	1503	391	43	820
Vapor-burner.	W. R. Park.	378,713	Feb. 28	2041	539	42	917
Vapor-burner.	L. E. Pierpont.	380,404	Apr. 3	144	41	41	30
Vapor-burner.	H. Ruppel.	375,957	Jan. 3	312	83	42	64
Vapor-burner.	H. Ruppel and D. E. Dangler.	380,322	Sept. 11	799	203	44	1332
Vapor-burner.	E. J. Schauer.	380,412	Sept. 11	934	245	41	1257
Vapor-burner.	C. H. Shultz.	380,356	Apr. 3	80	25	43	18
Vapor-burner.	C. M. Young.	393,050	Nov. 20	1287	334	45	859
Vapor-burner. Generating.	J. B. Wallace.	378,120	Feb. 21	1162	302	42	712
Vapor or gas. Device for regulating the quality of carbureted.	E. J. Frost.	381,619	Apr. 24	1988	522	43	422
Vapors. Apparatus for automatically generating and burning inflammable	C. A. Paquelin.	383,538	May 29	2497	659	43	1023
Vaporizer.	R. S. Sheeley.	382,836	May 15	1424	374	43	803
Vaporizer.	G. M. Sherrmann.	384,794	June 19	1422	373	43	1109
Vaporizer and burner. Hydrocarbon.	J. E. Patterson and A. Noteman.	384,068	June 5	539	95	43	1185
Vaporizer and burner. Hydrocarbon.	W. F. Steele.	387,929	Aug. 14	1111	297	44	794
Vaporizer and burner. Oil.	J. A. Cowles.	390,757	Oct. 9	730	207	45	161
Vaporizer and burner. Water and oil.	E. D. Granger.	392,510	Nov. 6	488	122	45	687
Vaporizer. Hydrocarbon-retort.	H. C. Davis.	388,813	Sept. 4	51	14	44	1082
Varnish.	E. N. Todd.	381,005	June 5	242		43	1168
Varnish for finishing wood.	L. C. Bolton.	377,797	Feb. 14	711		42	646
Varnish. Pyroxyline.	W. D. Field.	381,354	Apr. 17	1590		43	326
Varnishing wheels. Apparatus for.	E. W. Gerbracht.	382,325	Nov. 6	215	56	45	635
Vat.							
See Dye-vat. Tan-vat.							
Vault-light.	J. C. Haldeman.	376,649	Jan. 17	1330	349	42	269
Vegetable-cutter.	W. Doering.	375,806	Jan. 3	112	32	42	26
Vegetable-cutter.	A. Leibert.	381,261	Apr. 17	1454	391	43	298
Vegetable or root cutter.	E. H. Clare.	383,438	May 29	2330	619	43	991
Vegetable-slicer.	V. Bissig.	384,758	June 19	1314	351	43	1393
Vegetable slicer.	H. J. Penath.	377,909	Feb. 14	861	221	42	675
Vehicle.	C. M. Blydenburgh.	394,329	Dec. 11	888	234	45	1251
Vehicle.	W. S. Forsyth.	310,661	Oct. 9	644	172	45	136
Vehicle.	M. F. Goodrich.	388,468	Aug. 28	1881	502	44	954
Vehicle.	J. G. Kenyon.	392,866	Nov. 13	1021	261	45	800
Vehicle.	J. R. Parsons and D. A. Willcox.	391,640	Oct. 23	2036	551	45	419
Vehicle.	H. C. Swan.	391,493	Oct. 23	1843	493	45	378
Vehicle.	W. H. Weston.	387,838	Aug. 14	960	249	44	764
Vehicle bolster-spring.	E. Cliff.	376,857	Jan. 24	1659	433	42	338
Vehicle bolster-spring.	G. H. Jackson and J. Harvey.	385,630	July 3	448	116	44	87
Vehicle bolster-spring.	J. W. Wetmore.	389,034	Sept. 4	331	87	44	1135
Vehicle-brake.	A. C. T. Bantaine.	394,436	Dec. 11	1041	272	45	1279

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Vehicle-brake.....	D. E. Bowling and F. O. Barnes.....	382,586	May 8	1081	278	43	726
Vehicle-brake.....	J. Des Georges.....	390,116	Sept. 25	2005	531	44	1480
Vehicle-brake.....	J. Fasnacht.....	395,126	Dec. 25	2173	560	45	1518
Vehicle-brake.....	C. Fuller.....	391,741	Oct. 23	2172	5-7	45	446
Vehicle-brake.....	O. Kirlin.....	393,476	Nov. 27	1912	500 } 501 }	45	988
Vehicle-brake.....	A. W. Lane.....	386,595	July 21	1863	492	44	388
Vehicle-brake.....	W. F. Rochester.....	393,394	Nov. 27	1779	470	45	964
Vehicle-brake.....	T. J. Timmons.....	380,365	Apr. 3	91	28	43	20
Vehicle-brake. Automatic.....	L. E. Van Antwerp and M. L. Norton.....	387,022	July 31	2510	660	44	520
Vehicle. Caterer's.....	J. F. Baldwin.....	377,594	Feb. 7	360	92, 93	42	564
Vehicle chafe-iron.....	C. C. Larrabee.....	391,623	Oct. 23	2014	545	45	414
Vehicle. Child's.....	F. Grefl.....	383,948	June 5	157	46	43	1150
Vehicle. Combined runner and wheeled.....	L. Novotny.....	393,076	Nov. 20	1316	343 } 344 }	45	864
Vehicle. Convertible.....	W. H. Yates.....	381,663	Apr. 24	2046	536	43	434
Vehicle-coupling.....	C. M. Parker.....	378,714	Feb. 28	2049	539	42	917
Vehicle-coupling.....	G. F. Smith and W. H. Warren.....	392,467	Nov. 6	433	109	45	676
Vehicle dash-screen.....	J. H. Murphy.....	381,997	June 26	1723	447	43	1475
Vehicle-dashers. Manufacturing.....	W. C. Reynolds and J. Smith.....	380,134	Mar. 27	1903	508	42	1354
Vehicle. Electrically-propelled.....	W. H. Knight.....	382,990	May 15	1637	429	43	844
Vehicle. Electrically-propelled.....	W. H. Knight.....	389,229	Sept. 11	658	169	44	1204
Vehicle. Electro-magnetically propelled.....	W. L. Stevens.....	394,735	Dec. 18	1526	400 } 401 }	45	1386
Vehicle. Engine-driven.....	G. Daimler.....	376,638	Jan. 17	1314	344 } 345 }	42	265
Vehicle-elevator.....	A. G. Brown.....	379,932	Mar. 27	1609	427 } 428 }	42	1297
Vehicle-gear.....	J. N. Brown.....	391,684	Oct. 23	2091	567	45	430
Vehicle-gear.....	H. Clark.....	377,190	Jan. 31	2114	558	42	437
Vehicle-gear.....	J. E. Goodwin.....	391,311	Oct. 16	1588	421	45	320
Vehicle-gear.....	M. B. Ring and J. I. Lavoie.....	377,211	Jan. 31	2151	568	42	443
Vehicle-gear.....	H. C. Swan.....	388,380	Aug. 21	1846	490	44	940
Vehicle-gear-iron.....	R. Mullholland.....	375,765	Jan. 3	50	18	42	16
Vehicle-gear-iron.....	H. C. Swan.....	381,181	Apr. 17	1338	357	43	276
Vehicle. Horse-breaking.....	E. Herrington.....	378,837	Feb. 28	2237	596	42	955
Vehicle-jack. Adjustable.....	L. B. Gifford.....	378,001	Feb. 14	997	260	42	701
Vehicle. Jump-seat.....	C. H. Stratton.....	385,329	June 26	2216	575 } 576 }	43	1580
Vehicle. Passenger.....	F. B. Brownell.....	380,617	Apr. 3	468	132	43	95
Vehicle. Passenger.....	R. A. Morse.....	380,812	Apr. 10	763	209	43	160
Vehicle-reach.....	T. G. Mandt.....	390,874	Oct. 9	939	248	45	190
Vehicle reach-bar.....	H. M. Hughes.....	388,363	Aug. 21	1820	483	44	936
Vehicle reach-coupling.....	E. S. Cushiman.....	387,152	July 31	2706	709	44	554
Vehicle reach coupling.....	S. M. Wier.....	380,541	Apr. 3	351	101	43	72
Vehicle. Road.....	M. M. Conger.....	388,763	Aug. 28	2382	643	44	1050
Vehicle running-gear.....	C. A. Behlen.....	380,078	Mar. 27	1827	486	42	1339
Vehicle running-gear.....	J. J. Black.....	392,712	Nov. 13	728	199	45	753
Vehicle running-gear.....	N. H. and J. H. Bloem.....	382,406	May 8	794	202	43	670
Vehicle running-gear.....	A. Beck.....	388,524	Aug. 28	2036	548	44	985
Vehicle running-gear.....	E. H. Booth.....	377,666	Feb. 7	476	123	42	585
Vehicle running-gear.....	G. A. Bowen.....	381,981	May 1	134	32	43	539
Vehicle running-gear.....	S. Burdall.....	382,636	May 8	1151	297	43	739
Vehicle running-gear.....	C. C. Caner.....	376,510	Jan. 17	1116	292	42	228
Vehicle running-gear.....	W. H. Chafey and D. A. Willcox.....	375,741	July 10	618	161 } 162 }	44	128
Vehicle running-gear.....	G. E. Crutchfield.....	392,786	Nov. 13	911	233	45	776
Vehicle running-gear.....	F. Dunce.....	389,798	Sept. 18	1515	400	44	1376
Vehicle running-gear.....	J. G. Eiken.....	388,959	Sept. 4	226	60	44	1115
Vehicle running-gear.....	P. Emery.....	376,079	Jan. 10	495	134	42	107
Vehicle running-gear.....	J. Jackson.....	377,260	Jan. 31	2226	589	42	456
Vehicle running-gear.....	A. W. Johnson.....	384,366	June 12	796	208	43	1279
Vehicle running-gear.....	F. Kopplin and P. Brennan.....	389,908	Sept. 25	1774	470 } 471 }	44	1434
Vehicle running-gear.....	G. W. Lee.....	381,146	Apr. 17	1293	345	43	268
Vehicle running-gear.....	T. G. Mandt.....	370,213	Mar. 27	2008	537	42	1375
Vehicle running-gear.....	T. G. Mandt.....	399,872	Oct. 9	936	217	45	190
Vehicle running-gear.....	T. C. Munz.....	383,409	May 22	2285	606 } 607 }	43	976
Vehicle running-gear.....	S. S. Schaff.....	394,514	Dec. 11	1203	313	45	1308
Vehicle running-gear.....	J. Tilton.....	395,191	Dec. 35	2281	585	45	1536
Vehicle running-gear.....	H. Warrington and B. Bulger.....	376,219	Jan. 10	703	187	42	115
Vehicle-seat.....	C. M. Blydenburgh.....	380,170	Mar. 27	1947	319 } 320 }	42	1363
Vehicle-seat.....	S. B. Irwin.....	376,887	Jan. 24	1699	444	42	347
Vehicle-seat.....	J. M. Perkins.....	388,441	Aug. 28	1925	514	41	963
Vehicle-seat.....	C. W. and R. B. Robison.....	380,603	Apr. 3	534	147	43	107
Vehicle-seat lock.....	R. Cameron.....	390,838	Oct. 9	896	237	45	182
Vehicle-seat. Shifting.....	F. Rightmeyer.....	389,597	Sept. 18	1218	319	44	1317
Vehicle-seat spring.....	J. W. Wetmore.....	389,633	Sept. 4	333	87	44	1135
Vehicle. Self-propelling.....	C. Benz.....	385,087	June 26	1877	479 } 480 }	43	1506
Vehicle. Side-bar.....	O. Heingelman.....	377,382	Feb. 7	25	8	42	499
Vehicle. Side-bar.....	E. D. Olin.....	387,987	Aug. 14	1195	324	41	809
Vehicle. Side-bar.....	J. Stuart.....	392,572	Nov. 6	575	145	45	705
Vehicle. Spring.....	A. Bink.....	376,425	Jan. 17	993	260	42	205
Vehicle. Spring.....	E. Cliff.....	386,625	July 24	1900	502	44	397
Vehicle. Spring.....	E. Cliff.....	387,052	July 31	2544	669	44	527
Vehicle. Spring.....	C. Harrigan.....	380,032	Mar. 27	1756	471	42	1325
Vehicle. Spring.....	J. G. and L. H. Huff.....	376,957	Jan. 21	1792	471	42	365
Vehicle. Spring.....	H. W. Pell.....	378,145	Feb. 21	1209	314 } 315 }	42	749
Vehicle. Spring.....	A. Schubert.....	378,180	Feb. 21	1255	331	42	758

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Vehicle. Spring.	E. Storm.	382,443	May 8	851	217	43	681
Vehicle. Spring.	T. L. Startevant.	385,019	June 26	1767	457	43	1485
Vehicle-spring.	C. M. Blydenburgh.	380,169	Mar. 27	1946	519	42	1363
Vehicle-spring.	C. M. Blydenburgh.	383,339	May 22	2172	574	43	957
Vehicle-spring.	A. Clark.	393,297	Nov. 20	1635	431	45	927
Vehicle-spring.	D. P. Clark.	392,408	Nov. 6	347	85	45	660
Vehicle-spring.	E. Clift.	379,366	Mar. 13	731	200	42	1110
Vehicle-spring.	E. Clift.	382,137	May 1	383	100	43	583
Vehicle-spring.	R. Crocker and J. Diehl.	379,763	Mar. 20	1322	353	42	1232
Vehicle-spring.	W. M. Eccles.	387,677	Aug. 14	732	188	41	720
Vehicle-spring.	W. M. Eccles.	388,769	Aug. 28	2395	646	44	1032
Vehicle-spring.	J. England.	378,244	Feb. 21	1358	358		
Vehicle-spring.	G. W. Farrell.	389,923	Sept. 25	1722	455	44	1423
Vehicle-spring.	A. C. Fish.	378,300	Feb. 21	1444	376	42	792
Vehicle-spring.	A. Gilbert and Z. T. Bush.	390,659	Oct. 9	641	171	45	136
Vehicle-spring.	G. B. Hamlin.	390,669	Oct. 9	652	175	45	138
Vehicle-spring.	R. Hitchcock.	380,390	Apr. 3	125	37	43	27
Vehicle-spring.	M. P. Holmes.	389,512	Sept. 11	1073	285	44	1283
Vehicle-spring.	E. Jarrell.	379,168	Mar. 6	435	123	42	1049
Vehicle-spring.	E. Jarrell.	379,470	Mar. 13	882	237	42	1140
Vehicle-spring.	E. Jarrell.	390,372	Oct. 2	241	66	45	51
Vehicle-spring.	J. R. Locke.	376,442	Jan. 17	1016	267	42	210
Vehicle-spring.	C. P. Manee and E. J. Palmer.	379,234	Mar. 13	540	150	42	1074
Vehicle-spring.	R. Mulholland.	384,381	June 12	818	212	43	1284
Vehicle-spring.	H. A. Myers.	376,104	Jan. 10	531	141	42	113
Vehicle-spring.	E. L. Norfolk.	393,171	Nov. 20	1446	377	45	890
Vehicle-spring.	L. Pentz.	375,831	Jan. 3	140	41	42	33
Vehicle-spring.	L. Pentz.	390,250	Oct. 2	79	22	45	19
Vehicle-spring.	W. C. Perry.	384,781	June 19	1401	366	43	1405
Vehicle-spring.	S. H. Raymond.	376,161	Jan. 10	624	167	42	130
Vehicle-spring.	S. H. Raymond.	394,393	Dec. 11	985	258	45	1269
Vehicle-spring.	C. W. Saladeo.	376,755	Jan. 24	1488	392	42	398
Vehicle-spring.	A. Schubert.	388,587	Aug. 28	2130	572	44	1003
Vehicle-spring.	E. B. Smith.	389,609	Sept. 18	1234	322	41	1319
Vehicle-spring.	E. Storm.	375,902	Jan. 3	231	63		
Vehicle-spring.	E. Storm.	377,584	Feb. 7	345	89	42	562
Vehicle-spring.	M. R. Strunk.	390,625	Oct. 2	590	156	45	119
Vehicle-spring.	J. W. Sullivan.	376,614	Jan. 17	1268	332	42	257
Vehicle-spring.	H. C. Swan.	377,817	Feb. 14	733	185	42	649
Vehicle-spring.	H. C. Swan.	377,818	Feb. 14	734	186	42	649
Vehicle-spring.	H. C. Swan.	393,795	Dec. 4	86	24	45	1089
Vehicle-spring.	H. C. Swan.	393,796	Dec. 4	87	25	45	1089
Vehicle-spring.	J. W. Wetmore.	389,035	Sept. 4	335	88	44	1136
Vehicle-spring.	P. H. Whiting.	385,334	June 26	2255	577	43	1581
Vehicle-spring.	W. H. Winter and H. Duffey.	382,630	May 8	1141	294	43	738
Vehicle-spring and gear.	E. F. Morse.	383,974	June 5	199	78	43	1158
Vehicle-spring attachment.	R. H. Davis.	390,573	Oct. 2	529	139	45	106
Vehicle-spring attachment.	G. B. Hamlin.	390,856	Oct. 9	918	242	45	186
Vehicle-spring attachment.	M. V. B. Waldorf.	394,621	Dec. 18	1348	352	45	1349
Vehicle-spring-gear.	G. E. Bartholomew.	383,850	June 5	5	2	43	1122
Vehicle-spring-gear.	J. A. Chapman.	392,184	Nov. 6	13	4	45	597
Vehicle-spring-gear.	A. L. Pierce and G. McKeon.	392,063	Oct. 30	2658	792	45	551
Vehicle-spring hanger.	A. Schubert.	388,588	Aug. 28	2131	572	44	1003
Vehicle-spring shackle.	J. J. Sullivan.	390,917	Oct. 9	1006	263	45	203
Vehicle-spring. Side-bar.	G. W. Harris.	393,759	Dec. 4	38	12	45	1079
Vehicle-spring support.	J. S. Cochemour.	381,111	Apr. 17	1248	335	43	259
Vehicle-steps. Scraper attachment for.	O. Zistel.	384,665	June 19	1235	326	43	1372
Vehicle-top.	T. B. McCurdy.	381,630	Apr. 24	2002	525	43	424
Vehicle-top.	L. C. Shipley.	389,767	Sept. 18	1469	385	44	1366
Vehicle-top.	A. Woeb.	394,804	Dec. 18	1651	432	45	1411
Vehicle-top curtain.	J. H. Shaubach.	388,591	Aug. 28	2135	573	44	1004
Vehicle-top-prop joint.	J. G. Parsons.	382,662	May 8	1190	309	43	747
Vehicle-transporter.	V. Gustafson.	379,011	Mar. 6	220	59	42	1008
Vehicle. Two-wheeled.	W. B. Altick.	395,027	Dec. 25	2015	520	45	1488
Vehicle. Two-wheeled.	J. P. Barker.	394,751	Dec. 18	1553	406	45	1391
Vehicle. Two-wheeled.	J. R. Bartruff.	388,107	Aug. 21	1393	371	44	855
Vehicle. Two-wheeled.	E. W. Baxter.	395,114	Dec. 25	2154	536	45	1515
Vehicle. Two-wheeled.	C. S. Beebe.	394,050	Dec. 4	463	125	45	1160
Vehicle. Two-wheeled.	G. Beebe.	383,207	May 22	1984	521	43	923
Vehicle. Two-wheeled.	E. W. Bowne.	379,675	Mar. 20	1194	316	42	1206
Vehicle. Two-wheeled.	K. A. Brigham.	380,741	Apr. 19	661	182	43	141
Vehicle. Two-wheeled.	W. N. Eryan.	378,493	Feb. 23	1730	456	42	858
Vehicle. Two-wheeled.	J. W. Butts.	386,107	July 17	1143	304		
Vehicle. Two-wheeled.	J. P. Callan.	381,758	Apr. 24	2181	570	44	459
Vehicle. Two-wheeled.	J. H. Cloyes.	377,849	Feb. 14	773	198	42	657
Vehicle. Two-wheeled.	J. H. Cloyes and E. B. Gray.	377,848	Feb. 14	773	197	42	657
Vehicle. Two-wheeled.	J. W. Coates.	394,060	Dec. 4	479	128	45	1163
Vehicle. Two-wheeled.	J. W. Coates.	394,061	Dec. 4	480	128	45	1163
Vehicle. Two-wheeled.	M. M. Conner.	388,834	Sept. 4	36	11	41	1079
Vehicle. Two-wheeled.	C. H. Eggleston.	379,211	Mar. 13	513	144	42	1069
Vehicle. Two-wheeled.	C. A. Ellison.	391,235	Oct. 16	1483	394	45	301
Vehicle. Two-wheeled.	O. B. Fysh.	379,059	Mar. 6	289	84	42	1020
Vehicle. Two-wheeled.	F. W. Gay.	386,311	July 17	1144	382	44	295
Vehicle. Two-wheeled.	P. Glaszer.	387,350	Aug. 7	224	59	44	611
Vehicle. Two-wheeled.	B. J. Healy.	378,447	Feb. 28	1665	437	42	843
Vehicle. Two-wheeled.	W. Holloway.	393,234	Nov. 20	1541	403	45	909
Vehicle. Two-wheeled.	H. G. M. Howard.	381,927	May 1	39	11	43	523
Vehicle. Two-wheeled.	C. W. and G. H. Jewett.	378,791	Feb. 23	2142	566	42	917
Vehicle. Two-wheeled.	H. W. Jones.	383,229	May 22	2016	529	43	929
Vehicle. Two-wheeled.	A. J. Kellogg.	393,836	Dec. 4	148	40	45	1100
Vehicle. Two-wheeled.	W. H. Knapp.	377,718	Feb. 7	551	140	42	598
Vehicle. Two-wheeled.	W. Lawless.	381,705	Apr. 21	2110	552	43	446

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Vehicle. Two-wheeled.....	F. B. Lay.....	388,291	Aug. 21	1699	453	44	915
Vehicle. Two-wheeled.....	F. B. Lay.....	388,292	Aug. 21	1700	453	44	915
Vehicle. Two-wheeled.....	J. W. Leek.....	393,989	Dec. 4	374	101	45	1143
Vehicle. Two-wheeled.....	H. Malmberg.....	382,175	May 1	436	113 114	43	593
Vehicle. Two-wheeled.....	W. H. Morlock and R. A. Haegelin.	385,720	July 10	581	150	41	120
Vehicle. Two-wheeled.....	H. A. Moyer.....	378,057	Feb. 14	1066	279	42	715
Vehicle. Two-wheeled.....	J. A. Odell.....	386,893	July 31	2326	611	41	483
Vehicle. Two-wheeled.....	H. K. Olmsted.....	376,962	Jan. 24	1796	472	42	366
Vehicle. Two-wheeled.....	W. A. Paterson.....	379,599	Mar. 20	1084	288	42	1185
Vehicle. Two-wheeled.....	D. S. Pembroke.....	378,335	Feb. 21	1493	390	42	801
Vehicle. Two-wheeled.....	D. S. Pembroke. (Reissue).....	10,962	Oct. 9	1154	305	45	232
Vehicle. Two-wheeled.....	J. W. Phillips and F. C. Staley.....	386,494	July 24	1714	453	41	361
Vehicle. Two-wheeled.....	L. Raeger.....	379,723	Mar. 20	1268	338	42	1222
Vehicle. Two-wheeled.....	B. F. Rix.....	376,486	Jan. 17	1075	282	42	221
Vehicle. Two-wheeled.....	G. W. Saunders.....	390,313	Oct. 2	153	43	45	34
Vehicle. Two-wheeled.....	A. F. Shuler.....	394,515	Dec. 11	1152	299 300	45	1299
Vehicle. Two-wheeled.....	H. H. Smith.....	376,992	Jan. 21	1835	483	42	373
Vehicle. Two-wheeled.....	J. A. Sneed.....	387,322	Aug. 7	187	49	44	607
Vehicle. Two-wheeled.....	C. C. Spencer.....	382,839	May 15	1427	375	43	804
Vehicle. Two-wheeled.....	J. H. Talmadge.....	392,237	Nov. 6	87	21	45	611
Vehicle. Two-wheeled.....	J. W. Vernick.....	388,603	Aug. 28	2154	578	41	1008
Vehicle. Two-wheeled.....	A. Warner and J. J. D. Scoles.....	381,448	Apr. 17	1735	463 464	43	354
Vehicle. Two-wheeled.....	R. Westphal.....	394,041	Dec. 4	449	120	45	1157
Vehicle-wheel.....	H. A. Arnold.....	387,551	Aug. 7	545	139	41	675
Vehicle-wheel.....	H. S. Bailey.....	380,012	Mar. 27	1728	464	42	1320
Vehicle-wheel.....	J. Blais.....	380,852	Apr. 10	823	223	43	170
Vehicle-wheel.....	G. E. Broyles.....	384,189	June 5	515	140	43	1921
Vehicle-wheel.....	H. W. Carroll.....	389,490	Sept. 11	1855	280	44	1380
Vehicle-wheel.....	L. H. Donkel.....	384,135	June 5	435	121	43	1205
Vehicle-wheel.....	J. E. Fisher.....	390,762	Oct. 9	786	209	45	163
Vehicle-wheel.....	P. Gendron.....	382,356	May 8	723	182	43	656
Vehicle-wheel.....	G. M. Hughes.....	378,961	Mar. 6	139	40	42	993
Vehicle-wheel.....	T. B. Jeffery.....	383,129	May 22	1877	490	43	901
Vehicle-wheel.....	T. B. Jeffery.....	383,130	May 22	1878	490	43	961
Vehicle-wheel.....	W. Knight.....	375,940	Jan. 3	292	78	42	60
Vehicle-wheel.....	H. G. Lane.....	387,685	Aug. 14	745	191	44	722
Vehicle-wheel.....	H. J. Lawrence.....	379,315	Mar. 13	659	178	42	1096
Vehicle-wheel.....	A. R. Miller.....	391,377	Oct. 16	1682	445	45	337
Vehicle-wheel.....	G. Olsen.....	394,718	Dec. 18	1494	390	45	1378
Vehicle-wheel.....	A. H. Overman.....	388,068	Aug. 21	1327	358	41	844
Vehicle-wheel.....	S. Puffer.....	381,509	Apr. 17	1826	423	43	372
Vehicle-wheel.....	C. A. Reade.....	381,722	Apr. 24	2135	559	43	471
Vehicle-wheel.....	H. M. Rice and J. O'Day.....	392,756	Nov. 13	853	219	45	766
Vehicle-wheel.....	G. L. H. Schneidewind.....	376,969	Jan. 24	1803	475	42	367
Vehicle-wheel.....	E. A. Seale and W. W. Downing.....	375,775	Jan. 3	72	22	42	18
Vehicle-wheel.....	H. L. Smith.....	381,398	June 12	837	218	43	1288
Vehicle-wheel.....	C. H. Straight.....	391,987	Oct. 30	2544	688	45	530
Vehicle-wheel.....	J. V. Stribling.....	384,650	June 19	1208	319	43	1367
Vehicle-wheel.....	J. K. Van Pelt.....	381,482	June 12	949	246	43	1309
Vehicle-wheel scraper.....	J. Sparrow.....	388,378	Aug. 21	1814	490	44	940
Vehicle-wheels. Guard-rail for.....	J. C. Tatman.....	376,963	Jan. 3	324	87	42	67
Vehicle-wheels. Means for repairing.....	L. Miller, J. Erskine, and M. L. Wright.....	377,952	Feb. 14	926	240	42	688
Vehicle-wrench.....	E. W. Hemans and E. C. Thayer.....	393,903	Dec. 4	254	69	45	1120
Vehicles. Adjustable step for.....	P. J. Gregory.....	388,861	Sept. 4	82	22	44	1088
Vehicles and motors. Apparatus for increasing the traction of.....	E. E. Ries.....	379,815	Mar. 20	1412	376	42	1250
Vehicles. Apparatus for stopping and starting.....	J. J. Hooker, H. Lescher, and R. G. Schwarz.....	388,973	Sept. 4	248	66	44	1119
Vehicles. Boot-frame for.....	F. E. Roberts.....	380,933	Apr. 10	952	253	43	194
Vehicles by electricity. Propelling.....	C. A. Farnre.....	383,561	May 29	2525	606	43	1028
Vehicles. Device for loading.....	W. B. Dolsen.....	383,636	May 29	2622	694	43	1049
Vehicles. Drag-brake for.....	G. E. Haviland.....	389,301	Sept. 11	777	197	44	1227
Vehicles. Driving-gear for electro-magnetically-propelled.....	W. L. Stevens.....	394,734	Dec. 18	1521	398 399 400	45	1385
Vehicles. Endless platway for wheeled.....	H. G. Tipping.....	384,797	June 19	1425	373	43	1110
Vehicles. Fare-indicating device for.....	W. F. Nedler.....	383,758	May 29	2809	739 740	43	1087
Vehicles. Head-gear for.....	J. C. Kelley.....	395,237	Dec. 25	2362	604	45	1550
Vehicles. Lug-bar for spring.....	E. H. Booth.....	377,985	Feb. 14	971	253	42	697
Vehicles. Motor-box for electric.....	W. H. Knight.....	389,230	Sept. 11	660	169	44	1205
Vehicles. Platform-spring for.....	S. R. Gardner.....	394,686	Dec. 18	1452	379	45	1370
Vehicles. Runner for wheeled.....	R. E. Lee.....	391,626	Oct. 23	2018	545	45	415
Vehicles. Shifting seat for.....	E. H. Bates.....	388,391	Aug. 28	1861	496 497	44	950
Vehicles. Spring-compler for.....	F. Bacon.....	381,900	May 1	5	2	43	515
Vehicles. Spring-gear for.....	J. Steele.....	379,999	Mar. 27	1702	455	42	1316
Vehicles. Spring-seat for.....	L. Warren.....	385,033	June 26	1792	462	43	1489
Vehicles, &c. Spring-starter for.....	R. I. Skiles.....	395,297	Dec. 25	2441	627	45	1566
Vehicles. Sunshade attachment for.....	E. E. Dutton.....	378,829	Feb. 28	2225	501 502	42	953
Velocipede.....	H. Baines.....	390,641	Oct. 9	616	165	45	131
Velocipede.....	G. J. Chapman.....	391,882	Oct. 30	2390	648	45	500
Velocipede.....	M. A. Cherry.....	382,351	May 8	715	181	43	655
Velocipede.....	W. Clegg.....	389,200	Sept. 11	610	156	44	1194
Velocipede.....	J. S. Copeland.....	385,847	July 10	768	202 203 204	44	156
Velocipede.....	J. S. Copeland.....	391,947	Oct. 30	2484	672 673	45	518
Velocipede.....	L. H. Donkel.....	384,134	June 5	434	120	43	1204



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Velocipede.....	C. E. Duryea.....	387,631	Aug. 14	663	172	44	706
Velocipede.....	J. E. Evans.....	385,258	June 26	2131	544	43	1558
Velocipede.....	T. L. Goble.....	390,662	Oct. 9	645	172	45	136
Velocipede.....	C. H. Goodsell.....	377,610	Feb. 7	390	99	42	569
Velocipede.....	C. H. Goodsell.....	384,150	June 5	456	136	43	1209
Velocipede.....	C. F. Hadley.....	383,350	July 3	15	5, 6	41	5
Velocipede.....	J. Hagan.....	390,017	Sept. 25	1845	489	41	1448
Velocipede.....	J. W. Hall.....	391,895	Oct. 30	2410	652	45	503
Velocipede.....	H. B. Hart.....	385,620	July 3	436	112	44	85
Velocipede.....	H. E. House.....	388,043	Aug. 21	1289	349	44	836
Velocipede.....	G. Illston.....	383,396	May 22	2262	601 602	43	972
Velocipede.....	T. B. Jeffery.....	379,276	Mar. 13	595	164	42	1084
Velocipede.....	T. B. Jeffery.....	383,131	May 22	1880	491	43	902
Velocipede.....	T. B. Jeffery.....	395,147	Dec. 25	2211	568	45	1525
Velocipede.....	I. Johnson.....	379,224	Mar. 13	528	148	42	1072
Velocipede.....	I. Johnson and A. Fytberg.....	388,048	Aug. 21	1296	350	44	837
Velocipede.....	I. Johnson and O. Hanson.....	388,047	Aug. 21	1294	350	44	837
Velocipede.....	I. Johnson and R. T. Torkelson.....	379,228	Mar. 13	533	149	42	1073
Velocipede.....	A. Jørgensen.....	387,166	July 31	2727	716	44	558
Velocipede.....	G. Kibbe.....	386,990	July 31	2466	648	44	511
Velocipede.....	W. P. Kidder.....	375,755	Jan. 3	49	15	42	13
Velocipede.....	R. B. Lambert.....	390,174	Sept. 25	2087	556 557	44	1498
Velocipede.....	E. G. Latta.....	377,204	Jan. 31	2140	565 566	42	441
Velocipede.....	E. G. Latta.....	377,566	Feb. 7	322	82, 83	42	557
Velocipede.....	E. G. Latta.....	377,900	Feb. 14	847	216	42	671
Velocipede.....	E. G. Latta.....	378,253	Feb. 21	1375	360 361	42	779
Velocipede.....	E. G. Latta.....	378,693	Feb. 28	2015	532	42	913
Velocipede.....	E. G. Latta.....	379,017	Mar. 6	232	66	42	1010
Velocipede.....	E. G. Latta.....	380,495	Apr. 3	273	75, 76	43	56
Velocipede.....	E. G. Latta.....	387,979	Aug. 14	1184	322	44	807
Velocipede.....	E. G. Latta.....	391,253	Oct. 16	1505	400	45	305
Velocipede.....	E. G. Latta.....	391,900	Oct. 30	2416	654	45	504
Velocipede.....	E. G. Latta.....	392,349	Nov. 6	256	65, 66	45	643
Velocipede.....	A. H. Lucas.....	391,417	Oct. 23	1735	463	45	356
Velocipede.....	J. M. Marlin.....	388,427	Aug. 28	1904	509	44	958
Velocipede.....	M. H. Marlin.....	384,990	June 26	1711	444	43	1472
Velocipede.....	M. A. Norton.....	393,387	Nov. 27	1770	469	45	963
Velocipede.....	W. T. Osborne and J. Johnson.....	391,333	Oct. 16	1614	427	45	325
Velocipede.....	A. H. Overman.....	381,274	Apr. 17	1472	396	43	302
Velocipede.....	R. A. Perret.....	390,897	Oct. 9	974	256	45	197
Velocipede.....	H. M. Pope.....	379,907	Mar. 20	1568	413	42	1279
Velocipede.....	T. Redman.....	385,136	June 26	1948	498	43	1521
Velocipede.....	P. L. C. F. Renouf and I. W. Boothroyd.....	379,812	Mar. 20	1407	375	42	1250
Velocipede.....	D. H. Rice.....	388,416	Aug. 28	1932	516	44	964
Velocipede.....	R. J. Rombauer.....	389,855	Sept. 18	1611	425 426	44	1394
Velocipede.....	F. Ronk.....	384,643	June 19	1199	317	43	1365
Velocipede.....	J. Schemmel.....	381,956	May 1	81	20	43	530
Velocipede.....	W. Schroeter.....	379,290	Mar. 13	621	169 170	42	1089
Velocipede.....	G. Singer and R. H. Lea.....	382,837	May 15	1425	374	43	803
Velocipede.....	G. Staebler.....	394,890	Dec. 18	1792	465	45	1437
Velocipede.....	R. Steel.....	376,051	Jan. 3	452	120	42	90
Velocipede.....	J. F. Steffa.....	375,961	Jan. 3	319	85, 86	42	66
Velocipede.....	C. F. Stillman.....	377,669	Feb. 14	800	204	42	662
Velocipede.....	C. F. Stillman.....	381,038	Apr. 10	1118	299	43	226
Velocipede.....	A. M. Stoner.....	378,631	Feb. 28	1921	509	42	895
Velocipede.....	H. Thresher.....	387,700	Aug. 14	765	195	44	725
Velocipede.....	R. T. Torkelson.....	379,258	Mar. 13	570	158	42	1079
Velocipede.....	R. T. Torkelson.....	391,210	Oct. 16	1448	387	45	295
Velocipede.....	O. Unzicker.....	393,044	Nov. 20	1280	331 332	45	857
Velocipede.....	G. T. Warwick.....	384,945	June 19	1642	426 427	43	1450
Velocipede.....	G. T. Warwick.....	384,946	June 19	1645	427 428	43	1450
Velocipede.....	E. Weeks.....	391,100	Oct. 16	1302	347	45	266
Velocipede.....	L. Wheelock.....	390,733	Oct. 9	745	195	45	155
Velocipede.....	F. M. Wolf.....	391,499	Oct. 23	1848	495	45	379
Velocipede-boat.....	F. J. and W. H. Ross.....	380,321	Mar. 27	2018	540	42	1377
Velocipede-brake.....	P. D. Hedderwick.....	393,230	Nov. 20	1534	402	45	908
Velocipede-brake.....	A. H. Overman and C. F. Hadley.....	385,370	July 3	46	14	44	44
Velocipede-crank.....	J. Harrison.....	381,547	Apr. 24	1884	497	43	401
Velocipede-handle.....	H. D. Hedger.....	379,955	Mar. 27	1638	436	42	1303
Velocipede-handle.....	T. B. Jeffery.....	385,715	July 10	574	149	44	119
Velocipede-ice.....	G. B. M. Ribble and C. C. Spencer.....	387,814	Aug. 14	924	239	44	757
Velocipede-ice.....	P. A. Snyder.....	394,409	Dec. 11	1003	263	45	1272
Velocipede, Locomotive.....	B. W. Annin.....	382,311	May 8	645	164 165	43	642
Velocipede, Railway.....	C. L. Collier.....	376,073	Jan. 10	488	132	42	105
Velocipede saddle.....	L. Bondreau.....	385,403	July 3	99	27	44	21
Velocipede-saddle.....	W. L. Fish.....	385,606	July 3	410	105	44	80
Velocipede-saddle.....	A. L. Garford.....	388,484	Aug. 28	1985	533	44	975
Velocipede-saddle.....	J. Knous.....	382,430	May 8	827	212	43	676
Velocipede-saddle.....	E. G. Latta.....	376,322	Jan. 10	842	222	42	170
Velocipede-saddle.....	E. G. Latta.....	376,662	Jan. 17	1348	354	42	272
Velocipede-saddle.....	E. G. Latta.....	376,892	Jan. 24	1703	445	42	347
Velocipede-saddle.....	G. Salter and J. Walker.....	381,473	June 12	935	243	43	1307
Velocipede-seat.....	T. B. Jeffery.....	384,980	June 26	1694	440	43	1469

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g	Vol.	Page.
Velocipede-seat .....	H. M. Pope .....	381,165	Apr. 17	1321	353	43	273
Velocipede. Snow- .....	C. M. Kühr .....	393,071	Nov. 20	1311	342	45	863
Velocipede-step .....	G. H. Day .....	388,480	Aug. 28	1979	531	44	974
Velocipede-treadle .....	R. T. Torkelson .....	391,212	Oct. 16	1451	388	45	295
Velocipede-wheel .....	E. G. Latta .....	382,885	May 15	1493	391	43	818
Velocipedes. Adjustable crank for .....	F. L. Rödel .....	386,896	July 31	2329	612	44	483
Velocipedes. Adjustable crank for .....	F. L. Roedel .....	394,135	Dec. 4	584	157	45	1183
Velocipedes. Driving-gear for .....	C. Benz .....	386,798	July 31	2161	568 569 570	44	454
Velocipedes. Handle-bar for .....	G. Haynes, Jr .....	392,557	Nov. 6	555	140	45	701
Velocities of rotating mechanism. Apparatus for varying the .....	W. W. Beaumont .....	377,598	Feb. 7	368	95	42	566
Vending apparatus .....	H. Bailey .....	394,904	Dec. 18	1826	473	45	1442
Vending apparatus .....	H. Gates .....	393,149	Nov. 20	1418	370	45	884
Vending apparatus .....	R. Marelle .....	381,397	Apr. 17	1650	440	43	338
Vending apparatus .....	O. Schiess .....	381,428	Apr. 17	1696	455	43	347
Vending apparatus .....	D. W. Shiek .....	385,575	July 3	366	95	44	73
Vending apparatus .....	M. Sielaff .....	378,982	Mar. 6	168	48	42	999
Vending apparatus .....	L. Stollwerck .....	384,939	June 19	1634	484 485	43	1448
Vending apparatus .....	J. B. Underwood .....	381,892	Apr. 24	2394	623	43	500
Vending apparatus .....	R. Whittaker .....	387,670	Aug. 14	716	184	44	717
Vending-machine. Coin-controlled .....	F. M. Leavitt .....	393,162	Nov. 20	1432	374	45	887
Veneer .....	J. B. Wilson .....	389,624	Sept. 18	1252	338	44	1323
Veneer-cutting machine .....	E. Densmore .....	382,219	May 1	497	129	43	605
Veneer-cutting machine .....	C. L. Merrill .....	381,057	June 5	322	91, 92	43	1182
Veneer from logs. Machine for cutting .....	F. L. Wilson .....	394,898	Dec. 18	1509	469	45	1440
Veneer-machine .....	J. W. Trout .....	378,741	Feb. 28	2073	547	42	923
Veneer-machine. Rotary-cutting .....	H. H. Coe .....	384,129	June 5	423	117 118	43	1202
Veneers. Device for grooving and cutting .....	H. C. Ward .....	390,271	Oct. 2	101	29	45	23
Vent-plug .....	M. Schuetz .....	377,087	Jan. 31	1986	519	42	410
Vent-plug for drawing liquors .....	C. A. Carlson .....	393,418	Nov. 27	1815	479	45	971
Vent-plug for kegs and casks .....	W. F. Class .....	376,635	Jan. 17	1305	343	42	265
Ventilating apparatus .....	F. Murphy .....	381,078	Apr. 10	1182	314	43	238
Ventilating apparatus for railway-cars, factories, &c. .....	J. D. Voak .....	376,494	Jan. 17	1091	287	42	224
Ventilating buildings. System for .....	J. McCreery .....	390,030	Sept. 25	1861	493	44	1451
Ventilating-cover .....	J. Davies .....	388,024	Aug. 21	1258	341	44	831
Ventilating-wheel .....	E. Fox .....	383,217	May 22	1999	524	43	925
Ventilation. System of .....	L. C. Tuttle .....	389,616	Sept. 18	1242	325	44	1321
Ventilator:							
See Awning-ventilator. Soil-pipe ventilator.							
Boot or shoe venti- Stove-ventilator.							
later. Stove-hood ventilator.							
Car-ventilator. Stove-pipe ventilator.							
Hat-ventilator. Wall-ventilator.							
Room-ventilator. Window-ventilator.							
Sewer-ventilator.							
Ventilator .....	E. J. Colby .....	381,112	Apr. 17	1240	335	43	260
Ventilator .....	B. Holbrook .....	392,559	Nov. 6	557	141	45	701
Ventilator .....	S. W. Hurlburt .....	376,094	Jan. 10	518	138	42	111
Ventilator .....	F. G. Johnson .....	394,577	Dec. 18	1268	332	45	1335
Ventilator .....	E. F. Kittoe .....	395,282	Dec. 25	2421	620	45	1563
Ventilator .....	G. and D. Lemley .....	391,902	Oct. 30	2421	655	45	506
Ventilator .....	M. A. W. Louis and C. T. Murray .....	376,827	Jan. 24	1612	422	42	330
Ventilator .....	J. W. McKinnon .....	383,313	May 22	2142	565	43	951
Ventilator .....	G. A. Prichard and E. Mignault .....	391,425	Oct. 23	1746	467	45	358
Ventilator .....	J. H. Reynolds .....	383,592	May 29	2560	677	43	1036
Ventilator .....	F. C. Weyner .....	376,989	Mar. 6	188	52	42	1002
Ventilator .....	G. W. Miller .....	377,633	Feb. 7	423	108	42	576
Ventilator and damper. Combined .....	T. F. Stevenson .....	383,023	May 15	1703	442	43	858
Vessel and making the same. Hollow .....	J. Karmann .....	376,036	Jan. 3	434	116	42	87
Vessel-cover fastening .....	L. Sloan .....	388,733	Aug. 28	2338	630	44	1042
Vessel for transporting breakable goods .....	J. Ringen .....	377,275	Jan. 31	2249	594	42	461
Vessel-stopper .....	W. G. Travers .....	391,928	Oct. 30	2459	664	45	513
Vessel-trimmer .....	T. Wilson .....	376,839	Jan. 24	1637	428	42	334
Vessels against rats. Protector for .....	J. F. Hanscom .....	379,461	Mar. 13	871	235	42	1138
Vessels. Apparatus for taking up the slack in steer- ing-ropes of .....							
Vessels. Combined bitt and deck-pipe for .....	F. S. Manton .....	387,894	Aug. 14	1046	274	44	780
Vessels. Composition for lining .....	J. A. Blanchard .....	380,853	Apr. 10	824	43	43	171
Vessels. Device for increasing the speed of .....	H. C. Smith .....	389,330	Sept. 11	809	206	44	1234
Vessels. Hull of .....	R. H. Tucker .....	394,416	Dec. 11	1011	265	45	1274
Vessels. Ice-breaker for .....	F. W. Schiller .....	384,593	June 12	1124	297	43	1341
Vessels. Leak-stopper for .....	L. Weihe .....	381,302	Apr. 17	1504	405	43	309
Vessels. Means for buoying up .....	W. D. T. Travis .....	387,933	Aug. 14	1119	298	44	795
Vessels. Re-enforcing the hulls of .....	T. M. Rees .....	388,917	Sept. 4	167	44	44	1104
Vessels. Sheet-ring detacher for .....	A. D. Pest .....	378,554	Feb. 28	1814	479	42	874
Vessels. Shock-arrester for the rigging of .....	F. Wheeler .....	384,008	June 5	245	71	43	1169
Vest .....	D. W. Baker .....	391,768	Oct. 23	2207	596	45	454
Vest-protector .....	B. Ives .....	380,576	Apr. 3	410	117	43	83
Veterinary castrating-instrument .....	J. Arnold .....	391,107	Oct. 16	1309	349	45	267
Veterinary drencher .....	J. P. Lemmon .....	389,307	Sept. 11	783	199	44	1229
Veterinary drenching-tube .....	G. W. Cady .....	382,688	May 15	1234	321	43	765
Veterinary instrument .....	W. Myers .....	389,664	Sept. 18	1326	347	44	1336
Veterinary purposes. Harness for .....	L. C. Tiffany .....	378,153	Feb. 21	1219	318	42	750
Veterinary remedy .....	H. Dose .....	393,434	Nov. 27	1821	45	972	
Veterinary surgical device .....	I. W. Benedict .....	381,491	Apr. 17	1795	478	43	366
Veterinary surgical instrument .....	J. Hilton .....	385,353	July 3	20	6	41	6
Vibrator. Electrical continuity .....	G. F. Milliken .....	391,547	Oct. 23	1915	515	45	394
Vignetting-screen .....	H. B. Hansbury .....	393,642	Nov. 27	2159	565	45	1041
Violin-bow .....	J. Bohmann .....	390,279	Oct. 2	110	31	45	25
Violin-bridge .....	J. Kopp .....	388,883	Sept. 4	114	31	44	1094

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Violin-case.	A. T. Van Winkle.	386,442	July 17	1635	430	44	333
Violin-players. Thumb-brace for.	A. T. John.	389,085	Sept. 4	405	106	44	1150
Violin tail-piece.	J. B. Daudelin.	387,494	Aug. 7	434	113	44	657
Viollins. Improving the tone of.	C. C. Hudson.	389,813	Sept. 18	1533	406	44	1380
Viollus. Tail-piece for.	E. Ruueström.	393,034	Nov. 20	1267	327	45	854
Vise.	F. Armstrong and N. W. Vandegrift.	383,165	May 22	1924	503	43	910
Vise.	R. E. M. Bain.	376,623	Jan. 17	1288	339	42	261
Vise.	P. Brown and W. Trabue.	380,178	Mar. 27	1957	522	42	1365
Vise.	C. A. Candler.	389,792	Sept. 18	1505	396 397	44	1374
Vise.	J. W. Cheney.	389,199	Sept. 11	608	156	44	1194
Vise.	B. R. Clark.	378,082	Feb. 21	1105	289	42	731
Vise.	N. W. Crandall.	390,650	Oct. 9	629	168	45	133
Vise.	F. E. Farwell.	386,697	July 24	2000	529	44	415
Vise.	C. J. Hermann.	382,360	May 8	728	183 184	43	657
Vise.	C. J. Hormann.	391,321	Oct. 16	1601	424	45	323
Vise.	J. W. McIntyre.	378,893	Mar. 6	52	15	42	976
Vise.	E. I. Nichols.	380,401	Apr. 3	139	41	43	29
Vise.	J. Parkinson.	394,292	Dec. 11	829	220	45	1239
Vise.	H. B. Rieder.	395,079	Dec. 25	2092	542	45	1504
Vise.	D. W. Starkey.	381,178	Apr. 17	1334	356	43	276
Vise.	E. Stocklin.	394,793	Dec. 18	1631	427 428	45	1407
Vise.	G. Thorp.	392,378	Nov. 6	300	76	45	652
Vise.	W. L. Tobey.	380,734	Apr. 10	649	179	43	139
Vise. Foot-power bench.	J. Goodrich.	378,362	Feb. 21	1529	400	42	810
Vise. Machine.	G. B. Taylor.	381,890	Apr. 24	2391	622	43	500
Vise or clamp. Hand.	A. H. George.	376,191	Jan. 10	660	176	42	137
Vise. Self-closing.	H. B. Smith and G. B. Hinman.	380,461	Apr. 3	228	62	43	47
Vises. Making metal.	R. Johnson.	394,540	Dec. 11	1194	311	45	1307
Volt-ammeter.	O. B. Shallenberger.	380,943	Apr. 10	965	256	43	197
Voltaic armor.	J. W. Baldwin.	389,187	Sept. 11	593	151	44	1191
Voltaic batteries. Solution for.	C. E. Egan.	381,542	Apr. 24	1879		43	400
Voltaic plaster.	W. C. Collins.	393,741	Dec. 4	8	3	45	1074
Voltmeter.	P. Lange.	383,649	May 29	2643	699	43	1055
Voting-machine.	W. W. Ford.	376,980	Jan. 24	1820	478	42	370
Vulcanized plastic compound.	W. Kiel.	393,838	Dec. 4	152		45	1101
Vulcanizing apparatus.	A. B. Woodard.	384,183	June 5	506	138	43	1219
Vulcanizing apparatus and other purposes. Automatic regulator for.	O. B. Brann.	385,236	June 26	2094	536 537	43	1551
Vulcanizing-baths. Automatic heat-regulator for.	A. J. Simpson.	392,696	Nov. 13	764	194	45	748
Waffle-iron.	E. Christie.	394,058	Dec. 4	476	127	45	1162
Wagon.	E. M. Allen.	376,934	Jan. 24	1760	463	42	358
Wagon.	G. S. Conwell.	383,344	May 22	2179	577	43	958
Wagon.	H. G. Lane.	387,237	Aug. 7	55	13	44	582
Wagon.	W. C. Nason.	393,718	Nov. 27	2267	595	45	1062
Wagon.	J. A. Ruth.	387,816	Aug. 14	927	240	44	757
Wagon and carriage lifter.	D. B. Hamlet.	382,700	May 15	1251	327	43	768
Wagon-bed.	A. H. Hall.	388,557	Aug. 28	2079	559 560	44	993
Wagon bed and brake. Combined.	S. R. Riffe.	378,337	Feb. 21	1497	391	42	802
Wagon-bed elevator.	W. A. Holliday.	386,468	July 24	1684	444	44	356
Wagon-bed fastener.	S. E. Baughman.	388,809	Sept. 4	3	2	44	1073
Wagon-body.	F. Burgess.	388,528	Aug. 28	2041	549	44	986
Wagon-body.	R. G. Hart.	388,675	Aug. 28	2258	605	44	1026
Wagon-body.	T. Tyson.	390,043	Sept. 25	1890	499	44	1457
Wagon-bolster.	J. Haish.	384,619	June 19	1164	308	43	1358
Wagon-bolster spring.	L. M. Hunter.	380,574	Apr. 3	406	116	43	83
Wagon-bolster spring.	L. Pulliam.	394,935	Dec. 18	1817	475	45	1452
Wagon-bolster spring.	D. B. Smith.	393,345	Nov. 20	1701	449	45	941
Wagon-bolster standard.	R. F. Koelsing and W. Meeklenburg.	381,627	Apr. 24	1997	524	43	424
Wagon-box.	G. W. Manlove and E. A. Parker.	381,479	Apr. 17	1778	474	43	362
Wagon-box fastener.	M. Schmucker.	389,324	Sept. 11	802	204	44	1252
Wagon-box unloader.	G. A. Stone.	391,723	Oct. 23	2148	581	45	411
Wagon-brake.	O. T. Baker.	389,829	Sept. 18	1555	411 412	44	1381
Wagon-brake.	H. W. Falk.	394,846	Dec. 18	1726	448	45	1425
Wagon-brake.	R. Ford, Sr.	380,679	Apr. 10	568	156	43	123
Wagon-brake.	J. Gift.	377,101	Jan. 31	2008	536	42	414
Wagon-brake.	E. Horton.	389,303	Sept. 11	778	197	44	1227
Wagon-brake.	H. Hunt.	394,365	Dec. 11	945	248	45	1262
Wagon-brake.	C. A. Lowell.	375,884	Jan. 3	219	57	42	45
Wagon-brake.	W. J. Mackey.	380,502	Apr. 3	292	85	43	59
Wagon-brake.	J. W. Martin.	381,502	Apr. 17	1818	481	43	371
Wagon-brake.	W. H. McCowan.	391,170	Oct. 16	1395	371 372	45	283
Wagon-brake.	R. J. Mitchell.	383,187	May 22	1953	512	43	916
Wagon-brake.	E. A. Parker.	381,413	Apr. 17	1675	449	43	343
Wagon-brake.	F. Rice.	382,271	May 1	576	146	43	619
Wagon-brake.	J. Smith.	382,912	May 15	1529	400	43	825
Wagon-brake.	G. C. Thayer.	389,777	Sept. 18	1482	390	44	1369
Wagon-brake.	J. B. Walker.	381,865	Apr. 24	2353	610	43	491
Wagon-brake. Automatic.	J. H. Davie.	389,447	Sept. 11	985	264	44	1268
Wagon-brake. Automatic.	J. H. Fisher.	380,754	Apr. 10	672	186	43	143
Wagon-brake block.	C. P. Bateman.	376,404	Jan. 10	949	249	42	190
Wagon-brake lever.	W. A. Westbrook.	378,123	Feb. 21	1167	304	42	742
Wagon. Buckboard.	W. Leppert and W. I. Gardiner.	386,141	July 17	1189	317	44	248
Wagon. Coal.	J. R. Wilson.	388,801	Aug. 28	2437	658	44	1061
Wagon-coupling.	A. C. Long.	392,619	Nov. 13	660	165	45	727
Wagon-curtain.	J. H. Huckle.	388,563	Aug. 28	2090	562	44	995
Wagon. Dump.	G. W. Richardson.	377,331	Jan. 31	2334	677	42	476
Wagon. Dumping.	J. Cameron, J. S. and W. S. Judson.	380,277	Mar. 27	2088	559 560	42	1392
Wagon. Dumping.	W. E. Hewlett.	387,415	Aug. 7	315	81	44	633

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volunc.		Official Gazette.	
				Spec.	Dr.	Vol.	Page.
Wagon. Dumping.....	A. C. McEwen.....	376,902	Jan. 24	1718	{ 450 451 }	42	351
Wagon. Dumping.....	A. Rodgers and W. T. Hatten.....	378,523	Feb. 28	1766	467	42	865
Wagon. Dumping.....	D. S. Watson.....	378,272	Feb. 21	1402	367	42	784
Wagon. Dumping.....	D. A. Williams.....	383,930	June 5	134	39	43	1146
Wagon. Dumping.....	A. M. Woolfolk.....	382,787	May 15	1365	{ 358 359 }	43	790
Wagon-fender.....	C. E. Wagner.....	387,762	Aug. 14	768	196	44	726
Wagon-gear.....	R. Fernandez.....	395,045	Dec. 25	2039	{ 526 527 }	45	1492
Wagon-gear.....	N. L. Holmes.....	380,893	Apr. 10	895	{ 239 240 }	43	183
Wagon-gear.....	C. W. Saladee.....	379,417	Mar. 13	805	217	42	1125
Wagon-jack.....	W. T. Brown.....	394,820	Dec. 18	1672	437	45	1414
Wagon-jack.....	J. A. Corey.....	388,341	Aug. 21	1774	473	44	928
Wagon-jack.....	R. Harris.....	382,807	May 15	1391	365	43	705
Wagon-jack.....	J. W. McRobert.....	392,623	Nov. 13	665	165	45	728
Wagon-jack.....	A. P. Millsparagh.....	384,705	June 19	1304	341	43	1385
Wagon-jack.....	E. A. Redford.....	387,735	Aug. 14	818	211	44	735
Wagon-jack.....	T. Surtees.....	394,311	Dec. 11	860	227	45	1245
Wagon-jack and truck. Combined.....	W. Beckert.....	386,913	July 31	2338	619	44	490
Wagon-loading apparatus.....	A. F. Bernard.....	393,499	Nov. 27	1941	598	45	995
Wagon-lock.....	I. M. McGonigle.....	376,329	Jan. 10	854	224	42	172
Wagon-panel fastener.....	H. Hett.....	380,798	Apr. 10	747	205	43	157
Wagon. Police patrol.....	J. Bonfield.....	379,266	Mar. 13	580	160	42	1081
Wagon-rack.....	R. Caldwell.....	380,181	Mar. 27	1961	{ 523 524 }	42	1366
Wagon-rack.....	J. W. McMaster.....	378,703	Feb. 28	2027	{ 535 536 }	42	915
Wagon-reach coupling.....	E. S. Cushman.....	392,543	Nov. 6	537	135	45	697
Wagon reach-slide.....	F. G. Winnek.....	378,071	Feb. 14	1086	285	42	719
Wagon running-gear.....	M. Keech and J. Laberde.....	388,282	Aug. 21	1684	450	44	912
Wagon running-gear.....	M. S. Tyler.....	379,619	Mar. 20	1115	{ 295 296 }	42	1191
Wagon-seat.....	W. A. Ladd.....	381,534	June 12	1040	271	43	1326
Wagon-seat.....	G. Mahl.....	386,145	July 17	1200	319	44	250
Wagon-seat.....	C. Van Horn.....	377,540	Feb. 7	282	73	42	550
Wagon-seat spring.....	J. F. Moore.....	376,718	Jan. 17	1433	376	42	228
Wagon-skeins. Manufacture of.....	S. B. Parsous.....	379,026	Mar. 6	241	69	42	1012
Wagon-spring.....	M. Baltes.....	382,290	May 8	617	157	43	637
Wagon-spring.....	E. G. Lee.....	375,941	Jan. 3	293	79	42	61
Wagon-spring.....	A. O. Smith.....	393,489	Nov. 27	1930	505	45	992
Wagon-spring.....	D. Wilcox.....	381,309	Apr. 17	1515	409	43	311
Wagon-spring brace.....	F. H. Mason.....	375,826	Jan. 3	135	39	42	31
Wagon-stake.....	F. W. Starr.....	388,928	Sept. 4	184	48	44	1108
Wagon-standard.....	J. E. Fowler.....	382,963	May 15	1600	418	43	838
Wagon-standard.....	J. Hurt.....	386,433	July 17	1621	426	44	334
Wagon-standard.....	J. B. Hutchinson.....	383,055	May 15	1761	455	43	868
Wagon-standard.....	T. G. Mandt.....	391,256	Oct. 16	1511	401	45	366
Wagon-step.....	E. Scott.....	381,429	Apr. 17	1700	456	43	349
Wagon-step.....	W. D. Smith.....	389,332	Sept. 11	811	207	44	1234
Wagon. Sugar.....	J. Graves.....	391,842	Oct. 30	2337	633	45	488
Wagon-wrench.....	J. A. Corey.....	392,146	Oct. 30	2799	760	45	580
Waist. Dress.....	H. A. Brown.....	392,493	Nov. 6	467	117	45	683
Waists. Making dress.....	H. A. Brown.....	392,494	Nov. 6	467	118	45	684
Waistband attachment.....	G. A. Newton.....	389,162	Sept. 4	549	138	44	1174
Waiter or salver for tables.....	L. Harris.....	389,466	Sept. 11	1010	270	44	1272
Walking-beam saddle.....	D. H. Bumpus.....	385,542	July 3	314	81	44	64
Wall-case.....	J. R. H. Hinton.....	389,747	Sept. 18	1446	378	44	1361
Wall-covering.....	J. A. Shephard.....	376,350	Jan. 10	882	.....	42	178
Wall-covering composition.....	C. Straub.....	382,740	May 15	1302	.....	43	778
Wall-covering. Manufacture of.....	I. B. Abrahams.....	377,283	Jan. 31	2259	597	42	463
Wall for frame buildings.....	H. Liefer.....	389,090	Sept. 4	413	108	44	1151
Wall-paper.....	F. Beck.....	388,472	Aug. 28	1969	.....	44	972
Wall-paper cutter.....	C. T. Ridgely.....	389,901	Sept. 25	1687	445	44	1416
Wall-paper exhibitor.....	M. O. Smith.....	384,726	June 19	1326	346	43	1329
Wall-paper-hanging machine.....	J. F. McAffee.....	387,793	Aug. 14	891	{ 230 231 }	44	750
Wall-protector.....	R. S. Robbins and A. H. Broad.....	389,979	Sept. 25	1794	475	44	1437
Wall-tie. Wire.....	N. Morse.....	392,744	Nov. 13	835	212	45	762
Wall-ventilator and stove-pipe thimble.....	J. P. Ekstrom.....	380,027	Mar. 27	1752	{ 468 469 }	42	1324
Walls. Building.....	E. E. Hiatt.....	378,898	Feb. 28	2238	596	42	955
Walls, ceilings, &c. Covering for.....	G. Pettit, Jr., and A. Bowers.....	377,534	Feb. 7	279	71	42	549
Walls, ceilings, &c. Interior finishing for.....	J. W. Blakeney.....	392,902	Nov. 13	1067	276	45	809
Walls. Finish for plastered.....	T. Jones.....	383,397	May 23	2263	.....	43	973
Walls of buildings. Facing for.....	A. M. Hansen.....	383,359	May 8	728	183	43	657
Walls of buildings, &c. Method of and means for sealing and climbing the.....	J. M. Murphy.....	395,071	Dec. 25	2077	537	45	1501
Walls of buildings. Sheet-metal siding for covering the.....	J. B. Determann.....	381,000	Apr. 10	1060	280	43	214
Walls. Straightening.....	P. B. Johnson.....	377,940	Feb. 14	909	234	42	685
Wardrobe, bureau, and wash-stand. Combined.....	H. F. Wulff.....	382,400	May 8	786	199	43	668
Wardrobe-hook.....	H. L. Bradley.....	379,759	Mar. 20	1315	351	42	1231
Warning apparatus and stove. House.....	J. Price.....	383,119	May 22	1866	487	43	899
Warning-pan.....	H. W. Davis and D. E. Gurney.....	392,013	Oct. 30	2582	702	45	537
Warp-beaming machine.....	N. Boyle.....	379,045	Mar. 6	270	78	42	1016
Warp for pattern-making.....	C. H. Landenberger.....	384,182	May 22	1947	510	43	915
Warp-splitting machine.....	F. Haskell.....	381,998	May 1	171	44	45	545
Warps, &c. Machine for drying.....	F. Haskell.....	390,963	Oct. 9	1073	{ 284 285 }	45	216
Warps. Machine for linking.....	W. Hurst.....	387,165	July 31	2724	{ 714 715 }	44	557
Warping and balling machine.....	E. E. Orrell.....	381,164	Apr. 17	1317	352	43	273
Warping-machine.....	W. Bancroft.....	377,659	Feb. 7	468	119	42	583

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Warping-machine.	W. Bancroft.	380,642	Apr. 3	498	139	43	102
Warping-machines. Lease-forming mechanism for.	A. Woodman.	380,641	Apr. 3	497	139	43	102
Warping-reel.	J. H. Stone.	389,862	Sept. 18	1624	423	44	1396
Wash-bench.	W. N. Cochraue.	378,921	Mar. 6	85	21	42	983
Wash-bench and wringer-holder.	W. Baldwin.	391,933	Oct. 30	2467	667	45	515
Wash-bench. Folding.	G. H. Hayes and H. K. Nash.	391,247	Oct. 16	1497	398	45	394
Wash-bench, ironing-table, and settee. Combined.	O. S. Jennings.	386,471	July 24	1688	441	44	356
Wash-board.	H. S. Brewington.	382,751	May 15	1313	345	43	780
Wash-board.	J. R. Cluxton.	382,512	May 8	960	243	43	702
Wash-board.	W. Finlay.	392,669	Nov. 13	726	184	45	739
Wash-board.	E. Hamburjer.	387,354	Aug. 7	229	60	44	616
Wash-board-making machine.	J. R. Cluxton.	377,236	Jan. 31	2186	577 578	42	450
Wash-boiler.	W. M. Coventry.	386,626	July 24	1901	502 503	44	397
Wash-boiler.	M. Davenport.	388,956	Sept. 4	223	59	41	1115
Wash-boiler.	M. Davis.	392,315	Nov. 6	198	51	45	631
Wash-boiler.	A. A. Klein.	379,522	Mar. 20	1060	282	42	1181
Wash-boiler.	C. H. Stoddart.	387,605	Aug. 7	626	163	41	693
Wash-bowl.	T. C. Boyd and J. J. Wade.	380,082	Mar. 27	1831	487	42	1340
Wash-bowl. Stationary.	T. C. Boyd and J. J. Wade.	380,083	Mar. 27	1832	488	42	1340
Wash-stand.	J. D. Hall.	381,621	Apr. 24	1991	522 523	43	422
Wash-stand.	G. D. Tolman and L. D. Roberts.	389,990	Sept. 25	1812	480	41	1441
Wash-stand and bracket. Combined.	G. W. Schooley.	387,922	Aug. 14	1098	291	44	791
Wash-stand and commode or earth-closet.	A. D. Elwell.	391,599	Oct. 23	1982	534	45	408
Wash-stand and water-closet. Combined.	A. D. Elwell.	376,871	Jan. 24	1677	438	42	342
Wash-stand bowl.	N. O. Bond.	382,251	May 1	550	139	43	614
Wash-stand. Combination-bracket.	G. D. Tolman and L. D. Roberts.	387,832	Aug. 14	953	217	44	763
Wash-stands, bath-tubs, and sinks. Attachment for.	W. Dunnett.	381,925	Apr. 17	1395	373	43	288
Wash-tub.	F. J. Torrance and F. A. Wells.	388,089	Aug. 21	1361	367 368	44	850
Wash-tub. Cement.	C. Wesely.	384,814	June 19	1455	380	43	1415
Washer.							
See Axle-washer.	Sand and gravel washer.						
Barrel-washer.	Steam-washer.						
Bottle-washer.	Street-washer.						
Clothes-washer.	Tumbler-washer.						
Coal-washer.	Tumbler or bottle washer.						
Dish-washer.	Wide-range yielding washer.						
Gas-washer.							
Ore-washer.							
Washer.	T. E. Halford and E. W. Beckingsale.	383,198	July 17	1265	337	44	263
Washer-blank.	G. H. Griffin.	344,538	Dec. 11	1190	310	45	1306
Washer-cutter.	C. Wunderlick.	376,974	Jan. 24	1812	477	42	369
Washers. Leather coil for.	G. H. Avery.	386,051	July 10	1049	280 281	44	214
Washers. Machine for making.	H. A. Harvey.	379,393	Mar. 13	765	207	42	1117
Washers. Machine for making.	S. J. Shimer.	392,886	Nov. 13	1043	269 270	45	804
Washing dishes, fruits, &c. Machine for.	C. R. King.	392,517	Nov. 6	498	125	45	690
Washing-fluid.	M. Schneider.	392,885	Nov. 13	1042	270	45	804
Washing-machine.	J. Abrends.	391,771	Oct. 30	2213	559 600	45	465
Washing-machine.	E. W. Allen.	393,957	Dec. 4	327	89	45	1135
Washing-machine.	J. H. Allen.	383,683	May 29	2688	711	43	1065
Washing-machine.	C. T. Anderson.	379,263	Mar. 13	575	159	42	1060
Washing-machine.	W. L. G. Appleby.	380,272	Mar. 27	2022	557	42	1391
Washing-machine.	T. L. Barker and J. Hornbaker.	393,092	Nov. 20	1340	350	45	868
Washing-machine.	S. S. Barrie.	376,279	Jan. 10	782	207	42	110
Washing-machine.	F. P. Beisel.	379,357	Mar. 13	711	193	42	1106
Washing-machine.	D. H. Benjamin.	394,672	Dec. 18	1427	372	45	1364
Washing-machine.	J. Biddison.	377,510	Feb. 7	249	60	42	512
Washing-machine.	M. L. Blackwelder.	378,919	Mar. 6	83	24	42	982
Washing-machine.	J. M. Boughton.	380,675	Apr. 10	564	155	43	123
Washing-machine.	D. K. Breazeale.	388,114	Aug. 21	1402	377	44	857
Washing-machine.	R. Campbell.	387,576	Aug. 7	586	153	41	685
Washing-machine.	N. B. Clabaugh.	382,755	May 15	1317	346	43	781
Washing-machine.	C. R. Crane.	395,037	Dec. 25	2027	523 524	45	1490
Washing-machine.	W. J. Davidson.	394,913	Dec. 18	1844	478	45	1446
Washing-machine.	J. H. Doub and F. Robbins.	384,311	June 12	702	187	43	1264
Washing-machine.	J. C. Drake.	383,110	May 22	1852	484	43	896
Washing-machine.	L. Ducharme and G. Erard.	389,239	July 17	1348	355	44	277
Washing-machine.	G. F. Dunning.	376,238	Jan. 10	727	193	42	149
Washing-machine.	W. C. Edwards.	378,242	Feb. 21	1356	358	42	777
Washing-machine.	J. R. Elliott.	381,003	Apr. 10	1064	282	43	215
Washing-machine.	W. Fowles.	382,149	May 1	399	101	43	587
Washing-machine.	O. F. Glidden.	383,425	May 22	2309	612	43	981
Washing-machine.	O. J. Graham.	381,362	Apr. 17	1599	428	43	328
Washing-machine.	H. Haggard.	387,069	July 31	2578	678 679	44	533
Washing-machine.	C. Hammens.	394,646	Dec. 18	1382	361	45	1355
Washing-machine.	F. Hanson.	393,769	Nov. 27	2249	590	45	1052
Washing-machine.	H. T. Henderson.	385,622	July 3	430	113	44	85
Washing-machine.	E. Herrington.	386,539	July 24	1791	473	41	374
Washing-machine.	A. Iske.	389,516	Sept. 11	1079	256	44	1284
Washing-machine.	G. Jagenburg.	390,862	Oct. 9	925	244	45	187
Washing-machine.	N. S. Johnson.	377,829	Feb. 14	751	190	42	652
Washing-machine.	J. Killfer.	380,902	Apr. 10	966	243	43	186
Washing-machine.	W. R. Kramer.	392,954	Nov. 13	1139	296	45	822
Washing-machine.	L. R. Krant.	392,348	Nov. 6	255	65	45	643
Washing-machine.	J. F. Kuhlman.	378,138	Feb. 21	1200	312	42	747
Washing-machine.	J. W. Lasswell.	388,207	Aug. 21	1569	417	44	888
Washing-machine.	H. J. Lockhart.	380,396	Apr. 3	133	40	43	28

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Washing-machine.	E. Lommatzsch.	386,327	July 17	1463	387	44	299
Washing-machine.	J. L. Martin.	391,543	Oct. 23	1907	512	45	392
Washing-machine.	W. I. McCausland.	377,765	Feb. 14	654	164	42	635
Washing-machine.	C. and J. W. Mears.	380,445	Apr. 3	204	55, 56	43	42
Washing-machine.	D. E. Merrill and J. C. Thomas.	390,885	Oct. 9	955	252	45	194
Washing-machine.	W. F. Moore.	388,706	Aug. 28	2304	619	44	1035
Washing-machine.	A. Mueller.	388,996	Sept. 4	271	72	44	1125
Washing-machine.	H. Nadermann.	380,814	Apr. 10	765	210	43	160
Washing-machine.	S. N. Neal.	387,250	Aug. 7	77	18	44	586
Washing-machine.	W. Near.	388,998	Sept. 4	274	73	44	1125
Washing-machine.	M. Newton.	377,530	Feb. 7	275	69	42	548
Washing-machine.	O. G. Newton.	391,913	Oct. 30	2437	659	45	509
Washing-machine.	J. Plettner.	392,880	Nov. 13	1035	267	45	803
Washing-machine.	L. Reinhardt.	381,643	Apr. 24	2015	520	43	498
Washing-machine.	N. S. Ruddock.	393,033	Nov. 20	1265	327	45	854
Washing-machine.	F. Schumpe.	380,939	Apr. 10	960	255	43	116
Washing-machine.	J. Shephard.	388,728	Aug. 28	2331	628	44	1041
Washing-machine.	J. Shill.	377,277	Jan. 31	2250	595	42	461
Washing-machine.	L. Simon.	395,084	Dec. 25	2098	543	45	1505
Washing-machine.	S. J. Smith.	393,931	Dec. 4	290	78		
Washing-machine.	J. H. Thoren.	392,474	Nov. 6	442	111	45	678
Washing-machine.	G. H. Thompson.	391,282	Oct. 16	1552	411	45	313
Washing-machine.	T. Thorn.	381,298	June 12	686	183	43	1261
Washing-machine.	S. Turnbach.	390,724	Oct. 9	731	192	45	153
Washing-machine.	J. R. Welpton.	388,606	Aug. 28	2177	519	44	1008
Washing-machine.	I. Whitney.	376,932	Jan. 24	1758	462	42	358
Washing-machine.	A. M. Wilson.	389,039	Sept. 4	339	89	44	1136
Washing-machine.	G. E. Wood.	375,858	Jan. 3	172	48	42	39
Washing or dyeing machines. Roller for.	W. Birch.	379,442	Mar. 13	836	226	42	1132
Watch.	H. Hammarland.	388,036	Aug. 21	1274	346	44	834
Watch-balance.	C. K. Giles.	387,973	Aug. 11	1176	319	44	866
Watch-balance.	P. W. Rohde.	380,769	Apr. 10	704	194	43	149
Watch-balance. Compensation.	A. F. Pickert.	387,567	Aug. 7	567	148	44	661
Watch-barrel.	H. Oehl.	391,183	Oct. 16	1413	377	45	287
Watch-box. Portable bullet-proof.	P. F. Miligan.	383,752	May 29	2799	735	43	1086
Watch-case.	E. C. Chappatte.	384,346	June 12	764	199		
Watch-case.	C. K. Giles.	385,612	July 3	421	107	44	83
Watch-case.	C. K. Giles.	386,398	July 17	1558	413	44	318
Watch-case.	E. F. Heffernan.	384,623	June 19	1176	310	43	1360
Watch-case.	C. F. Morrill and D. C. Percival.	384,380	June 12	817	212	43	1284
Watch-case.	R. J. Quigley.	382,190	May 1	455	118	43	597
Watch-case.	R. J. Quigley.	384,640	June 19	1196	316	43	1264
Watch-case.	G. C. Smith.	387,321	Aug. 7	185	48	44	607
Watch-case pendant.	P. A. C. Bradford.	395,209	Dec. 25	2306	592	45	1541
Watch-case pendant.	H. Gerber.	383,219	May 22	2002	524	43	926
Watch-case pendant.	P. Henry.	378,959	Mar. 6	137	40	42	993
Watch-case pendant.	F. W. Schimmel.	387,011	July 31	2499	656	44	518
Watch-case pendants. Making.	W. W. Bradley.	391,016	Oct. 16	1178	313	45	242
Watch-case spring.	N. J. Felix.	386,308	July 17	1440	381	44	394
Watch-case spring.	C. G. Harstrom.	376,524	Jan. 17	1135	297	42	292
Watch-case spring.	C. Teske.	388,157	Aug. 21	1498	399	44	674
Watch-cases or other articles. Die for making.	F. Eaubert.	382,517	May 8	965	244	43	703
Watch-cases. Ornamenting.	J. Baynes.	391,917	Sept. 25	1712	453	44	1422
Watch hair-spring stud.	L. Aebly.	384,668	June 19	1239	326	43	1373
Watch-hands. Tool for removing.	J. C. Rand.	380,407	Apr. 3	147	42	43	31
Watch-mainspring.	D. H. Church.	385,908	July 10	869	229	44	178
Watch-makers' lathes. Clamping-jaw for.	E. Rivett.	375,771	Jan. 3	68	21	42	17
Watch-makers' lathes. Counter-shaft bracket for.	E. Rivett.	375,770	Jan. 3	67	20	42	17
Watch-makers' lathes. Gear-shaping attachment for.	E. Rivett.	389,905	Sept. 25	1692	447	44	1417
Watch-maker's tool.	J. Cook.	390,457	Oct. 2	363	94	45	76
Watch-maker's tweezers.	P. Seewald.	390,260	Oct. 2	88	25	45	21
Watch-movement box.	W. A. Gill and C. A. Morningstar.	390,161	Sept. 25	2070	552	44	1494
Watch-movements. Apparatus for exhibiting or demonstrating non-magnetic.	A. Lawrence.	395,151	Dec. 25	2216	569	45	1526
Watch-movements. Device for exhibiting magnetic and non-magnetic.	A. C. Smith.	393,402	Nov. 27	1789	473	45	966
Watch or other case.	C. E. F. Lewis.	393,248	Nov. 20	1561	469	45	914
Watch-plates. Machine for the manufacture of pillars for.	F. Leman.	389,497	Apr. 3	279	78	43	57
Watch-pocket. Safety.	A. Dormitzer.	380,279	Mar. 27	2094	560		
Watch-protector.	J. Debrinke.	380,869	Apr. 10	851	230	43	175
Watch-regulator.	E. F. L. Grandjean.	394,919	Dec. 18	1856	480	45	1448
Watch-regulator.	H. W. Welles.	391,101	Oct. 16	1303	347	45	966
Watch-regulator. Compensating.	W. H. Shear.	395,182	Dec. 25	2270	582	45	1534
Watch-repairers. Screw-holder for.	W. E. Counter and L. O. Miller.	392,589	Nov. 13	610	153	45	718
Watch. Repeating.	C. H. Meylan.	390,501	Oct. 2	431	112	45	88
Watch. Repeating.	H. O. Stauffer.	383,256	May 22	2059	540	43	937
Watch. Split-seconds stop.	C. H. Meylan.	383,749	May 29	2793	541		
Watch-springs. Making.	J. Logan.	377,489	Feb. 7	212	51	42	536
Watch. Stem-winding.	S. A. Durgin.	388,648	Aug. 28	2315	595	44	1018
Watch. Stem-winding.	D. Perret.	378,974	Mar. 6	156	45	42	997
Watch. Stem winding and setting.	L. Aebly.	384,669	June 19	1240	327	43	1373
Watch. Stem winding and setting.	W. D. Davies.	381,219	Apr. 17	1387	371	43	286
Watch. Stem winding and setting.	J. Duplain.	388,186	Aug. 21	1541	410	44	881
Watch. Stem winding and setting.	A. L. Keller.	387,306	Aug. 7	164	43	44	602
Watch. Stem winding and setting.	C. Kistler.	392,580	Nov. 6	588	148	45	708
Watch. Stem winding and setting.	T. F. Sheridan.	376,015	Jan. 3	401	106	42	80
Watch. Stem winding and setting.	O. F. Stedman.	380,225	Mar. 27	2024	541	42	1379
Watch. Stem winding and setting.	W. H. Stevens.	383,673	May 29	2677	708	43	1062
Watch. Stem winding and setting.	J. H. Thornhill.	392,140	Oct. 30	2790	757	45	578
Watch. Stem winding and setting.	J. N. Whipple.	381,601	Apr. 24	1963	517	43	417



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Watch. Stop.....	A. and F. Henchoz.....	392,729	Nov. 13	818	208	45	758
Watch. Stop.....	E. Heuer.....	377,896	Feb. 14	841	215	42	670
Watch. Stop.....	E. Heuer.....	377,897	Feb. 14	843	215	42	670
Watch. Stop.....	V. Jeannot.....	378,592	Feb. 28	1869	494	42	885
Watch. Stop.....	E. Kuhn.....	383,059	May 15	1766	456	43	869
Watch. Stop.....	H. A. Leonard and G. Kettlewell.....	379,963	Mar. 27	1650	{ 439 440 }	{ 42 42 }	1305
Watch. Stop.....	H. A. Lugrin.....	379,075	Mar. 6	311	91	42	1024
Watch. Stop.....	A. L. Piquet.....	394,933	Dec. 18	1872	484	45	1451
Watch. Striking.....	J. Walzer.....	383,260	May 22	2067	542	43	938
Watch-wheels. Means for beveling.....	H. Huguenin.....	381,785	Apr. 24	2916	500	43	467
Watch-winding mechanism.....	C. Morlet.....	395,166	Dec. 25	2242	576	45	1530
Watches. Balance-escapement for.....	S. E. Kochenderfer.....	386,592	July 24	1860	491	44	387
Watches. Balance-staff for.....	C. Morlet.....	387,247	Aug. 7	71	17	41	585
Watches. Cannon-pinion for.....	L. C. Briggs.....	388,625	Aug. 28	2183	586	44	1013
Watches. Cannon-pinion for.....	H. E. Murdock.....	389,663	Sept. 18	1325	346	44	1336
Watches. Device for ascertaining the expansibility and contractibility of balance-wheels for.....	J. Logan.....	392,442	Nov. 6	393	96	45	668
Watches. Device for holding.....	E. J. Lezard.....	381,936	May 1	51	14	43	525
Watches. Display-stand for non-magnetic.....	A. C. Smith.....	378,339	Feb. 21	1500	392	42	803
Watches. Machine for making pendants for.....	A. Stalnacke.....	383,326	May 22	2156	569	43	954
Watches. Mainspring for.....	F. Sedgwick.....	381,176	Apr. 17	1333	356	43	275
Watches. Setting mechanism for.....	A. Fischer.....	388,404	Aug. 28	1876	501	44	952
Watches. Stem winding and setting mechanism for.....	D. H. Church.....	379,050	Mar. 6	275	{ 81 82 }	{ 44 42 }	1017
Watchman's electric controlling apparatus.....	O. Skrivan and F. Dvorak.....	376,980	Jan. 24	1740	{ 457 458 }	{ 42 42 }	355
Water by steam. Apparatus for raising.....	W. Burnham.....	394,826	Dec. 18	1683	439	45	1417
Water-closet.....	E. W. Clark and J. Crawford.....	390,204	Oct. 2	12	4	45	5
Water-closet.....	W. S. Cooper.....	385,167	June 26	1988	509	43	1529
Water-closet.....	W. S. Cooper.....	385,168	June 26	1989	509	43	1529
Water-closet.....	J. Crawford.....	383,045	May 15	1749	452	43	866
Water-closet.....	A. Elmendorf.....	385,409	July 3	107	30	44	23
Water-closet.....	P. G. Hubert.....	391,972	Oct. 30	2524	683	45	526
Water-closet.....	P. G. Hubert.....	391,973	Oct. 30	2526	683	45	526
Water-closet.....	P. G. Hubert.....	393,109	Nov. 20	1362	355	45	873
Water-closet.....	P. G. Hubert.....	393,647	Nov. 27	2167	566	45	1042
Water-closet.....	G. H. Hughes.....	393,070	Nov. 20	1310	341	45	836
Water-closet.....	E. H. Israel.....	391,714	Oct. 23	2137	578	45	439
Water-closet.....	E. T. Johnson.....	376,744	Jan. 24	1471	388	42	305
Water-closet.....	T. Kennedy.....	376,311	Jan. 10	825	218	42	167
Water-closet.....	G. Michaud.....	383,750	May 29	2795	735	43	1085
Water-closet.....	W. F. North.....	387,804	Aug. 14	910	236	44	754
Water-closet.....	F. A. Wells.....	381,660	Apr. 24	2043	535	43	433
Water-closet.....	P. White.....	393,676	Nov. 27	2215	580	45	1052
Water-closet cistern.....	J. Demarest.....	378,294	Feb. 21	1438	375	42	791
Water-closet cistern.....	J. Demarest.....	378,664	Feb. 28	1972	523	42	905
Water-closet cistern.....	J. Demarest.....	379,376	Mar. 13	744	202	42	1112
Water-closet cistern.....	J. Demarest.....	386,917	July 31	2364	621	44	491
Water-closet cisterns. Overflow-valve for.....	J. Demarest.....	386,918	July 31	2365	621	44	491
Water-closet cisterns. Seat-connection for.....	J. Demarest.....	376,867	Jan. 24	1672	436	42	341
Water-closet coupling.....	J. P. Putnam.....	377,776	Feb. 14	672	169	42	638
Water-closet flush-tank valve.....	P. V. Dwyer.....	394,475	Dec. 11	1093	284	45	1288
Water-closet flushing apparatus.....	S. G. McFarland.....	378,100	Feb. 21	1131	296	42	736
Water-closet flushing-pipe.....	T. Butler.....	376,137	Jan. 10	587	157	42	133
Water-closet hopper and bowl.....	A. Ivers.....	382,080	May 1	323	84	43	572
Water-closet. Pump.....	W. Bishop.....	378,333	Feb. 21	1519	398	42	808
Water-closet. Siphon.....	D. D. Buick.....	383,028	May 15	1728	450	43	863
Water-closet. Siphon.....	T. Kennedy.....	376,002	Jan. 3	381	101	42	77
Water-closet seats and other seats. Extension-leg for.....	C. E. Schmidt.....	388,076	Aug. 21	1341	362	44	846
Water-closet structure.....	W. S. Cooper.....	385,169	June 26	1990	510	43	1529
Water-closet supply apparatus.....	J. P. Adams.....	382,128	May 1	371	96	43	581
Water-closet supply-tank.....	J. Holden.....	379,699	Mar. 20	1332	328	42	1215
Water-closet system.....	H. S. Miller.....	385,130	June 26	1940	495	43	1519
Water-closet tank.....	A. Haarlender.....	385,709	July 10	565	147	44	118
Water-closet valve.....	C. H. Harkins.....	380,257	Mar. 27	2065	533	42	1388
Water-closet valve.....	C. H. Harkins.....	391,318	Oct. 16	1595	423	45	321
Water-closet valve.....	T. McHugh.....	392,741	Nov. 13	831	211	45	701
Water-closets. Apparatus for regulating the supply of liquids for.....	W. Davies.....	377,293	Jan. 31	2280	{ 602 603 }	{ 42 42 }	467
Water-closets. Automatic retention-valve for.....	W. L. Williams.....	392,900	Nov. 13	1064	276	45	808
Water-closets. Combined trap and seal for.....	W. E. Andrew.....	395,109	Dec. 25	2138	552	45	1513
Water-closets. Construction of troughs for.....	W. B. Parsons, Jr.....	384,175	June 5	495	135	43	1217
Water-closets. Device for closing the lids of.....	A. Chainay.....	378,162	Feb. 21	1232	324	42	753
Water-closets. Double flush-valve for.....	T. Campbell and J. H. McPartland.....	383,858	June 5	13	4	43	1123
Water-closets, &c. Flushing apparatus for.....	J. Demarest.....	381,221	Apr. 17	1389	371	43	286
Water-closets. Hopper-cock for.....	T. W. McFadden.....	388,896	Sept. 4	133	36	44	1097
Water-closets, &c. Reservoir for.....	S. E. Hughes.....	391,249	Oct. 16	1499	398	45	304
Water-closets. Reservoir or tank apparatus for.....	G. W. Hubbard.....	378,367	Feb. 21	1538	402	42	811
Water-closets. Reservoir or tank apparatus for.....	G. W. Hubbard.....	379,310	Mar. 13	651	177	42	1094
Water-closets. Service-box for.....	J. Crawford.....	381,911	May 1	20	5	43	518
Water-closets. Service or water tank for.....	F. H. Paradise.....	392,359	Nov. 6	271	69	45	645
Water-closets. Time closing-valve for.....	A. W. Cram.....	380,619	Apr. 3	470	133	43	95
Water-closets. Valve-connection for hopper.....	G. F. Marshall.....	382,820	May 15	1406	369	43	799
Water-closets, &c. Water-supply apparatus for.....	D. S. Keith.....	377,261	Jan. 31	2229	589	42	457
Water-conductor.....	J. W. Abrahams.....	381,664	Apr. 24	2048	536	43	434
Water-cooler.....	S. Glück.....	386,244	July 17	1354	357	44	278
Water cooler and filter.....	J. H. Dumont.....	388,347	Aug. 21	1781	{ 475 476 }	{ 44 44 }	930
Water cooler and filter.....	G. Van der Hylen.....	384,801	June 19	1432	376	43	1411
Water-coolers. Ice-cage for.....	E. P. Bennett.....	387,037	July 31	2528	664	44	523
Water-distributing apparatus.....	J. Cornell.....	380,313	Apr. 3	10	2	43	4
Water. Electrical apparatus for purifying.....	A. R. Leeds.....	383,184	May 22	1949	511	43	915
Water-elevator.....	J. W. and J. J. Adams.....	389,681	Sept. 18	1350	354	44	1341
Water-elevator.....	C. Benker.....	389,831	Sept. 18	1557	412	44	1384
Water-elevator.....	C. E. Glessner.....	389,071	Sept. 4	385	100	44	1146

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Water elevator and carrier.	C. Wood.	393,285	Nov. 20	1622	426	45	925
Water-elevator. Automatic.	F. J. Case.	388,261	Aug. 21	1658	442	44	906
Water-elevator for buildings. Electrical.	A. E. Hall.	393,828	Dec. 4	133	37, 38	45	1098
Water-elevator. Pneumatic.	J. B. Erwin.	387,711	Aug. 14	784	202	44	729
Water-elevator. Pneumatic.	T. O. Perry.	382,324	May 8	668	169	43	646
Water-elevator. Pneumatic.	T. O. Perry.	382,727	May 15	1280	336	43	774
Water-feeder.	C. A. Southwick.	384,874	June 19	1554	404	43	1432
Water-fetching machine.	C. G. Mattson.	383,894	June 5	66	20	43	1133
Water-gage.	F. L. McGahan.	394,870	Dec. 18	1763	457	45	1432
Water-gage.	M. Parker and J. E. Tupper.	376,255	Jan. 10	753	200	42	155
Water-gage. Alarm.	G. Fisher and P. Rappold.	380,881	Apr. 10	872	234	43	179
Water-gage indicator.	A. F. Lauderholm and O. F. Olson.	382,044	May 1	255	65	43	560
Water-gage. Safety.	J. G. Blount.	391,012	Oct. 16	1165	310	45	240
Water-gages. Reflector for.	S. P. Gilbert.	379,802	Sept. 18	1532	403	44	1377
Water-gate.	C. J. Cheney.	388,632	Aug. 28	2194	589	44	1015
Water-gate.	E. E. Smith.	377,089	Jan. 31	1987	520	42	410
Water-heater.	W. M. Barber.	393,878	Dec. 4	216	58	45	1113
Water-heater.	D. Grove.	384,202	June 5	537	146	43	1225
Water-heater.	E. Gurney.	389,458	Sept. 11	1003	268	44	1270
Water-heater.	H. E. Harrington.	393,900	Dec. 4	248	67	45	1119
Water-heater.	C. G. Jewett.	384,685	June 19	1293	337	43	1382
Water-heater.	G. W. Lewton.	385,276	June 26	2139	552	43	1564
Water-heater.	A. A. Pierce.	376,545	Jan. 17	1161	305	42	237
Water-heater.	C. A. Winsor.	387,196	July 31	2774	725	44	565
Water heater and purifier.	W. Webster.	390,538	Oct. 2	181	126	45	97
Water-heater furnace.	A. Spence.	380,297	Mar. 27	2114	566	42	1397
Water-heater. Sectional.	W. Kirkwood.	383,418	Aug. 28	1894	506	44	956
Water-heating apparatus.	M. H. Clifford.	393,819	Dec. 4	121	33	45	1095
Water-heating apparatus.	A. P. Creque.	377,096	Jan. 31	2062	524	42	412
Water-heating apparatus. Fitting for.	A. P. Creque.	379,269	Mar. 13	584	161	42	1082
Water, &c. Hydraulic apparatus for raising.	H. D. Pearsall.	382,340	May 8	760	193	43	663
Water. Means for utilizing the current force of running.	C. M. Garrison.	385,261	June 26	2136	544	43	1559
Water-melon holder.	G. H. Moser.	379,903	Mar. 20	1564	412	42	1278
Water-meter.	W. A. G. Schönheyder.	377,641	Feb. 7	433	111	42	578
Water-meter.	J. Thomson.	387,828	Aug. 14	943	244	44	761
Water-meter. Disk.	J. Davies.	384,024	June 5	266	76	43	1173
Water-meter. Disk.	J. Thomson.	387,831	Aug. 14	949	246	44	762
Water-meter. Piston.	F. W. Dick.	389,145	May 1	394	103	43	586
Water-meter. Piston.	F. E. Gilford.	377,674	Feb. 7	477	126	42	587
Water-meter. Piston.	F. L. Sylvester.	389,262	Sept. 11	709	181	44	1215
Water-meter register.	F. T. Gilbert.	393,102	Nov. 20	1351	333	45	871
Water-meter. Rotary.	P. Ball.	386,795	July 31	2156	567	44	453
Water-meter. Rotary.	S. L. Shufleton.	375,899	Jan. 3	228	62	42	48
Water-meter. Rotary.	J. A. Tilden.	380,669	Apr. 3	547	159	43	110
Water-meter with rotating piston.	L. H. Nash.	379,805	Mar. 20	1390	369	42	1247
Water-motor.	S. S. Allin.	379,753	Mar. 20	1306	348	42	1229
Water-motor.	R. Emerson.	392,017	Oct. 30	2587	704	45	538
Water-motor.	S. B. Goff.	393,897	Dec. 4	943	65, 66	45	1118
Water-motor.	W. Howard.	392,730	Nov. 13	818	208	45	758
Water-motor.	E. F. Ranks.	376,616	Jan. 17	1259	330	42	256
Water-motor.	H. E. Trumble.	393,316	Nov. 20	1660	438	45	933
Water-motor.	H. E. Trumble.	394,740	Dec. 18	1537	402	45	1388
Water-motor.	J. Wilhelm.	388,750	Aug. 28	2360	636	44	1047
Water-motors. Rotary nozzle-head for.	E. S. Piper.	380,691	Apr. 10	586	161	43	127
Water or gas. Electrical method of automatically controlling the supply of.	L. Weil.	381,866	Apr. 24	2354	610	43	492
Water or liquid heater.	C. G. Marshall.	378,512	Feb. 28	1750	462	42	862
Water-power.	A. Gustlin.	383,291	May 22	2113	558	43	946
Water-proof composition for floors, walls, &c.	C. V. Mitige.	385,471	July 3	206	44	41	
Water-proof garment.	C. W. Morrison.	376,720	Jan. 17	1436	378	42	259
Water-proof garment. Ventilated.	N. Spiro.	386,727	July 24	2043	538	44	423
Water purifier and filter.	O. H. Jewell.	377,389	Feb. 7	35	10, 11	42	502
Water. Purifying.	C. C. Peck.	394,208	Dec. 11	691	185	45	1212
Water-purifying apparatus.	J. H. Blessing.	379,673	Mar. 20	1190	315	42	1206
Water-purifying apparatus.	T. Foley.	387,406	Aug. 7	305	78	44	631
Water-purifying apparatus.	O. H. Jewell.	386,073	July 10	1078	290	44	220
Water-purifying apparatus.	W. Webster, Jr.	387,467	Aug. 7	396	103	44	650
Water-regulator attachment.	M. Cresalia.	388,954	Sept. 4	221	59	44	1115
Water-service apparatus.	J. W. Hill.	375,748	Jan. 3	41	12	42	12
Water-tank.	H. A. Gleason.	377,427	Feb. 7	123	26	42	518
Water-tank and life-boat. Combined.	S. J. E. Jørgensen.	384,579	June 12	1103	290	43	1338
Water-tower.	J. Lockwood.	380,960	Oct. 9	1108	293	45	222
Water-tower, extension-ladder, and fire escape. Combined.	A. Kalinski, E. Crippen, and M. T. Cashen.	387,887	Aug. 14	1031	271	44	777
Water-trap for cisterns and other receptacles. Automatic.	C. H. Pickering.	387,442	Aug. 7	367	94	44	645
Water-trough with submerged heater.	J. F. Ferguson.	386,873	July 31	2297	604	44	478
Water-tube boiler. Sectional.	E. J. Moore.	376,483	Jan. 17	1672	281	42	221
Water-wheel.	E. M. Carhart.	386,802	July 31	2167	571	44	455
Water-wheel.	W. C. Edwards.	390,847	Oct. 9	906	240	45	184
Water-wheel.	W. F. Englebright.	391,523	Oct. 23	1880	505	45	386
Water-wheel.	A. Georg and W. Kleindinst.	384,838	June 19	1498	390	43	1423
Water-wheel.	I. P. Lambing.	387,791	Aug. 14	889	229	44	750
Water-wheel.	S. B. Lard.	391,539	Oct. 23	1901	510	45	390
Water-wheel.	C. C. Taylor.	379,741	Mar. 20	1289	344	42	1226
Water-wheel.	J. N. Weeks.	376,357	Jan. 10	892	233	42	180

*Alphabetical list of inventions—Continued.*

Invention.	Name	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Water-wheel. Current	L. Colt	388,531	Aug. 28	2048	551	44	987
Water-wheel. Current	J. H. Knight	384,916	June 19	1607	418	43	1443
Water-wheel governor	J. Morton	385,280	June 26	2165	553	43	1565
Water-wheel. Turbine	N. P. Burnham	382,026	May 1	219	58	43	554
Water-wheel. Turbine	S. M. Smith	383,777	May 29	2848	750	43	1094
Water-wheels. Bearing for turbine	G. L. Richardson	391,918	Oct. 30	2443	660	45	510
Water-wheels. Electric speed-governor for	G. M. Lee	392,679	Nov. 13	738	187	45	712
Water-wheels with movable floats or paddles. Construction of	J. F. Lefort	382,887	May 15	1496	392	43	818
Watering hogs and other animals. Device for	D. F. and J. A. Collingwood	377,016	Jan. 31	1879	494	42	339
Watering live stock. Device for	H. W. Conkling	389,546	Sept. 18	1130	297	44	1301
Watering poultry. Device for	S. A. Bacon	386,865	July 31	2287	601	44	476
Watering-stand	A. Hausman	380,570	Apr. 3	400	114	43	82
Watering stock. Tank for	G. Fry	386,242	July 17	1352	356	44	278
Watering-trough for cattle	W. E. Haskins	383,124	May 22	1871	489	43	900
Watering-troughs. Device for heating	D. J. Hadley	394,689	Dec. 18	1456	380	45	1370
Wave-power motor	F. Starkenberg	385,327	June 26	2242	574 } 575	43	1579
Wax-end machine	R. M. Macintosh	384,700	June 19	1298	339	43	1384
Ways. Construction of permanent	G. Cowdery and E. R. Thomas	388,266	Aug. 21	1664	444	44	908
Weaner. Animal	W. H. Wheeler	377,794	Feb. 14	706	177	42	645
Weaner. Calf	H. W. and W. Fuller	380,796	Apr. 10	744	204	43	156
Weaner. Calf	E. Hacklander	393,068	Nov. 20	1309	341	45	862
Weaner. Calf	H. O'Hare	393,341	Nov. 20	1697	448	45	940
Weaner. Calf	W. H. Predmore	386,266	July 17	1386	365	44	284
Weaning-muzzle for animals	J. F. Miller	382,237	May 1	524	134	43	610
Wear-compensating device	E. R. Hyde	395,275	Dec. 25	2414	618	45	1561
Wear-plate	J. W. Currier	379,210	Mar. 13	512	144	42	1069
Weather-board holder and gage	M. G. Stanley and W. F. Jones	390,041	Sept. 25	1888	498	44	1457
Weather-boarding gage	E. Hotchkiss	378,548	Feb. 28	1803	476	42	872
Weather-strip	T. P. Asbury	376,846	Jan. 24	1646	431	42	336
Weather-strip	D. W. Bosley	390,945	Oct. 9	1045	276	45	212
Weather-strip	F. P. Burcaw	378,064	Feb. 14	1077	283	42	717
Weather-strip	G. P. Dodge	378,778	Feb. 28	2124	561	42	933
Weather-strip	C. Guyer	391,963	Oct. 30	2510	600	45	523
Weather-strip	T. Hibbert	385,711	July 10	570	148	44	118
Weather-strip	W. Holton	393,646	Nov. 27	2166	566	45	1042
Weather-strip	J. Johnston	387,078	July 31	2587	681	44	534
Weather-strip	J. Lathrop	394,864	Dec. 18	1755	455	45	1430
Weather-strip	T. K. Milroy	385,065	June 26	1847	473	43	1499
Weather-strip	J. Peyton	381,166	Apr. 17	1322	353	43	273
Weather-strip	L. M. Pratt	377,828	Feb. 14	763	195	42	655
Weather-strip	S. A. Rankin	375,951	Jan. 3	304	81	42	63
Weather-strip	R. C. Redman	386,267	July 17	1387	366	44	284
Weather-strip	E. Stalker	389,418	Sept. 11	941	247	44	1259
Weather-strip	W. Syester	383,837	May 29	2941	777 } 778	43	1112
Weather-strip	O. Tatman and J. Byar	382,780	May 15	1355	356	43	788
Weather-strip	J. Thompson and J. O. Stebbens	384,003	June 5	240	70	43	1168
Weather-strip	W. H. Woodard	390,637	Oct. 2	607	161	45	122
Weather-strip for car-doors	E. R. Stiles	381,037	Apr. 10	1117	299	43	225
Weather-stripping	W. H. Cosper	379,208	Mar. 13	506	142	42	1068
Weaver's comb	P. Reoney	378,376	Feb. 21	1518	405	42	814
Weaver's use. Tool for	J. P. Hillard	390,599	Oct. 2	558	148	45	112
Weaving-needle	F. C. Easley and M. Bradley	382,641	May 8	1157	298	43	741
Weaving. Pile-wire for	G. Segsneider	379,545	Mar. 13	993	267	42	1161
Weed-cutter	G. Hauschild	386,246	July 17	1357	357	44	279
Weed-cutter. Sectional	D. M. Denelhy and H. W. Childs	376,735	Jan. 24	1459	385	42	303
Weed-cutter. Self-cleaning	F. E. Lux	393,479	Nov. 27	1917	501	45	989
Weeding-tool	C. Maynard	384,635	June 19	1192	315	43	1363
Weigher and register. Automatic grain	J. K. Bender and J. H. Bingman	394,440	Dec. 11	1045	273	45	1280
Weigher. Automatic grain	E. Fiscus	391,888	Oct. 30	2401	650	45	502
Weigher. Automatic grain	J. Henry	383,126	May 22	1873	489	43	900
Weigher. Automatic grain	E. A. Hoover	389,513	Sept. 11	1074	285	44	1283
Weigher. Automatic grain	E. C. Wiley	377,417	Feb. 7	111	23	42	515
Weighing and recording apparatus. Automatic	E. H. Amet	385,900	July 10	857	226 } 227	44	175
Weighing and registering apparatus. Automatic grain	L. C. Tryon	385,024	June 26	1776	459	43	1487
Weighing and registering apparatus. Grain	J. Pepper	379,325	Mar. 13	672	182	42	1098
Weighing and sacking grain. Device for	C. E. Cole	377,513	Feb. 7	255	63	42	543
Weighing and weight-printing machine	C. C. Clawson	379,858	Mar. 20	1488	393 } 394	42	1264
Weighing and weight-printing machinery. Coin-controlled	C. C. Clawson	381,339	Apr. 17	1562	420 } 421	43	321
Weighing and weight-printing machinery. Coin-controlled musical	C. C. Clawson	381,338	Apr. 17	1566	420	43	320
Weighing apparatus	J. Marquardt	394,869	Dec. 18	1762	457	45	1431
Weighing apparatus. Automatic grain	E. R. Whitney	377,591	Feb. 7	354	92	42	563
Weighing apparatus for granular and powdered substances	H. E. Smyser	376,683	Jan. 17	1379	363	42	277
Weighing apparatus. Grain	W. B. Avery	383,032	May 15	1716	446 } 447	43	861
Weighing apparatus. Grain	M. E. Reisert	376,965	Jan. 24	1799	473 } 474	42	366
Weighing apparatus. Indicator for	H. Fairbanks	387,285	Aug. 7	120	32	44	595
Weighing, bagging, and registering device. Grain	W. H. Grove	377,428	Feb. 7	124	27	42	518
Weighing, bagging, and tallying machine. Grain	F. R. Graetz	379,273	Mar. 13	500	163	42	1083
Weighing grain. Machine for	L. H. Solon and J. McMahon	385,532	July 3	304	77	44	61
Weighing, lifting, lung-testing, and height-measuring. Coin-controlled machine for	E. J. Colby	391,513	Oct. 23	1666	501	45	383
Weighing-machine	E. Wölner	384,659	June 19	1222	323 } 324	43	1370
Weighing machine. Automatic grain	J. C. Morris	378,969	Mar. 6	150	44	42	996

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Weighing-machine. Coin-controlled.....	J. C. J. C. Favre .....	393,325	Nov. 20	1679	442	45	937
Weighing-machine. Coin-controlled.....	H. Stone and W. H. Pitt .....	393,593	Nov. 27	2077	543 544 218	45	1025
Weighing-machine. Coin-operated.....	T. A. Weber.....	380,837	Apr. 10	795	217 218 454	43	166
Weighing-machine. Coin-released.....	G. Reimann.....	376,910	Jan. 24	1728	455 321 322	42	353
Weighing-machine for grain. Automatic.....	D. West.....	384,657	June 19	1217	321 322	43	1369
Weighing machine. Grain.....	G. C. Flagg.....	392,670	Nov. 13	727	184	45	740
Weighing machine. Grain.....	D. Wilde.....	391,570	Oct. 23	1939	523	45	400
Weighing, registering, and bagging machine. Grain.	G. R. Kendrick.....	377,163	Jan. 31	2080	547 548	42	429
Weight and price indicating balance.....	A. Springer and W. Kent.....	383,499	May 29	2434	646	43	1011
Weight-motor.....	I. H. Celler.....	377,929	Feb. 14	888	229	42	680
Weight-motor.....	D. Lindahl.....	379,316	Mar. 13	660	178	42	1096
Weight-motor.....	O. M. Miller.....	394,000	Dec. 4	386	105	45	1145
Weight-motor.....	B. G. Mullins.....	389,713	Sept. 18	1399	366	44	1351
Weights. Device for raising and lowering.....	M. V. Davis.....	378,293	Feb. 21	1437	375	42	791
Welding apparatus. Cylinder.....	T. F. Rowland, W. E. Hill, and A. McLachlan.....	384,081	June 5	353	100	43	1188
Welding apparatus. Cylinder.....	T. F. Rowland, W. E. Hill, and A. McLachlan.....	384,082	June 5	354	100	43	1189
Welding. Apparatus for electric.....	E. Thomson.....	375,784	Jan. 3	86	26	42	21
Welding. Apparatus for electric.....	E. Thomson.....	385,022	June 26	1772	458	43	1486
Welding. Apparatus for electric.....	E. Thomson.....	386,441	July 17	1633	430	44	338
Welding apparatus. Portable electric.....	E. Thomson.....	394,892	Dec. 18	1794	465 466	45	1437
Welding-bench for plows.....	J. Dion.....	386,387	July 17	1543	409	44	315
Welding by electricity.....	E. E. Rics.....	386,088	July 10	1105	296	44	225
Welding chain-links. Machine for.....	J. C. Covert and J. Billingham.....	377,193	Jan. 31	2119	559	42	438
Welding-furnace.....	H. C. P. Le Pan.....	394,865	Dec. 18	1756	455	45	1430
Welding links. Die for.....	W. C. Kroegher.....	377,395	Feb. 7	43	12	42	504
Welding-machine.....	T. F. Rowland.....	375,836	Jan. 3	150	43	42	34
Welding-machine.....	D. Warner.....	391,441	Oct. 23	1762	473	45	362
Welding-machine. Direct electric.....	E. Thomson.....	385,386	July 3	67	19, 20	44	15
Well.....	B. F. McCann.....	377,903	Feb. 14	252	217	42	672
Well.....	H. Piering.....	388,219	Aug. 21	1584	421 422	44	890
Well-boring apparatus.....	B. Andrews.....	391,501	Oct. 23	1851	496	45	380
Well-boring device.....	G. Atkinson.....	394,322	Dec. 11	875	231	45	1248
Well-boring machine. Hydraulic.....	G. W. Durbrow.....	385,600	July 3	402	103	44	79
Well-curb.....	H. L. Beach.....	387,759	Aug. 14	848	219	44	741
Well-digging apparatus.....	W. Lowman.....	388,889	Sept. 4	124	34	44	1096
Well-drill.....	S. W. Titus and C. C. Clark.....	386,280	July 17	1403	370	44	287
Well-drilling device. Artesian.....	W. C. Mobley.....	392,627	Nov. 13	668	167	45	729
Well-drilling machine.....	T. G. Chapman.....	394,457	Dec. 11	1067	278	45	1284
Well-drilling machine.....	W. Manson.....	379,710	Mar. 20	1248	332	42	1218
Well-drilling machine.....	J. F. Moore.....	384,994	June 26	1716	445 446	43	1474
Well-drilling machine.....	C. Weber.....	382,500	May 8	943	239	43	699
Well or cistern cover.....	J. E. Blackburn.....	386,375	July 17	1528	405	44	312
Well or cistern cover.....	J. S. Redline.....	376,010	Jan. 3	397	105	42	79
Wellpackers or tubing. Anchor or support for deep.....	S. R. Dresser.....	387,675	Aug. 14	726	186	44	719
Well-point. Drive.....	F. H. Furniss.....	382,697	May 15	1246	326	43	767
Well-point. Sectional jacket drive.....	B. B. Bignall and R. A. Marsh.....	380,419	Apr. 3	162	46	43	33
Well-sinking apparatus.....	M. T. Chapman.....	382,689	May 15	1234	331 332 323	43	765
Well sinking machine.....	W. B. and J. R. Coffin.....	395,034	Dec. 25	2024	522	45	1489
Well-sinking machine.....	C. A. Overton and O. E. Ingersoll.....	394,719	Dec. 18	1496	390 391	45	1379
Well-trap.....	W. W. Peay.....	381,577	Apr. 24	1922	506	43	409
Well-tube.....	R. Putney.....	389,164	Sept. 4	532	139	44	1174
Wells and promoting the flow of oil. Device for cleaning oil.....	R. Shoff.....	391,431	Oct. 23	1755	470	45	360
Wells. Apparatus for the formation of deep.....	C. E. Kells.....	386,987	July 31	2462	647	44	511
Wells. Apparatus for walling.....	J. Moser.....	386,928	July 31	2380	626	44	494
Wells. Drive-point for driven.....	W. A. Royce.....	389,249	Sept. 11	694	177	44	1212
Wells. Packer for oil and gas.....	I. N. Hoadley.....	381,043	Apr. 10	1075	2-5	43	217
Wells. System of bailing.....	S. C. Rhodes.....	378,619	Feb. 28	1903	504	42	892
Wharves. Bracing for.....	T. Thomson.....	390,319	Oct. 2	163	46	45	36
Wheat heater or temperer.....	W. N. Schindler.....	394,618	Dec. 18	1335	349	45	1347
Wheat-scutting machine.....	R. W. Welch.....	377,920	Feb. 14	876	234	42	678
Wheel:							
See Axle-wheel.	Plow-wheel.						
Barrow-wheel.	Polishing-wheel.						
Car-wheel.	Propeller-wheel.						
Carriage-wheel.	Railway-wheel.						
Chain-wheel.	Saw-wheel.						
Conical wheel.	Sprocket-wheel.						
Emery-wheel.	Toothed wheel.						
Fifth-wheel.	Toy wind-wheel.						
Fly-wheel.	Traction-wheel.						
Gage-wheel.	Truck-wheel.						
Gear-wheel.	Vehicle-wheel.						
Harvester-wheel.	Velocipede-wheel.						
Metal wheel.	Ventilating-wheel.						
Metallic wheel.	Water-wheel.						
Paddle-wheel.	Wind-wheel.						
Wheel.....	G. W. Baker.....	391,833	Oct. 30	2324	630	45	486
Wheel.....	J. Polick.....	376,938	Jan. 24	1766	464	42	360
Wheel.....	P. H. Cummins.....	393,218	Nov. 20	1519	398	45	905
Wheel.....	S. Forman.....	394,068	Dec. 4	487	130	45	1165

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Wheel	T. Groom	384,033	June 5	284	80	43	1175
Wheel	A. J. Hanks	384,759	June 19	1372	359	43	1399
Wheel	J. B. Hatch and W. N. Stroud	391,045	Oct. 16	1224	325	45	252
Wheel	S. A. Hawn	389,469	Sept. 11	1014	271	44	1273
Wheel	S. V. Kennedy	383,645	May 29	2638	698	43	1054
Wheel	C. Kramer	390,977	Oct. 9	1104	292	45	221
Wheel	J. R. Little	386,326	July 17	1463	387	44	299
Wheel	H. Q. Maurino	383,966	June 5	183	55	43	1156
Wheel	M. McDowell	386,332	July 17	1468	389	44	300
Wheel	T. O'Brien	388,907	Sept. 4	154	40	44	1102
Wheel	H. E. Pridmore	382,899	May 15	1513	396	43	822
Wheel	D. L. Rush	394,511	Dec. 11	1145	297	45	1298
Wheel	W. Sheridan	379,250	Mar. 13	561	156	42	1077
Wheel	A. A. Smith and I. A. Weston	380,358	Apr. 3	82	26	43	19
Wheel	J. T. Upington	381,445	Apr. 17	1731	462	43	353
Wheel	H. and H. Weste	393,133	Nov. 20	1394	364	45	879
Wheel	G. E. Whitmore	379,841	Mar. 20	1460	386	42	1259
Wheel	A. M. Williamson	387,549	Aug. 7	532	138	44	675
Wheel-making machine	A. E. Quintal	394,608	Dec. 18	1320	345	45	1345
Wheel-riveting machine	D. Warner	390,924	Oct. 9	1017	268	45	206
Wheels. Apparatus for the manufacture of	P. H. Gibbs	377,196	Jan. 31	2123	560	42	438
Wheels. Machine for securing spokes in metal.	W. P. Bettendorf	384,604	June 19	1144	302	43	1354
Wheels. Making metal	G. J. Zimmermann	392,252	Nov. 6	111	28, 29	45	616
Wheels. Manufacturing metal	J. R. Little	386,325	July 17	1462	386	44	298
Wheels or other bodies. Machine for determining and adjusting the balance of	R. Bagaley	385,833	July 10	747	195	44	152
Wheels. Rim-joint and spoke-socket for vehicle.	J. A. Eastman	381,121	Apr. 17	1263	338	43	262
Wheelbarrow	F. E. Fay	390,356	Oct. 2	223	59, 60	45	47
Wheelbarrow	R. B. Fouzer	392,150	Oct. 30	2-07	762	45	581
Wheelbarrow	D. A. Garver and C. H. Straight	381,358	Apr. 17	1594	426	43	327
Wheelbarrow	W. H. C. Goode	382,523	May 8	977	246	43	704
Wheelbarrow	W. Sleicher, Jr.	384,093	June 5	366	103	43	1191
Wheelbarrow	C. D. Spalding	385,381	July 3	60	17	44	14
Wheelbarrow	A. Taicher	387,327	Aug. 7	192	50	41	608
Wheelbarrow-tray	D. A. Garver and C. H. Straight	380,562	Apr. 3	389	111	43	79
Whiffletree	F. R. Cox	392,011	Oct. 30	2580	702	45	537
Whiffletree	G. B. N. Dow and J. H. Willey	387,216	Aug. 7	29	6	44	578
Whiffletree	M. B. Kirker	392,273	Nov. 6	139	35	45	620
Whiffletree	F. R. Wilson, Sr.	376,462	Jan. 17	1046	274	42	215
Whiffletree attachment	D. R. Lakin	381,255	Apr. 17	1447	390	43	297
Whiffletree attachment	G. Miles	379,239	Mar. 13	547	153	42	1075
Whiffletree-clip	F. W. Heefer	379,869	Mar. 20	1516	399	42	1269
Whiffletree-clip	W. M. Myers and A. Smith	383,900	June 5	76	22	43	1135
Whiffletree-coupling	B. F. Alvey and F. Leseur	393,347	Nov. 27	1711	453	45	951
Whiffletree-coupling	S. Beers	394,811	Dec. 18	1657	433	45	1412
Whiffletree-coupling	I. Bragg	391,576	Oct. 30	2783	646	45	498
Whiffletree-coupling	F. E. Cherrier	391,021	Oct. 16	1190	316	45	245
Whiffletree-coupling	L. A. Melburn	386,257	July 17	1375	362	44	282
Whiffletree-coupling	J. Zelfiff	389,350	Sept. 11	835	213	44	1240
Whiffletree-hook	J. H. Barnes and S. C. Keith	389,432	Sept. 11	958	250	44	1263
Whiffletree-hook	A. Curtis	376,733	Jan. 24	1457	384	42	302
Whiffletree-hook	J. C. Davis	380,621	Apr. 3	473	133	43	96
Whiffletree-hook	W. A. Ladd	391,054	Oct. 16	1234	329	45	254
Whiffletree-hook	W. T. Legates	389,396	Sept. 11	909	237	44	1253
Whiffletree-hook	N. F. Reed	376,011	Jan. 3	398	105	42	80
Whiffletree-hook	W. V. Reed	394,998	Dec. 25	1979	511	45	1481
Whiffletree-hook	G. T. Wilson	390,738	Oct. 9	753	197	45	156
Whiffletree hook. Spring	J. H. Foote	391,601	Oct. 23	1984	535	45	408
Whiffletree-iron	H. K. Porter	394,209	Dec. 11	691	185	45	1212
Whiffletree-snap	L. J. Bristol	381,325	Apr. 17	1540	415	43	316
Whiffletree-spring	E. C. Curry	382,353	May 8	718	181	43	655
Whiffletree. Spring	J. H. Foote	377,025	Jan. 31	1891	497	42	391
Whiffletree. Spring	J. H. Foote	377,026	Jan. 31	1892	497	42	391
Whiffletrees. Trace-fastening for	J. Huther	390,171	Sept. 25	2084	555	44	1497
Whip	D. B. Allen and E. K. Warren	375,974	Jan. 3	341	92	42	69
Whip	P. S. Harrington	382,258	May 1	561	141	43	617
Whip	E. Horton	392,122	Oct. 30	2763	750	45	573
Whip	G. Pirnie	375,950	Jan. 3	302	81	42	63
Whip and robe lock and line-holder. Combined	H. Martin and J. R. Palmer	380,633	Apr. 3	486	136	43	99
Whip attachment for holding ribbons, banners, &c.	J. G. Rahner	394,509	Dec. 11	1142	296	45	1297
Whip-button-rolling machine	W. A. Heath	382,230	May 1	515	132	43	608
Whip-core	C. M. Comstock	393,691	Nov. 27	2235	556	45	1056
Whip-core	E. K. Warren	376,273	Jan. 10	774	206	42	159
Whip-lash	J. L. Crisp	391,884	Oct. 30	2392	649	45	500
Whip-lash attachment	J. J. Bohler	375,984	Jan. 3	351	95	42	72
Whip-snapper attachment	W. Beeker	377,137	Jan. 31	2050	537	42	423
Whip-socket	C. S. Beebe	380,164	Mar. 27	1939	517	42	1361
Whip-socket	F. E. Benton	390,745	Oct. 9	767	203	45	159
Whip-socket	J. F. Bower	384,605	June 19	1146	303	43	1354
Whip-socket	W. E. Highfield	391,611	Oct. 23	1995	539	45	410
Whip-socket	J. Lathrop	388,368	Aug. 21	1838	485	44	937
Whip-socket	A. Searls	395,006	Dec. 25	1991	513	45	1433
Whip-socket and rein-holder. Combined	G. H. Gasking	381,359	Apr. 17	1595	427	43	327
Whip-stock core	H. S. Cushman	378,662	Feb. 28	1970	522	42	904
Whips. Machine for turning	O. Bryant	389,362	Sept. 11	852	218	44	1243
Whistle	S. R. Briggs	394,243	Dec. 11	755	200	45	1224
Whistle attachment. Automatic	M. Gage	379,641	Mar. 20	1145	303	42	1197
Wick	G. Munger	383,822	May 29	2920	771	43	1108
Wick-adjuster	C. A. Everts	392,547	Nov. 6	542	137	45	698

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Wick adjuster. Lamp.....	C. A. Evans .....	387,156	July 31	2711	{ 711 712 }	{ 44 44 }	555
Wick attachment. Lamp.....	F. Russell .....	389,171	Sept. 4	566	142	44	1176
Wick. Lamp.....	A. S. Yáñez .....	388,609	Aug. 28	2160	580	44	1009
Wick-raiser .....	Z. Davis .....	387,864	Aug. 14	997	260	44	771
Wick-raiser .....	F. Meyrose .....	387,529	Aug. 7	489	128	44	668
Wick-trimmer .....	A. Meyer .....	382,050	May 1	264	68, 69	43	562
Wide-range yielding washer ..	H. A. Harvey .....	385,621	July 3	438	113	44	85
Wind-engine .....	A. S. Clark .....	386,454	July 24	1659	438	44	350
Wind-engine .....	A. T. Winchell .....	381,313	Apr. 17	1525	411	43	313
Wind-instrument .....	M. F. Canney .....	387,338	Aug. 7	207	54	44	611
Wind-instrument .....	W. S. Canney .....	379,268	Mar. 13	583	161	42	1081
Wind-instrument .....	C. G. Conn .....	378,771	Feb. 28	2115	558	42	931
Wind-wheel .....	H. V. Johnson .....	383,467	May 29	2383	634	43	1002
Wind-wheel .....	W. W. Lockwood .....	385,674	July 3	508	130	44	98
Wind-wheel shafts. Governor for ..	W. S. Campbell .....	382,950	May 15	1583	413	43	835
Winding cotton, &c., upon a core. Machine for ..	C. F. Bradford .....	383,856	June 5	11	3, 4	43	1123
Winding machines. Bobbin and cop builder for yarn ..	T. J. Murdock .....	393,717	Nov. 27	2265	594	45	1061
Winding machines. Tension-regulating device for cop ..	J. Couche .....	393,887	Dec. 4	227	61	45	1115
Winding or halling machine .....	H. F. Straw .....	379,616	Mar. 20	1107	294	42	1189
Winding quills and bobbins. Machine for ..	J. E. Atwood .....	384,011	June 5	250	72	43	1170
Winding quills and bobbins. Machine for ..	V. Royle .....	385,480	July 3	215	56, 57	44	43
Winding-roll for winding paper and other fabrics ..	J. Waldron .....	385,026	June 26	1780	460	43	1487
Winding sewing-thread on flat bobbins. Machinery for ..	G. Scelles .....	395,178	Dec. 25	2263	580	45	1533
Winding shuttle-quills, &c. Machine for ..	V. Royle .....	389,013	Sept. 4	297	79, 80	44	1129
Winding silk, &c. Spool-holding spindle for ..	J. Martzloff .....	377,906	Jan. 31	2146	567	42	443
Winding spools. Machine for ..	J. L. Bugbee .....	375,921	Jan. 3	257	70, 71	42	54
Winding spools, &c. Machine for ..	A. Insinger .....	384,416	June 12	904	235	43	1301
Winding spools. Machine for ..	G. H. Wilkins .....	376,124	Jan. 10	566	{ 150 151 152 }	{ 42 42 }	119
Winding wire upon spools, &c. Machine for ..	C. F. and T. H. Wickwire .....	395,255	Dec. 25	2386	611	45	1555
Winding yarns from chains upon spools. Machine for ..	A. Cleghorn .....	387,396	Aug. 7	294	75, 76	41	628
Windlass .....	E. C. Bacon .....	381,203	Apr. 17	1369	366	43	282
Windlass .....	H. F. Crandall .....	380,995	Apr. 10	1054	278	43	213
Windlasses. Driving-gear for ships' ..	F. A. Grater and E. H. Whitney .....	386,812	July 31	2181	575	44	458
Windmill .....	T. J. Alexander .....	378,073	Feb. 21	1093	287	42	729
Windmill .....	T. H. and O. A. Brewer .....	380,547	Apr. 3	366	104	43	75
Windmill .....	F. Boecard .....	385,401	July 3	97	26, 27	44	21
Windmill .....	A. R. Bowman .....	386,684	July 24	1985	524	44	412
Windmill .....	A. W. Brodrick .....	384,232	June 12	589	160	43	1244
Windmill .....	C. Brown .....	375,729	Jan. 5	10	3	42	5
Windmill .....	W. H. Bunham and J. H. Miller .....	391,401	Oct. 23	1715	{ 456 457 }	{ 45 45 }	352
Windmill .....	W. Burrows .....	378,429	Feb. 28	1634	430	42	836
Windmill .....	M. T. and M. C. Chapman .....	378,235	Feb. 21	1347	{ 355 356 }	{ 42 42 }	776
Windmill .....	L. A. Cooper .....	377,602	Feb. 7	380	96	42	567
Windmill .....	A. J. Coreoran .....	387,212	Aug. 7	23	5	44	577
Windmill .....	S. Culver .....	389,205	Sept. 11	617	{ 157 158 }	{ 44 44 }	1196
Windmill .....	A. R. and C. B. Dempster .....	390,009	Sept. 25	1833	486	44	1445
Windmill .....	J. Devereux .....	381,679	Apr. 24	2071	511	43	439
Windmill .....	S. M. Fulton .....	379,512	Mar. 13	949	256	42	1152
Windmill .....	J. B. Gorrell .....	384,756	June 19	1366	358	43	1398
Windmill .....	J. Hamm .....	386,466	July 24	1682	443	44	355
Windmill .....	W. W. Hildreth .....	382,981	May 15	1625	425	43	842
Windmill .....	E. W. Kemner and A. F. Wiking .....	389,476	Sept. 11	1023	...	44	1274
Windmill .....	J. F. Kilburn .....	389,477	Sept. 11	1026	{ 273 274 }	{ 44 44 }	1274
Windmill .....	B. Koeppel .....	387,424	Aug. 7	330	85	44	636
Windmill .....	J. S. Marshall .....	385,676	July 3	511	{ 132 133 }	{ 44 44 }	99
Windmill .....	A. E. McNitt .....	377,491	Feb. 7	214	51	42	536
Windmill .....	E. P. Miles .....	383,477	May 29	2396	{ 637 638 }	{ 43 43 }	1005
Windmill .....	C. M. Moore .....	392,217	Nov. 6	58	15	45	606
Windmill .....	A. G. Nagel .....	387,102	July 31	2618	689	44	540
Windmill .....	W. D. Nichols .....	390,698	Oct. 9	606	185	45	146
Windmill .....	S. Paxton .....	391,856	Oct. 30	2355	639	45	492
Windmill .....	I. L. Pfaff .....	379,125	Mar. 6	383	109	42	1038
Windmill .....	J. S. Philpott .....	389,007	Sept. 4	287	76	44	1127
Windmill .....	G. A. Rasch .....	390,517	Oct. 2	452	117	45	92
Windmill .....	M. J. S. Solt .....	389,670	Sept. 18	1336	350	44	1338
Windmill .....	M. Steiner .....	377,964	Feb. 14	944	246	42	692
Windmill .....	D. C. Storer .....	386,503	July 24	1729	{ 456 457 }	{ 44 44 }	363
Windmill .....	W. Watkins .....	391,995	Oct. 30	2555	692	45	531
Windmill .....	W. C. Westaway .....	377,973	Feb. 14	956	249	42	694
Windmill .....	D. A. Whinery .....	387,938	Aug. 14	1127	201	44	797
Windmill .....	F. D. Winkley .....	391,571	Oct. 23	1941	{ 523 524 }	{ 45 45 }	400
Windmill-brake .....	J. Thompson .....	379,342	Mar. 13	693	188	42	1103
Windmill-regulator .....	O. Colvin .....	379,052	Mar. 6	279	81	42	1018
Windmill-regulator .....	J. R. Miller .....	387,363	Aug. 7	243	63	44	618
Windmills. Automatic regulating device for ..	C. F. Batham .....	379,847	Mar. 20	1467	{ 387 388 }	{ 42 42 }	1260
Windmills. Auxiliary motor for ..	G. C. Hunter .....	381,698	Apr. 24	2095	548	43	444
Windmills. Balance-gearing for ..	W. and C. H. Tuckwood .....	389,342	Sept. 11	825	211	44	1238
Windmills. Lightning-rod attachment for ..	E. O. Daniels .....	377,742	Feb. 14	588	{ 151 152 }	{ 42 42 }	621
Windmills. Pump-rod for ..	D. B. Netz .....	384,998	June 26	1723	447	43	1475



## Alphabetical list of inventions—Continued.

Invention.	Name.	No	Date	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol	Page.
Window	B. F. Dettra	386,003	July 10	984	263	41	201
Window	E. E. Edgerton and H. Metcalf	381,683	Apr. 24	2076	543	43	440
Window	H. S. and H. E. Klein	392,924	Nov. 13	1004	283	45	813
Window	H. Tintrop	385,932	Sept. 4	189	50	44	1109
Window	W. P. B. Urick	386,668	July 24	1065	519	41	409
Window	W. Wallace	390,270	Oct. 2	100	28, 29	45	21
Window	W. W. Wright	394,148	Dec. 4	600	161	45	1186
Window	J. B. Zettler	389,490	Sept. 11	1044	278	44	1278
Window and means for securing the same. Outside	B. P. Brooks	377,013	Jan. 31	1874	493	42	389
Window and picture hook	H. Lottie	378,891	Mar. 6	49	14	42	976
Window-bar	K. Kuenzel	377,624	Feb. 7	408	103	42	573
Window-head fastener	J. Mott	394,285	Dec. 11	822	218	45	1238
Window-cleaner	A. C. Cooke	395,267	Dec. 25	2401	615	45	1559
Window-cleaner	E. E. Thorpe	390,723	Oct. 9	731	192	45	153
Window-clearing apparatus	D. G. Richards	387,919	Aug. 14	1095	289	44	790
Window-dresser	G. F. Hall	388,776	Aug. 28	2405	648	44	1054
Window-frame	A. Severson	389,908	Sept. 25	1695	448	44	1418
Window-frame	J. G. Wilson	390,423	Oct. 2	314	83	45	67
Window-frame	A. Wueber and J. L. Lammers	379,920	Mar. 20	1585	417	42	1282
Window frame and sash	J. E. Jones	376,959	Jan. 24	1794	471	42	365
Window frame and sash	M. Tuchfeld	390,919	Oct. 9	1009	265	45	204
Window-frames Attachment for	V. C. Overton	389,405	Sept. 11	919	249	44	1255
Window-glass setting	J. V. Auth	377,474	Feb. 7	191	45	42	532
Window-guard	O. C. Rife	379,332	Mar. 13	681	184	42	1100
Window-guard	J. Sheehan and J. O. Kleemann	394,020	Dec. 4	414	111	45	1150
Window hanger or ling	A. Osterberg	389,241	Sept. 11	685	174	44	1210
Window-jamb	J. Booth	386,182	July 17	1246	332	44	259
Window-screen	J. A. Baldwin	378,997	Mar. 6	204	55	42	1005
Window-screen	W. J. Connell	377,991	Feb. 14	977	255	42	698
Window-screen	M. H. Dehner	390,656	Oct. 9	637	170	45	135
Window-screen	T. W. Dowling	380,747	Apr. 10	664	183	43	142
Window-screen	T. W. Dowling	390,117	Sept. 25	2006	534	44	1481
Window-screen	G. H. Gould	387,781	Aug. 14	877	226	44	747
Window-screen	H. H. Greenman	378,060	Feb. 21	1116	292	42	733
Window-screen	J. M. Hommel	394,489	Dec. 11	1110	289	45	1292
Window-screen	P. Miller	389,401	Sept. 11	913	239	44	1254
Window-screen	H. Speer	383,155	May 22	1912	500	43	908
Window-screen	G. Willard and L. T. Wilson	394,236	Dec. 11	742	196	45	1222
Window screen and fixture	G. H. Gould	378,587	Feb. 28	1863	492	42	884
Window-screen fixture	E. H. Ambler	391,106	Oct. 16	1308	349	45	267
Window-shade	G. L. Castner	386,961	July 31	2426	637	44	503
Window-shade	W. W. Whitehead	394,235	Dec. 11	740	196	45	1221
Window-shade attachment	C. Niss, Jr.	390,392	Oct. 2	278	73	45	59
Window-shade bracket	T. Gorsuch	378,775	Aug. 28	2404	648	44	1054
Window-shade-bracket holder	A. B. Dunkle	394,644	Dec. 18	1350	360	45	1355
Window-shades. Bottom bar for	M. A. Higgins	383,041	Aug. 21	1287	348	44	836
Window-shades to rollers. Attaching	S. Harlsborn	391,044	Oct. 16	1223	325	45	251
Window-shelf fastening	F. and E. A. Cameron	392,257	Nov. 6	117	30	45	617
Window-sill	H. Breuer	376,940	Jan. 24	1768	465	42	360
Window. Storm	C. Dibbern and R. C. Krüger	391,405	Oct. 23	1719	458	45	353
Window-ventilator	T. Bury	377,798	Feb. 14	712	180	42	646
Window-ventilator	C. R. Long	383,582	May 29	2549	673	43	1034
Windows. Attachment for	C. C. MacKubin	380,126	Mar. 27	1893	504	42	1352
Windows. Curtain or lambrequin support for	C. C. Bauer and F. H. Frankenberg	392,774	Nov. 13	890	227	45	773
Windows. Device for raising or lowering	W. E. Horne	377,457	Feb. 7	164	38	42	526
Windows. Stand for cleaning	F. Meyer	386,927	July 31	2379	625	44	494
Wire-annealing apparatus	F. H. Daniels	385,247	June 26	2110	540	43	1554
Wire. Apparatus for tempering	E. J. Watson	378,746	Feb. 28	2080	548	42	924
Wire apron	M. A. Sutherland	389,261	Sept. 11	707	189	44	1215
Wire band. Spring	J. Jackson	381,017	Apr. 10	1080	286	43	218
Wire barb	M. Greene	380,884	Apr. 10	876	235	43	180
Wire. Barb	C. D. Rogers	376,418	Jan. 10	979	256	42	195
Wire. Barbed	J. W. Griswold	377,252	Jan. 31	2215	585	42	455
Wire bending and forming machine	S. T. Newman	381,999	June 26	1724	447	43	1475
Wire-bending implement	D. W. Norris	385,318	June 26	2228	571	43	1576
Wire-bending tool	F. Brune	394,331	Dec. 11	890	234	45	1252
Wire clamps. Machine for forming	A. Owen	392,878	Nov. 13	1032	265	45	892
Wire-cloth	H. Atkins	383,791	May 29	2869	754	43	1098
Wire-cloth holder	W. A. Tea	381,294	Apr. 17	1494	403	43	307
Wire coil. Ornamental	L. M. Devere	382,220	May 1	499	129	43	606
Wire-coiling machine	A. Owen	393,920	Dec. 4	275	74	45	1124
Wire-coiling machine	D. F. Stamhaugh	376,685	Jan. 17	1381	363	42	278
Wire-cutter	P. W. Clark	380,618	Apr. 3	468	133	43	95
Wire-cutting machine	A. Owen	390,515	Oct. 2	450	117	45	91
Wire. Device for tightening barb	B. L. Mitchell	379,486	Mar. 13	909	245	42	1145
Wire-drawing die	J. B. Jenkins	382,650	May 8	1175	303	43	744
Wire-drawing. Fatty compound for	F. Vogel	390,369	Oct. 2	99	45	42	23
Wire-drawing machine	G. G. Blakeslee	382,861	May 15	1457	383	43	810
Wire-drawing machine	M. F. Roberts	377,864	Feb. 14	793	202	42	660
Wire fabrics. Finishing woven	S. T. and W. S. Thomas	386,761	July 24	2091	549	44	431
Wire fabrics. Machine for manufacturing	F. Hainsworth	379,013	Mar. 6	223	60	42	1008
Wire for the market. Preparing spools of	W. Wallace	387,836	Aug. 14	958	249	44	764
Wire-forming machine	A. Owen	390,514	Oct. 2	448	116	45	91
Wire-forming machine	A. Owen	390,893	Oct. 9	967	255	45	196
Wire gate	A. J. Cointe	383,705	May 29	2721	718	43	1072
Wire gate	E. R. Potter	380,591	Apr. 3	429	122	43	88
Wire-gripper	B. Erbe	380,749	Apr. 10	666	184	43	142

*Alphabetical list of inventions—Continued.*

Invention	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Wire-holder.....	B. J. Carroll.....	380,183	Mar. 27	1964	524	42	1367
Wire hook.....	P. Miles.....	392,624	Nov. 13	665	166	45	728
Wire. Ingot for making seamless plated.....	L. L. Burdon.....	391,736	Oct. 23	2168	585	45	445
Wire into sections. Machine for cutting.....	W. E. Badger.....	394,950	Dec. 25	1897	491	45	1465
Wire-joining machine.....	O. M. Pond and J. Provan.....	378,176	Feb. 21	1249	329	42	757
Wire-joint.....	W. A. Reddick.....	387,447	Aug. 7	372	96	44	646
Wire. Lubricating.....	W. H. Sawyer.....	380,055	Mar. 27	1791	478	42	1331
Wire machine. Barb.....	L. J. Creelius.....	387,710	Aug. 14	780	199 200	44	728
Wire machine Barb.....	C. D. Rogers.....	376,417	Jan. 10	973	254 255	42	194
Wire. Machine for cold-rolling.....	H. A. Williams.....	381,311	Apr. 17	1522	410 411	43	313
Wire. Machine for covering.....	W. H. Sawyer.....	386,561	July 24	1832	481	44	379
Wire. Machine for covering and insulating.....	J. D. Thomas.....	384,404	June 12	845	422	43	1290
Wire. Machine for forming fabrics from.....	D. C. Stover and O. E. Winger.....	376,560	Jan. 17	1178	310 311	42	240
Wire. Machine for reeling and unreeling.....	A. L. Whitten.....	391,497	Oct. 23	1846	494	45	379
Wire. Machine for screw-threading.....	L. Goddu.....	385,801	July 10	697	181	44	144
Wire. Making.....	W. A. Sweet.....	383,323	May 22	2159	570	43	954
Wire. Manufacture of.....	E. Wheeler.....	378,031	Feb. 14	1034	270	42	709
Wire mat.....	F. Hainsworth.....	386,126	July 17	1167	311	44	243
Wire mat.....	W. R. Pitt.....	378,214	Feb. 21	1301	345	42	768
Wire mat. Woven.....	H. H. Schleber.....	383,772	May 29	2840	747	43	1092
Wire nail.....	F. L. Bryant.....	375,866	Jan. 3	183	51	42	40
Wire-netting.....	W. A. Sweet.....	376,791	Jan. 24	1560	409	42	321
Wire-netting.....	B. Scarles.....	385,143	June 26	1958	501	43	1523
Wire-netting.....	B. Scarles.....	388,001	Aug. 14	1222	332	44	816
Wire-netting machine.....	B. Scarles.....	380,664	Apr. 3	534	147 148	43	107
Wire-netting machine.....	B. Scarles.....	380,665	Apr. 3	540	148	43	109
Wire-netting. Machine for the manufacture of.....	B. Scarles.....	387,739	Aug. 14	821	212	44	736
Wire or conductor. Covered or insulated.....	L. F. Requa.....	375,952	Jan. 3	305	62	42	63
Wire. Pointing articles of.....	H. A. Williams.....	390,636	Oct. 2	605	161	45	122
Wire-polishing machine.....	L. Baumeister.....	380,162	Mar. 27	1935	516	42	1361
Wire. Reducing and finishing.....	J. Withington.....	377,000	Jan. 24	1847	.....	42	376
Wire-reel.....	C. B. Ramsey.....	376,913	Jan. 24	1732	455	42	354
Wire-reel.....	W. L. Wilson and E. Walton.....	388,383	Aug. 21	1849	401	44	941
Wire-rod-mill guide.....	H. Roberts.....	381,582	Apr. 24	1927	508	43	410
Wire-rod mills. Reel for.....	H. Roberts.....	382,492	May 8	930	236	43	695
Wire-rod-reel-discharging mechanism.....	F. H. Daniels.....	386,530	July 24	1779	470	44	372
Wire-rod-reeling machine.....	C. H. Morgan.....	381,408	Apr. 17	1666	446 447	43	342
Wire-rod-reeling machine.....	H. A. Young.....	381,199	Apr. 17	1364	364 365	43	281
Wire rods. Device for drawing.....	A. P. Baldwin and R. Hadfield.....	393,808	Dec. 4	105	29	45	1093
Wire rods. Reeling apparatus for.....	F. H. Daniels.....	379,104	Mar. 6	356	101 102	42	1032
Wire. Rolls for making barbed.....	M. J. Baumbach.....	381,320	Apr. 17	1533	413	43	315
Wire-rope clamp.....	O. Crosby.....	388,840	Sept. 4	46	13	44	1081
Wire-rope-closing machine. Vertical.....	J. Withington.....	383,088	May 15	1812	473 474	43	878
Wire-rope-coupling device.....	A. Bleichert.....	380,983	Apr. 10	1035	274	43	210
Wire-rope. Delivery and stretching mechanism for machines for the manufacture of.....	J. Withington.....	383,087	May 15	1811	472 473 474 475	43	877
Wire-rope lines. Grip for elevated.....	A. Bleichert.....	380,982	Apr. 10	1032	272 273 274	43	209
Wire-rope lines. Rail for elevated.....	A. Bleichert.....	380,984	Apr. 10	1036	274	43	210
Wire-rope. Machine for making.....	W. Hewitt.....	390,967	Oct. 9	1081	286 287	45	218
Wire-rope. Machine for making.....	W. Hewitt.....	390,968	Oct. 9	1087	287 288 289	45	218
Wire-rope-making machine.....	A. S. Hallidie.....	381,365	Apr. 17	1604	429	43	329
Wire-rope or cable.....	H. W. Farley.....	388,656	Aug. 28	2226	597	44	1021
Wire-rope tramway.....	E. C. Bacon.....	380,011	Mar. 27	1727	463	42	1320
Wire screen, &c.....	J. Burkhardt.....	378,416	Feb. 21	1607	422	42	825
Wire screen, &c.....	D. Wesemann.....	383,161	May 22	1918	501	43	909
Wire. Splicing.....	E. P. Frederick.....	390,220	Oct. 2	40	11	45	11
Wire-splicing machine.....	W. L. Haag.....	383,178	May 22	1942	509	43	914
Wire-spooling machine.....	E. Earley.....	389,555	Sept. 18	1145	301	44	1304
Wire-spooling machine.....	W. H. Sawyer.....	385,684	July 3	523	136 137	44	102
Wire-stitching machine.....	C. L. Lasch.....	391,252	Oct. 16	1503	399	45	305
Wire strands. Making open-twist.....	J. Vermeulen.....	377,415	Feb. 7	109	22	42	515
Wire-stretcher.....	F. H. Birch.....	390,556	Oct. 2	508	133	45	102
Wire-stretcher.....	F. O. Bjungstad.....	378,036	Feb. 14	1040	272	42	710
Wire-stretcher.....	A. J. Burbank.....	394,674	Dec. 18	1429	373	45	1364
Wire-stretcher.....	C. M. Danielson.....	390,211	Oct. 2	24	7	45	8
Wire-stretcher.....	B. Erbe.....	380,750	Apr. 10	667	185	43	142
Wire-stretcher.....	C. E. Hunt, N. B. Helm, and H. L. Ferris.....	395,146	Dec. 25	2209	567	45	1524
Wire-stretcher.....	J. H. McMahon and D. D. Mangum.....	381,569	Apr. 24	1912	504	43	407
Wire-stretcher.....	J. R. Merideth.....	377,169	Jan. 31	2091	551	42	432
Wire-stretcher.....	A. S. Runyon.....	375,956	Jan. 3	311	83	42	64
Wire-stretcher.....	J. F. Shipley.....	380,531	Apr. 3	337	96	43	69
Wire-stretcher.....	S. K. Warren.....	379,669	Mar. 20	1186	314	42	1205
Wire-stretcher.....	G. W. Williams.....	393,410	Nov. 27	1801	476	45	969
Wire stretcher and tension. Combined.....	M. F. Connett, Jr.....	381,462	Apr. 17	1752	468	43	357
Wire stretcher or clamp.....	W. Havens.....	384,255	June 12	623	168	43	1250

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Page.	Vol.	Page.
Wire-stretching machine .....	C. V. Pugh .....	384,329	June 19	1622	421	43	1446
Wire. Tempering Bessemer-steel .....	E. W. Gillon .....	379,573	Mar. 20	1048	278	42	1178
Wire-tension device .....	W. M. Augustino .....	385,987	July 10	967	257	44	198
Wire-tightener .....	D. T. Brown .....	388,626	Aug. 28	2184	587	44	1013
Wire-tightener .....	E. A. Chase .....	385,998	July 10	979	261	44	200
Wire-tightener .....	W. M. Graham .....	391,243	Oct. 16	1494	397	45	303
Wire-tightener .....	J. W. Wear .....	376,694	Jan. 17	1398	368	42	281
Wire-tightener .....	J. W. Wear .....	376,695	Jan. 17	1399	368	42	281
Wire-tightener and staple driver and extractor. Combined .....	F. G. McHenry and H. Martin .....	383,970	June 5	192	56	43	1157
Wire twisting and winding mechanism .....	B. Scarles .....	380,667	Apr. 3	544	149	43	109
Wire-twisting tool .....	C. B. Rumsey .....	382,666	May 8	1199	311	43	749
Wire-unwinding apparatus .....	H. A. Bindeman .....	377,422	Feb. 7	117	24, 25	42	517
Wire-weaving looms. Lathe-pitman for .....	S. O. Greening .....	383,879	June 5	41	14	43	1129
Wire winding and unwinding machine .....	J. W. Rodger and R. J. Matheson .....	376,415	July 17	1600	420	44	329
Wire with layers of different materials. Machine for covering .....	J. T. Van Gestel .....	380,610	Apr. 3	457	130	43	93
Wire-working machines. Reel-stand and stop for .....	J. J. Crecelius .....	388,479	Aug. 28	1978	531	44	974
Wires. Connecting filaments to leading-in .....	H. Lemp .....	392,158	Oct. 30	2816	764	45	583
Wires or coils through flexible tubes. Apparatus for threading .....	W. H. Sawyer .....	380,054	Mar. 27	1789	478	42	1331
Wires. Tightener and fastener for .....	A. L. Thompson .....	381,295	Apr. 17	1494	403	43	307
Wood. Apparatus for impregnating .....	P. H. Dudley .....	381,682	Apr. 24	2073	542	43	440
Wood carving and molding machine .....	C. L. Goehring .....	394,766	Dec. 18	1581	{ 414 415 416 }	45	1398
Wood, &c. Composition for preserving .....	P. L. Quarante and E. D'Escalonne .....	380,593	Apr. 3	432	43	88	
Wood-cutting machine .....	T. S. Crane .....	379,451	Mar. 13	851	{ 230 231 }	42	1134
Wood-cutting machine .....	A. M. Lemke .....	392,126	Oct. 30	2766	751	45	573
Wood-cutting machine .....	W. Merrill .....	384,704	June 19	1303	340	43	1385
Wood-drying kiln .....	A. and E. L. Wyckoff .....	388,102	Aug. 21	1386	373	44	834
Wood-drying kiln .....	J. A. R. Wyman .....	379,145	Mar. 6	409	{ 115 116 }	42	1043
Wood-joint .....	J. Collins .....	376,236	Jan. 10	725	193	42	149
Wood. Machine for bundling kindling .....	L. Ziegler .....	389,996	Sept. 25	1820	482	44	1442
Wood. Machine for cutting and shaping .....	C. L. Goehring .....	394,762	Dec. 18	1565	{ 409 410 }	45	1394
Wood. Marbleized .....	W. S. Ingraham .....	387,977	Aug. 14	1182	321	44	807
Wood. Marbleizing .....	W. S. Ingraham .....	387,885	Aug. 14	1029	270	44	777
Wood or other material. Producing figures on the surface of .....	C. L. Goehring .....	394,767	Dec. 18	1586	{ 416 417 181 182 }	45	1399
Wood-polishing machine .....	J. E. Carpenter .....	392,663	Nov. 13	718	{ 181 182 }	45	737
Wood. Preserving .....	J. C. Mallonee .....	386,999	July 31	2478	651	44	514
Wood. Preserving .....	G. Speiz .....	387,375	Aug. 7	270	44	624	
Wood rack and carrier .....	W. H. Moody .....	388,434	Aug. 28	1918	512	44	961
Wood-splitting machine .....	C. H. Barrows .....	383,690	May 29	2696	713	43	1066
Wood to be afterward bent. Apparatus for steam- ing .....	R. T. Pettelbone .....	385,878	July 10	822	217	44	167
Wood turning and molding machine .....	C. L. Goehring .....	378,787	Feb. 28	2136	565	42	935
Wood-work. Manufacturing mosaic .....	W. J. Kelley .....	392,809	Nov. 13	944	241	45	783
Wood-work. Mosaic .....	W. J. Kelley .....	392,810	Nov. 13	945	{ 241 242 }	45	783
Wood-worker .....	W. H. Doane .....	392,591	Nov. 13	611	154	45	718
Wood-worker. Variety .....	W. H. Doane .....	391,589	Oct. 23	1969	531	45	405
Wood working and planing machine .....	E. H. Lee .....	385,125	June 26	1933	493	43	1518
Wood-working machine .....	O. R. Debbroth .....	390,760	Oct. 9	783	{ 208 209 }	45	162
Wood-working machine .....	J. P. Jamison .....	387,418	Aug. 7	321	82, 83	44	634
Wood-working machine .....	L. Judge .....	392,343	Nov. 6	244	62, 63	45	649
Wood-working machine .....	E. W. Snedeker .....	382,330	May 8	675	171	43	647
Wood-working machine .....	S. F. Tibbetts .....	388,320	Aug. 21	1745	{ 466 467 }	44	923
Wooden relief-plates. Manufacturing .....	C. Wittkowsky .....	379,301	Mar. 13	637	173	42	1092
Wool. Apparatus for carbonizing the vegetable mat- ter in .....	C. Schreiber .....	380,598	Apr. 3	442	125	43	99
Wool-burring machine .....	W. Dearborn .....	390,949	Oct. 9	1050	277	45	212
Wool-burring machine .....	W. Dearborn .....	393,746	Dec. 4	17	6, 7	45	1076
Wool-burring machine .....	F. G. and A. C. Sargent .....	393,588	Nov. 27	2071	542	45	1024
Wool. Carbonizing vegetable matter in .....	C. Schreiber .....	380,599	Apr. 3	443	43	90	
Wool-combing machine .....	W. Lund. (Reissue) .....	10,930	May 15	1822	476	43	879
Wool-drying apparatus .....	W. Nelson and E. Bowen .....	394,713	Dec. 18	1487	388	45	1377
Wool-drying apparatus .....	W. Nelson and E. Bowen .....	394,714	Dec. 18	1489	389	45	1377
Wool. Machine for extracting oils from .....	F. A. Owen and J. A. Harvey .....	379,808	Mar. 20	1399	{ 372 373 }	42	1248
Wool. Machinery for washing .....	W. Cook .....	383,515	May 29	2453	650	43	1015
Wool scouring and washing machinery .....	J. and W. McNaught, Jr .....	385,761	July 10	648	{ 168 169 170 }	44	134
Wool-washing machine .....	S. Davis .....	376,866	Jan. 24	1671	436	42	341
Wool-washing machine. Automatic .....	F. Williams .....	380,470	Apr. 3	241	65	43	49
Work-bench .....	J. Kelly .....	386,831	July 31	2238	588	44	467
Woven fabric and package made therefrom .....	M. A. Hamilton .....	379,219	Mar. 13	521	146	42	1070
Woven pile fabric .....	J. Dobson .....	378,577	Feb. 28	1848	488	42	881
Wrapping machine. Package .....	W. S. Jarboe .....	394,772	Dec. 18	1598	{ 418 419 420 }	45	1491
Wrench:							
See Chain-wrench. Vehicle-wrench.							
Pipe-wrench. Wagon-wrench.							
Wrench .....	J. D. Abbott .....	383,334	May 22	2164	572	43	955
Wrench .....	G. M. Allen .....	379,627	Mar. 20	1127	298	42	1193
Wrench .....	F. Armstrong and N. W. Vaudegrift .....	392,300	Nov. 6	174	45	45	627

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Wrench	H. W. Atwater	376,504	Jan. 17	1106	290	42	297
Wrench	D. A. B. Bailey and N. McGillivray	393,321	Nov. 20	1670	441	45	934
Wrench	W. H. Brock	389,685	Sept. 18	1353	355	44	1342
Wrench	B. T. Bryan	384,743	June 19	1350	352	43	1394
Wrench	J. Byrne	379,504	Mar. 13	938	252	42	1150
Wrench	M. E. Campfield	379,445	Mar. 13	842	227	42	1133
Wrench	M. E. Campfield	380,859	Apr. 10	834	226	43	173
Wrench	J. H. Christie	381,213	Apr. 17	1378	368	43	284
Wrench	J. H. and F. L. Coes	382,138	May 1	384	100	43	583
Wrench	H. D. Cone	376,584	Jan. 17	1212	320	42	248
Wrench	C. S. De Witt	391,588	Oct. 23	1968	530	45	405
Wrench	J. L. Finch	378,299	Feb. 21	1443	376	42	792
Wrench	A. F. M. Garrett and F. Frank	383,049	May 15	1756	454	43	867
Wrench	G. Gavin and L. W. Crome	378,584	Feb. 28	1860	491	42	883
Wrench	W. L. Gibson	378,585	Feb. 28	1861	491	42	883
Wrench	H. G. T. Glazebrook	387,873	Aug. 14	1009	263	44	773
Wrench	J. A. v. Gyllenberg	392,152	Oct. 30	2809	762	45	581
Wrench	H. W. Hackley	377,827	Feb. 14	747	189	42	651
Wrench	B. R. Hagar	382,975	May 15	1616	423	43	841
Wrench	F. S. Hazelton and C. Leach	377,755	Feb. 14	610	157	42	684
Wrench	J. G. Hoffman	391,532	Oct. 23	1892	508	45	399
Wrench	B. F. Lancaster	376,891	Jan. 24	1702	445	42	347
Wrench	J. S. Lang	384,451	June 12	911	237	43	1302
Wrench	R. L. Mabrey	385,464	July 3	195	51	44	39
Wrench	E. G. Mead	389,400	Sept. 11	912	238	44	1254
Wrench	J. P. Mitchell	385,366	July 3	42	13	44	11
Wrench	W. C. Perkins	384,467	June 12	928	241	43	1306
Wrench	H. P. Roberts	376,991	Jan. 24	1834	483	42	373
Wrench	A. Roland	379,984	Mar. 27	1679	448	42	1311
Wrench	H. M. Ryder	380,353	Apr. 3	75	24	43	18
Wrench	J. M. Silvis	387,456	Aug. 7	381	99	44	648
Wrench	A. M. Spaulding and H. L. Case	390,408	Oct. 2	297	78	45	62
Wrench	W. L. Tobey	380,735	Apr. 10	630	180	43	139
Wrench	V. J. Van Horn	376,564	Jan. 17	1183	312	42	241
Wrench	O. C. White	390,422	Oct. 2	314	82	45	67
Wrench and bolt-cutter	J. A. Chapman	392,183	Nov. 6	11	4	45	597
Wrench-blanks. Machine for truing and dressing	M. E. Campfield	395,213	Dec. 25	2113	593	45	1542
Wrenches. Machine for forming screw-blanks for	L. Coes	393,618	Nov. 27	2127	556	45	1034
Wringer:							
See Clothes-wringer. Mop-wringer.							
Wringer	J. L. Miller	381,158	Apr. 17	1307	349	43	271
Wringer	A. F. White and M. M. Flynn	380,234	Mar. 27	2037	544	42	1381
Writing-frame	C. W. King	391,747	Oct. 23	2180	588	45	446
Writing-machine for the blind	J. F. McElroy	389,756	Sept. 18	1455	361	44	1363
Writing on unruled paper. Apparatus to aid in	E. P. Glascock	394,849	Dec. 18	1731	449	45	1425
Yard-stick holder	M. Levy	377,526	Feb. 7	271	68	42	547
Yarn and for testing the strength of the same. De- vice for cleaning and compacting	H. Offroy and C. Pfeiffer	388,298	Aug. 21	1708	456	44	917
Yarn. Balance apparatus for ascertaining counts or numbers of	E. Stanb	380,826	Apr. 10	783	214	43	164
Yarn-cleaning device	H. F. West	390,326	Oct. 2	176	48	45	38
Yarn, &c. Device for cleaning	H. F. West	390,323	Oct. 2	169	47	45	37
Yarn, &c. Device for cleaning	H. F. West	390,324	Oct. 2	171	47	45	37
Yarn, &c. Device for cleaning	H. F. West	390,325	Oct. 2	173	47	45	37
Yarn for filling, &c. Preparing	R. C. Nowell	388,436	Aug. 28	1919	512 513 444 445	44	962
Yarn-hauking machine	J. Dart and W. I. Lewis	388,267	Aug. 21	1666	444 445	41	908
Yarn. Machine for making slivers for the produc- tion of clouded	J. F. Henry	384,624	June 19	1177	310	43	1360
Yarn. Making slivers for the production of clouded.	J. F. Henry	384,690	June 19	1274	334	43	1379
Yarn-reel	C. S. Foster	376,590	Jan. 17	1224	322	42	250
Yarns. Feed-rollers for making fancy	T. A. Boyd	386,623	July 24	1878	501 502 95 96 97	44	396
Yarns or threads. Mechanism for testing	R. Wallwork	379,088	Mar. 6	332	96 97	42	1028
Yoke coupling. Neck	J. J. Henzie, Jr.	391,048	Oct. 16	1228	326	45	252
Yoke fastening. Neck	A. P. and W. C. Koch	380,492	Apr. 3	270	74	43	56
Yoke for connecting animals	W. Carmichael	381,332	Apr. 17	1549	418	43	318
Yoke guard. Neck	H. Kniphals	376,099	Jan. 10	525	140	42	112
Yoke. Neck	W. B. Chapman	392,587	Nov. 13	608	153	45	717
Yoke. Neck	J. Edgar	376,868	Jan. 24	1673	437	42	341
Yoke. Neck	J. Hawes	391,846	Oct. 30	2343	635	45	429
Yoke. Neck	S. R. Mott, Jr.	393,918	Dec. 4	273	74	45	1124
Yoke. Neck	J. Shatto	395,007	Dec. 25	1992	514	45	1483
Yoke. Ox	W. W. Herren	375,814	Jan. 3	123	35	42	29
Yoke. Ox	J. S. Valentine	382,570	May 8	1052	268	43	720
Yoke ring. Neck	R. K. Burt	388,758	Aug. 28	2375	640	41	1049
Yokes for cable roads. Construction of subway	S. Gibson	382,969	May 15	1608	420 421	43	830
Zinc. Amalgamating	E. M. Hewett	385,309	June 26	2215	325 326	43	1574
Zinc. Apparatus for condensing metallic	E. Walsh, Jr.	389,617	Sept. 18	1243	326 538	44	1322
Zinc chloride, &c. Production of	L. Paget	393,578	Nov. 27	2057	538	45	1021
Zinc from its ores. Wet process of extracting pure	C. F. Crousehuire	379,764	Mar. 20	1323	42	1233	
Zinc from ores. Extraction of	A. H. Low	378,688	Aug. 14	749	44	722	
Zinc from the vapors or fumes arising in the process of zinc-smelting. Condensing metallic	E. Walsh, Jr.	389,618	Sept. 18	1245	326	44	1322
Zinc. Manufacturing	H. A. Hunicke	393,832	Dec. 4	142	45	1099	
Zinc ores. Reducing	G. M. Westman	383,202	May 22	1972	518 519	43	920
Zither	F. Wigand	390,830	Oct. 9	883	234	45	180

# ALPHABETICAL LIST OF DESIGNS.

Design.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Advertising-card	C. H. Durphy	18,509	Aug. 7	44	572
Advertising-picture frame	F. H. Durell	18,265	Apr. 24	43	394
Advertising-staff	G. Fuchs	18,188	Mar. 20	42	1172
Apron, Miss's	L. Rors	18,319	May 15	43	760
Badge	E. A. Crawford	18,407	June 26	43	1160
Badge	J. K. Davidson	18,729	Nov 13	45	714
Badge	A. M. Ebbets	18,730	Nov 13	45	714
Badge	J. D. Fahnestock	18,502	Aug. 7	44	572
Badge	H. Howard	18,511	Aug. 7	44	572
Badge	S. C. Howard	18,512	Aug. 7	44	572
Badge	P. D. Keyser	18,393	June 19	43	1352
Badge	J. H. McMath	18,015	Jan. 10	42	100
Badge	W. T. Mersereau	18,529	Aug. 14	44	702
Badge	J. M. Murphy	18,194	Mar. 20	42	1172
Badge	E. F. Nottingham	18,468	July 17	44	236
Badge	P. Pollard	18,826	Dec. 25	45	1464
Badge	M. I. Sandes	18,745	Nov 20	45	838
Badge	A. A. Southwick	18,609	Sept. 11	44	1190
Badge	K. Stachowski	18,590	Sept. 4	44	1072
Badge	J. Steiner	18,456	July 10	44	112
Badge	F. H. C. Woolley	18,184	Mar. 13	42	1066
Badge for hats	C. J. Heller	18,249	Apr. 10	43	120
Badge or banner	J. E. Brophy and W. E. Harvey	18,486	July 31	44	452
Bags, &c. Material for hand-	H. Mehl	18,002	Jan. 3	42	2
Banner, &c.	C. H. Cooper	18,598	Sept. 11	44	1190
Barber's dressing-case	T. J. Collins	18,022	Jan. 24	42	300
Basket	W. Halcy	18,566	Aug. 28	44	948
Basque	H. F. Duke	18,389	June 19	43	1351
Basque, Lady's	M. Turner	18,323	May 15	43	760
Bed case, Folding-	C. Tenfel	18,813	Dec. 11	45	1196
Bells, Gong for table-	A. Mayer	18,493	July 31	44	452
Bicycle-frame	W. E. Smith	18,746	Nov 20	45	838
Bicycle-frame	J. M. Starley	18,820	Dec. 18	45	1324
Biscuit or cracker	D. F. Stauffer	18,580	Aug. 28	44	948
Blanket, Horse-	G. R. Ayres	18,485	July 31	44	452
Blouse, Lady's	H. F. Duke	18,460	July 17	44	236
Bonnet and millinery stand	J. B. Clifford	18,379	June 12	43	1242
Bonnet, Child's	E. J. Lynch	{ 18,756 } { 18,757 }	Nov 27	45	949
Book-cover protector	C. W. Stiff and J. Watrous	18,298	May 1	43	514
Bottle	R. M. Atwater	18,021	Jan. 24	42	300
Bottle	R. M. Atwater	18,221	Apr. 3	43	2
Bottle	E. W. Bloomingdale	18,718	Nov. 6	45	594
Bottle	W. P. Crary	18,520	Aug. 14	44	702
Bottle	A. M. Foster	18,309	May 15	43	759
Bottle	W. M. Garton	18,390	June 19	43	1351
Bottle	A. Kohn	18,572	Aug. 28	44	948
Bottle	B. I. Mott	18,495	July 31	44	452
Bottle and spreading tip	W. W. Beach	18,498	Aug. 7	44	572
Bottle, Nursing-	A. Geyer	18,420	July 3	44	2
Bottle or jar	T. B. Atterbury	{ 18,218 } { to } { 18,220 }	Apr. 3	43	2
Bottle or jar cover	C. A. Tatun	18,005	Jan. 3	42	2
Bottle-stopper	S. S. Newton	18,105	Feb. 21	42	727
Bottle-stopper	S. P. Weld	18,406	June 19	43	1352
Box	F. Davenport	18,623	Sept. 25	44	1403
Box	O. P. Hamberg and G. O. Weding	18,248	Apr. 10	43	120
Box	W. Schreyer	18,182	Mar. 13	42	1066
Box	C. E. Thompson	18,747	Nov. 20	45	838
Box	S. Zinn	{ 18,683 } { 18,684 }	Oct. 9	45	130
Bracelet	S. Cottle	18,739	Nov 20	45	838
Bracelet	L. P. Juvet	18,189	Mar. 20	42	1172
Bracket	C. H. Harkins	18,814	Dec. 18	45	1324
Braid	V. Schuck	{ 18,588 } { 18,589 }	Sept. 4	44	1072
Braid	V. Schuck	18,641	Sept. 25	44	1404
Bridle-front	F. M. Livingston	18,480	July 24	44	316
Broom-ferrule	A. Walrath	18,110	Feb. 21	42	727
Broom holder, Whisk-	G. C. Varwig	18,374	June 5	43	1120
Brush	L. D. Grant	18,261	Apr. 17	43	254
Brush, Bath-	C. J. Bailey	18,222	Apr. 3	43	2
Brush case, Air-	C. L. Burdick	18,329	May 23	43	890
Buckle	G. F. Eberhard	{ 18,066 } { 18,067 }	Feb. 21	42	727
Builders' hardware, Ornamentation of	T. Village	18,357	May 29	43	987
Burial-casket	J. Einstfield	18,009	Jan. 10	42	100
Burial-casket	J. Maxwell	18,193	Mar. 20	42	1172
Burial-casket	W. A. Sparks	18,172	Mar. 6	42	976
Burial-casket	L. Stein	18,413	June 26	43	1460

*Alphabetical list of designs—Continued.*

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Burial-casket top.....	W. J. Noble.....	18,030	Jan. 24	42	360
Burner. Nursery.....	C. T. Martin.....	18,274	Apr. 24	43	394
Button.....	A. P. Davis.....	18,740	Nov. 20	45	838
Button.....	J. Frick.....	18,687	Oct. 16	45	238
Button.....	I. L. Goff.....	18,628	Sept. 25	44	1403
Button.....	I. C. Hine.....	18,743	Nov. 20	45	838
Button.....	R. Liebmann.....	18,450	July 10	41	112
Button.....	R. Liebmann.....	18,505	Aug. 7	44	572
Button.....	R. Liebmann.....	18,506	Aug. 7	44	572
Button-back.....	S. Cottle.....	18,515	May 22	43	890
Button. Campaign.....	J. M. Jones.....	18,331	Aug. 28	44	948
Button. Campaign.....	R. Liebmann.....	18,571	Aug. 28	44	948
Button-fastener.....	W. G. Slater.....	18,574	Apr. 24	43	394
Buttoner. Glove.....	F. W. Larom.....	18,281	Dec. 4	45	1072
Cake ornament.....	J. A. Kiesele.....	18,783	Mar. 13	42	1066
Calendar.....	F. Brackett.....	18,180	Feb. 21	42	727
Calendar.....	F. Mitchell.....	18,065	June 5	43	1120
Cane-handle.....	F. R. Kaldenberg.....	18,373	Dec. 4	45	1072
Cane-head.....	J. Eichel.....	18,782	Aug. 21	44	826
Cans, jars, &c. Top for.....	S. G. Curtice.....	18,540	Sept. 25	44	1403
Cap.....	S. Roggenburger.....	18,622	Oct. 30	45	464
Card.....	W. A. Kelsey.....	18,710	Jan. 24	42	300
Card. Campaign.....	F. E. Housh.....	18,025	Aug. 21	44	826
Card or letter rack.....	T. A. Crabtree.....	18,550	Aug. 14	44	702
Card. Pattern.....	B. C. Lockett.....	18,519	July 24	44	346
Carpet.....	M. P. Beale.....	18,481	Aug. 28	44	948
Carpet.....	J. Christie.....	18,559	May 15	43	759
Carpet.....	J. Christie.....	18,308	Aug. 14	44	702
Carpet.....	H. Fawcett.....	17,996	Jan. 3	42	2
Carpet.....	H. Fawcett.....	17,999	Jan. 10	42	100
Carpet.....	E. Fisher.....	18,010	Aug. 21	44	826
Carpet.....	E. Fisher.....	18,541	Aug. 28	44	948
Carpet.....	E. Fisher.....	18,563	Sept. 25	44	1403
Carpet.....	E. Fisher.....	18,625	Feb. 14	42	618
Carpet.....	J. L. Folsom.....	18,048	Feb. 21	42	727
Carpet.....	J. L. Folsom.....	18,058	Mar. 6	42	965
Carpet.....	J. L. Folsom.....	18,068	Apr. 3	43	2
Carpet.....	J. L. Folsom.....	18,097	Mar. 6	42	965
Carpet.....	J. L. Folsom.....	18,124	Apr. 3	43	2
Carpet.....	J. L. Folsom.....	18,152	Mar. 6	42	965
Carpet.....	J. L. Folsom.....	18,228	Apr. 3	43	2
Carpet.....	J. L. Folsom.....	18,234	Mar. 6	42	965
Carpet.....	O. Heinigke.....	18,154	Apr. 3	43	2
Carpet.....	O. Heinigke.....	18,155	June 19	43	1352
Carpet.....	O. Heinigke.....	18,235	Feb. 7	42	494
Carpet.....	O. Heinigke.....	18,392	Feb. 28	42	832
Carpet.....	E. H. Hill.....	18,038	Aug. 14	44	702
Carpet.....	E. H. Hill.....	18,039	Aug. 28	44	948
Carpet.....	H. Horau.....	18,113	Aug. 14	44	702
Carpet.....	H. Horau.....	18,523	Aug. 28	44	948
Carpet.....	H. Horau.....	18,524	Sept. 25	44	1403
Carpet.....	H. Horau.....	18,567	Nov. 27	45	949
Carpet.....	H. Horan.....	18,569	Mar. 6	42	965
Carpet.....	H. Horan.....	18,630	Apr. 3	43	2
Carpet.....	H. Horan.....	18,632	Mar. 6	42	965
Carpet.....	H. Hunt.....	18,754	Apr. 3	43	2
Carpet.....	H. Hunt.....	18,157	Aug. 28	44	948
Carpet.....	H. Hunt.....	18,162	Sept. 25	44	1403
Carpet.....	W. L. Jacobs.....	18,236	Feb. 7	42	494
Carpet.....	W. L. Jacobs.....	18,570	Sept. 25	44	1403
Carpet.....	W. L. Jacobs.....	18,634	Nov. 27	45	949
Carpet.....	A. Lees.....	18,635	Feb. 7	42	494
Carpet.....	J. McMaun.....	18,040	Aug. 14	44	702
Carpet.....	J. McMaun.....	18,637	Aug. 28	44	948
Carpet.....	J. McMaun.....	18,638	Sept. 25	44	1404
Carpet.....	J. McMaun.....	18,758	Nov. 27	45	949
Carpet.....	T. E. Meagher.....	18,041	Feb. 7	42	494
Carpet.....	T. E. Meagher.....	18,046	Feb. 21	42	727
Carpet.....	T. E. Meagher.....	18,102	Feb. 28	42	832
Carpet.....	E. Poole.....	18,115	May 1	43	514
Carpet.....	E. Poole.....	18,294	Aug. 14	44	702
Carpet.....	E. Poole.....	18,534	Aug. 28	44	948
Carpet.....	E. Poole.....	18,575	Sept. 25	44	1404
Carpet.....	E. Poole.....	18,578	Nov. 27	45	949
Carpet.....	E. Poole.....	18,639			
Carpet.....	E. Poole.....	18,764			



*Alphabetical list of designs—Continued.*

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Carpet	O. Righter	{ 18,106 } to { 18,109 }	Feb. 21	42	727
Carpet	O. Righter	{ 18,116 } to { 18,121 }	Feb. 28	42	832
Carpet	E. G. Sauer	{ 18,296 } to { 18,297 }	May 1	43	514
Carpet	E. G. Sauer	{ 18,765 } to { 18,166 }	Nov. 27	45	950
Carpet	W. E. Sayers	{ 18,168 } to { 18,552 }	Mar. 6	42	965
Carpet	C. W. Swapp	{ 18,557 } to { 18,557 }	Aug. 21	41	826
Carpet	C. W. Swapp	18,642	Sept. 25	44	1404
Carpet	C. W. Swapp	18,772	Nov. 27	45	950
Carpet	G. C. Wright	18,643	Sept. 25	41	1404
Carpet-sweeper casing	W. J. Drew	18,360	June 5	43	1120
Carpet-sweeper casing	W. J. Drew	18,380	June 12	43	1242
Carpet-sweeper casing	W. J. Drew	18,408	June 26	43	1460
Carriage-step	E. L. Howe	18,720	Nov. 6	45	594
Cash-register cabinet	W. G. Schickner	18,819	Dec. 18	45	1324
Casket-handle	D. Leonard	18,816	Dec. 18	45	1324
Caster. Furniture.	E. Garett	18,266	Apr. 24	43	394
Certificate. Business.	C. S. Garney	18,247	Apr. 10	43	120
Chair.	M. Roomo	18,786	Dec. 4	45	1072
Chair-back	L. A. Chichester	18,476	July 24	44	316
Chair-back	H. Matzen	18,824	Dec. 25	45	1464
Chair-brace	M. S. McQuarrie	18,607	Sept. 11	44	1190
Chair-cover.	G. Marchetti	{ 18,652 } to { 18,653 }	Oct. 2	45	2
Chair-cover.	G. Marchetti	18,652	Oct. 9	45	130
Chairs. Arm-rest for barbers'	T. A. Kochs	{ 18,525 } to { 18,526 }	Aug. 14	44	702
Chamber-vessel.	J. A. Davis	18,260	Apr. 17	43	251
Check or counter	W. M. Wellng	18,122	Feb. 28	42	832
Check or counter	W. M. Wellng	18,213	Mar. 27	42	1291
Checkrein-hook	G. S. Cascaden	18,561	Aug. 28	44	948
Christmas-tree ornament	P. Knorpp and G. A. Mayer	18,238	Apr. 3	43	2
Cigar lighter and cutter stand	J. Kanfmann	18,421	July 3	44	2
Cigar-stand and ash-receiver	F. W. Moulton	18,240	Apr. 3	43	2
Cigarette-case	L. W. Fairchild	18,779	Dec. 4	45	1072
Clamp-frame	F. A. Whitney	18,376	June 5	43	1120
Cloak. Infant's.	E. L. Jenkins	18,288	May 1	43	514
Clock-case	L. Krower	18,605	Sept. 11	44	1190
Clock-dial	A. Bannatyne	18,264	Apr. 24	43	394
Clock-dial	A. Bannatyne	18,299	May 8	43	636
Clock-dial	A. Bannatyne	{ 18,306 } to { 18,307 }	May 15	43	759
Clock-dial	O. Bartel	{ 18,282 } to { 18,283 }	May 1	43	514
Clock-dial	W. Lawson	18,272	Apr. 24	43	394
Clutches. Frame or support for friction.	H. W. Hill	18,443	July 10	44	112
Coat. Lady's	H. F. Duke	18,008	Jan. 10	42	100
Coat. Lady's	M. V. Kavanagh	18,216	Mar. 27	42	1294
Coat. Miss's	M. V. Kavanagh	18,165	Mar. 6	42	965
Coffee-mill box	M. B. Wilcox	18,243	Apr. 3	43	2
Coffee or tea pot.	L. J. Richards	18,355	May 29	43	987
Coffin-plate	O. McCarthy	18,273	Apr. 24	43	394
Coffin-screw	O. McCarthy	18,796	Dec. 11	45	1196
Collar	G. H. Barnard	18,539	Aug. 21	44	826
Collar	F. Beiermeister, Jr	18,726	Nov. 13	45	714
Collar	J. Byers	18,518	Aug. 14	44	702
Collar	J. M. Ide	18,699	Oct. 23	45	350
Comb.	P. Witteck	18,214	Mar. 27	42	1294
Comb. Curling and crimping.	G. A. Scott	18,787	Dec. 4	45	1072
Confectionery	A. Schwarzschild and N. Greenfield.	18,206	Mar. 27	42	1294
Cord.	L. Binns	18,244	Apr. 10	43	120
Cornice.	F. Koskul	18,448	July 10	44	112
Corset	J. Koon	18,573	Aug. 28	44	948
Corset	W. McCabe	18,825	Dec. 25	45	1464
Corset	E. S. Rosenbluth	18,031	Jan. 24	42	300
Corsets. Ornamentation of	L. Kraus	18,651	Oct. 2	45	2
Costume. Girl's	C. Sheils	18,063	Feb. 14	42	618
Costume. Girl's street	E. L. Jenkins	18,287	May 1	43	514
Costume. Lady's	H. F. Duke	18,023	Jan. 24	42	300
Costume. Lady's	H. F. Duke	{ 18,245 } to { 18,246 }	Apr. 10	43	120
Costume. Lady's	H. F. Duke	18,284	May 1	43	514
Costume. Lady's	M. Kent	18,252	Apr. 10	43	120
Costume. Lady's	M. B. Kent	18,289	May 1	43	514
Costume. Lady's	E. Moran	18,062	Feb. 14	42	618
Costume. Lady's	E. Moran	{ 18,317 } to { 18,318 }	May 15	43	760
Costume. Lady's	J. Sheils	18,016	Jan. 10	42	100
Costume. Lady's	J. Sheils	18,171	Mar. 6	42	966
Costume. Lady's	J. Sheils	18,207	Mar. 27	42	1294
Costume. Lady's	J. Sheils	18,305	May 8	43	636
Costume. Lady's	J. Sheils	18,321	May 15	43	760
Costume. Lady's	J. Sheils	18,346	May 22	43	800
Costume. Lady's	J. Sheils	18,356	June 12	43	1212
Costume. Lady's	M. Turner	18,174	Mar. 6	42	966
Costume. Lady's princess	E. Moran	18,291	May 1	43	514

*Alphabetical list of designs—Continued.*

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Costume. Miss's.....	M. B. Kent.....	18,060	Feb. 14	42	618
Costume. Miss's.....	M. B. Kent.....	18,335	May 22	43	890
Costume. Miss's.....	L. Soderholm.....	18,256	Apr. 10	43	120
Cuff. Shirt.....	D. O'Brien.....	18,343	May 22	43	890
Cultivator knife or shovel.....	C. J. Carlberg.....	18,596	Sept. 11	44	1190
Curtain fabric.....	C. Wheeler.....	18,749	Nov. 20	45	838
Curtains, draperies, &c. Fabric for.....	C. Wheeler.....	18,823	Dec. 18	45	1324
Cuspidor.....	H. Beeston.....	18,259	Apr. 17	43	254
Dentifrice-case.....	J. C. Moore.....	18,354	May 29	43	987
Desk. Cabinet.....	F. A. Coffin.....	18,112	Feb. 28	42	832
Desk. Cabinet.....	F. A. Coffin.....	18,153	Mar. 6	42	965
Desk. Cabinet.....	F. A. Coffin.....	18,176	Mar. 13	42	1066
Desk. Cabinet.....	F. A. Coffin.....	18,178	Mar. 13	42	1066
Desk. Cabinet.....	F. A. Coffin.....	18,227	Apr. 3	43	2
Desk-cabinet.....	F. S. Thomas.....	18,322	May 15	43	760
Desk. Writing.....	F. A. Coffin.....	18,111	Feb. 28	42	832
Desk. Writing.....	F. A. Coffin.....	18,177	Mar. 13	42	1066
Desk. Writing.....	F. A. Coffin.....	18,226	Apr. 3	43	2
Dish.....	J. B. Hill.....	18,697	Oct. 23	45	350
Dish.....	J. Slater.....	18,030	Jan. 17	42	204
Dishes. Surface ornamentation of.....	W. G. Walter.....	18,358	May 29	43	987
Door-trimming.....	E. Gérard.....	18,725	Nov. 6	45	594
Door-trimming.....	G. J. Wells.....	18,351	May 22	43	890
Drawer-pull.....	E. L. Bryant.....	{ 18,644 } 18,645	Oct. 2	45	2
Dress. Girl's.....	C. Shells.....	18,483	July 21	41	346
Dress-making tool.....	L. B. Hale.....	18,463	July 17	44	236
Dress-trimmings.....	G. Buhlmann and J. Peters.....	18,646	Oct. 2	45	2
Dynamo. Frame for.....	D. J. Hauss.....	18,699	Feb. 21	42	727
Educational model.....	U. G. Houston.....	18,409	June 26	43	1460
Embossed fabric.....	R. Krause.....	18,604	Sept. 11	44	1190
Engine-frame.....	R. M. Beck.....	17,995	Jan. 3	42	2
Envelopes. Back of.....	J. Stern.....	18,414	June 26	43	1460
Eraser-holder.....	F. G. Osborn.....	18,003	Jan. 3	42	2
Fabric.....	B. H. Miller.....	18,395	June 19	43	1352
Fabric.....	C. B. Smith.....	{ 18,347 } 18,350	May 22	43	890
Fan.....	C. J. Davis.....	18,792	Dec. 11	45	1196
Fan, handkerchief, &c.....	D. Rhodes.....	18,579	Aug. 28	44	948
Fan or similar article.....	J. B. Beatty.....	{ 18,489 } 18,500	Aug. 7	44	572
Fire-basket.....	L. Kahn and R. Thiem.....	18,367	June 5	43	1120
Flask.....	L. W. Fairchild.....	18,777	Dec. 4	45	1072
Flower-stand.....	L. J. Murray.....	18,702	Oct. 23	45	350
Flowers. Foundation-piece for cut.....	H. F. Reed and S. Keller.....	18,785	Dec. 4	45	1072
Flue stopper and collar.....	Z. T. Hall.....	18,059	Feb. 14	42	618
Fringe.....	G. S. Hensel, L. D. Valetton, and F. E. Cook.....	{ 18,365 } 18,366	June 5	43	1120
Fringe.....	G. S. Hensel, L. D. Valetton, and F. E. Cook.....	18,383	June 12	43	1242
Fringe.....	G. S. Hensel, L. D. Valetton, and F. E. Cook.....	18,464	July 17	44	236
Furnace-front.....	F. A. Williams.....	18,123	Feb. 28	42	832
Game-tablets. Ornamentation of.....	J. W. Spalding.....	{ 18,411 } 18,412	June 26	43	1460
Game-tablets. Ornamentation of.....	J. W. Spalding.....	18,470	July 17	44	236
Garment-supporter.....	A. P. and H. P. Rindskopf.....	18,205	Mar. 27	42	1294
Gas-burner.....	F. Rhind.....	18,535	Aug. 14	44	702
Gas-burner.....	C. S. Upton.....	18,721	Nov. 6	45	594
Gimp.....	S. Steinecke.....	18,174	Mar. 6	42	966
Gimp.....	C. Weinberg.....	18,183	Mar. 13	42	1066
Gimp.....	C. Weinberg.....	18,619	Sept. 18	44	1296
Glass. Beveled.....	O. C. Hawkes.....	18,510	Aug. 7	44	572
Glass. Beveled.....	O. C. Hawkes.....	18,549	Aug. 21	44	826
Glass. Beveled.....	O. C. Hawkes.....	{ 18,695 } 18,696	Oct. 23	45	350
Glass. Surface ornamentation of.....	A. D. Brogan and A. M. Malloch.....	18,705	Oct. 30	45	464
Glass. Surface ornamentation of.....	A. D. Brogan and A. M. Malloch.....	18,738	Nov. 20	45	838
Glassware.....	T. A. Baker.....	18,621	Sept. 25	44	1403
Glassware, &c. Ornamental border for.....	T. G. Hawkes.....	18,361	May 8	43	636
Glassware. Ornamentation of.....	B. Davies.....	18,791	Dec. 11	45	1196
Glassware, &c. Ornamentation of.....	T. G. Hawkes.....	{ 18,267 } 18,268	Apr. 24	43	394
Glassware. Ornamentation of.....	J. S. O'Connor.....	18,732	Nov. 13	45	714
Glove.....	C. P. Button.....	18,417	July 3	44	2
Glove, &c.....	J. Kayser.....	18,444	July 10	44	112
Gown. Lady's tea.....	J. Shells.....	18,255	Apr. 10	43	120
Gown. Tea.....	E. Moran.....	18,396	June 19	43	1352
Grave designator. Veteran's.....	F. H. Arnold.....	18,517	Aug. 14	44	702
Grave-stone.....	W. R. Stearns and G. W. Lewis.....	{ 18,196 } 18,199	Mar. 20	42	1172
Grinding-mills. Base for.....	P. Hobler.....	18,698	Oct. 23	45	350
Grinding-mills. Hopper for.....	P. Hobler.....	18,629	Sept. 25	44	1403
Gun. Chewing.....	W. D. Chase.....	18,300	May 8	43	636
Halter D.....	W. H. Hays.....	18,753	Nov. 27	45	949
Hame attachment.....	J. S. Schott.....	18,345	May 22	43	890
Hamo-clip.....	O. H. Munz.....	18,047	Feb. 7	42	494
Handkerchief.....	F. M. Gideon and D. Rhodes.....	18,462	July 17	44	236
Handkerchief.....	J. M. Jones.....	{ 18,513 } 18,514	Aug. 7	44	572
Handkerchief.....	M. R. Moore.....	18,494	July 31	44	452
Handkerchief.....	R. H. Rose.....	18,469	July 17	44	236

*Alphabetical list of designs—Continued.*

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Handkerchief .....	R. H. Rose .....	18,497	July 31	41	452
Handkerchief .....	S. B. Turpin .....	18,558	Aug. 21	44	826
Handkerchief .....	H. G. Worthington .....	18,582	Aug. 28	41	948
Handkerchief or banner .....	J. M. Bryce .....	18,487	July 31	41	452
Handkerchief or banner .....	W. H. Minnix .....	{ 18,530 } { 18,531 }	Aug. 14	44	702
Handle .....	F. D. Mersean .....	18,528	Aug. 14	41	702
Handle for cutlery .....	F. R. Kaldenberg .....	18,815	Dec. 18	45	1324
Handle for dishes .....	E. Brevil .....	18,006	Jan. 10	42	100
Handle for forks, &c .....	G. W. Schiebler .....	18,387	June 12	43	1242
Handle for spoons, forks, &c .....	R. H. Klingel .....	18,675	Oct. 9	45	130
Handle for spoons, forks, &c .....	R. H. Klingel .....	18,701	Oct. 23	45	350
Handles for spoons, &c. Ornamentation of .....	A. Dommick .....	18,614	Sept. 18	44	1296
Hardware. Surface ornamentation of builders' .....	G. S. Barkentin .....	18,584	Sept. 4	44	1072
Harness ornament .....	G. S. Cascaden .....	18,597	Sept. 11	44	1190
Hat .....	E. H. Hart .....	18,503	Aug. 7	44	572
Hat-rack .....	J. Behrend .....	18,691	Oct. 23	45	350
Head-light .....	M. M. Buck .....	18,719	Nov. 6	45	594
Helmet .....	J. Heumann .....	18,474	July 17	44	236
Hinge. Door .....	O. Seely .....	18,828	Dec. 25	45	1464
Horseshoe .....	P. F. Greenwood .....	18,215	Mar. 27	42	1294
Hose-carriage body .....	A. Bruegger, Jr., G. E. Preston, and C. Hicks .....	18,612	Sept. 18	44	1296
Hot-water heater .....	E. Gurney .....	{ 18,547 } { 18,548 }	Aug. 21	44	826
Jar .....	T. B. Atterbury .....	18,685	Oct. 16	45	238
Jar .....	T. B. Atterbury .....	18,714	Nov. 6	45	594
Jar .....	W. H. Barr .....	{ 18,223 } to { 18,225 }	Apr. 3	43	2
Jewelry .....	S. M. Griswold .....	18,601	Sept. 11	44	1190
Jewelry. Setting for .....	H. Huestis .....	18,633	Sept. 25	44	1403
Knife and fork .....	M. Richmond .....	18,455	July 10	44	112
Knife and fork. Combined .....	A. W. Cox .....	18,776	Dec. 4	45	1072
Knit fabric .....	S. N. Goodman .....	18,600	Sept. 11	44	1190
Knit fabric .....	G. Upton .....	18,610	Sept. 11	44	1190
Knit fabrics. Ornamentation of .....	J. P. Harriman .....	{ 18,361 } to { 18,364 }	June 5	43	1120
Knit fabrics. Ornamentation of .....	J. P. Harriman .....	18,382	June 12	43	1242
Knitted fabric .....	S. N. Goodman .....	{ 18,672 } to { 18,674 }	Oct. 9	45	130
Laces. Exhibit for shoe .....	W. Paton .....	18,303	May 8	43	636
Lamp .....	S. Clarke .....	18,378	June 12	43	1242
Lamp-burner .....	C. A. Everts .....	18,202	Mar. 27	42	1294
Lamp-fount .....	A. Patitz .....	18,262	Apr. 17	43	254
Lamp. Incandescent .....	D. J. Hauss .....	18,098	Feb. 21	42	727
Lamp or lantern body .....	F. Billingham .....	{ 18,200 } { 18,201 }	Mar. 27	42	1294
Lamp or torch body .....	J. W. Rohm .....	18,669	Oct. 2	45	2
Lamp-shade .....	L. Hinrichs .....	18,465	July 17	44	236
Lamp-shade .....	L. Hinrichs .....	18,504	Aug. 7	44	572
Lamp. Torch .....	O. Carmelia .....	18,585	Sept. 4	44	1072
Lamps, &c. Vase for .....	C. S. Upton .....	18,471	July 17	44	236
Lantern-body .....	W. C. Beckwith .....	{ 18,716 } { 18,717 }	Nov. 6	45	594
Lantern-body .....	F. L. Pisch .....	18,400	June 19	43	1352
Lattice-work .....	W. H. Winslow .....	18,713	Oct. 30	45	464
Lemon-squeezer .....	H. Clayton .....	18,649	Oct. 2	45	2
Mail-boxes. Front for .....	A. and J. L. Culbert .....	18,473	July 17	44	236
Mantel .....	H. G. and W. R. Dawson .....	18,741	Nov. 20	45	838
Match .....	L. Kittinger .....	18,270	Apr. 24	43	394
Match-box .....	L. W. Fairchild .....	18,778	Dec. 4	45	1072
Match-box .....	L. W. Fairchild .....	{ 18,780 } { 18,781 }	Dec. 4	45	1072
Match-box .....	L. W. Fairchild .....	18,794	Dec. 11	45	1196
Match-safe, &c .....	V. K. Brown .....	18,706	Oct. 30	45	464
Medal .....	J. P. Kirk, Jr. .....	18,204	Mar. 27	42	1294
Medallion, &c .....	W. D. Smith .....	18,034	Jan. 31	42	386
Memorial tablet .....	F. A. Green .....	18,019	Jan. 17	42	204
Metal binding .....	M. J. Wilson .....	18,620	Sept. 18	44	1296
Metal plate .....	T. and G. M. Stone .....	18,581	Aug. 28	44	948
Moccasins or shoes. Ornamentation of .....	J. E. Booth .....	18,186	Mar. 20	42	1172
Monoy-box .....	E. A. Dubey .....	18,686	Oct. 16	45	238
Mustard-cup .....	T. B. Atterbury .....	18,457	July 17	44	236
Necktie .....	W. Von Brennerberg .....	18,670	Oct. 2	45	2
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 18,026 } to { 18,029 }	Jan. 24	42	300
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 18,275 } to { 18,280 }	Apr. 24	43	394
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 18,336 } to { 18,342 }	May 22	43	890
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 18,370 } { 18,371 }	June 5	43	1120
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 18,654 } to { 18,668 }	Oct. 2	45	2
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 18,797 } to { 18,808 }	Dec. 11	45	1196
Organ-stop knob .....	M. Clark .....	18,330	May 22	43	890

*Alphabetical list of designs—Continued.*

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Package-holder.....	G. H. Benedict.....	18,036	Feb. 7	42	494
Padlock-case.....	J. J. Tower.....	18,436	July 3	44	2
Panel. Open-work.....	F. Mankey.....	{ 18,451 } 18,452	July 10	44	112
Paper. Ornamentation of.....	W. A. Pike.....	18,185	Mar. 13	42	1066
Paper-weight.....	D. Ball.....	18,064	Feb. 21	42	727
Pavement.....	J. A. Muudy.....	18,708	Oct. 30	45	464
Pen and pencil case.....	T. Richards.....	18,410	June 26	43	1460
Pen-holder barrel.....	G. H. Shattuck.....	18,482	July 24	44	346
Pencil-case.....	J. Jones.....	18,491	July 31	44	452
Pencil. Lead.....	S. Kraus.....	18,492	July 31	44	452
Pencil. Lead.....	L. Zeckendorf.....	18,032	Jan. 24	42	300
Photographic vignette.....	J. C. Atkins.....	18,475	July 24	44	316
Piano-cover.....	L. French.....	18,203	Mar. 27	42	1294
Piano-cover. Front of.....	F. Kraemer.....	18,061	Feb. 14	42	618
Picture-frame.....	E. Edmonston.....	18,501	Aug. 7	44	572
Picture-hook.....	W. A. Williamson.....	18,538	Aug. 14	44	702
Pincushion.....	G. F. Atkinson.....	18,583	Sept. 4	44	1072
Pitcher.....	J. Hinrichs.....	18,466	July 17	41	236
Plane cutter. Bench.....	A. Fales.....	18,361	June 12	43	1242
Plate or dish.....	E. Gérard.....	18,707	Oct. 30	45	464
Plumes. Base for.....	E. Eicke.....	18,599	Sept. 11	44	1190
Polonaise. Lady's.....	M. Turner.....	18,017	Jan. 10	42	100
Press frame. Cutting or forcing.....	J. W. Brown, Jr.....	18,359	June 5	43	1120
Pulley-frame.....	E. C. Stearns.....	18,536	Aug. 14	44	702
Purse or bag frame.....	H. S. Craus.....	18,477	July 24	44	346
Quilting.....	C. T. Wagner.....	{ 18,401 } to 18,404	June 19	43	1352
Quilting.....	C. T. Wagner.....	{ 18,415 } 18,416	June 26	43	1460
Radiator.....	J. B. Dyar.....	18,615	Sept. 18	44	1296
Radiator.....	H. C. Hodges.....	18,310	May 15	43	760
Radiator.....	C. H. Hodges.....	{ 18,312 } 18,313	May 15	43	760
Radiator.....	J. F. Packer.....	18,724	Dec. 4	45	1072
Radiator.....	J. F. Packer.....	{ 18,809 } 18,810	Dec. 11	45	1196
Radiator.....	J. B. Pierce and J. Bond.....	18,241	Apr. 3	43	2
Radiator ornamentation.....	J. B. Dyar.....	18,440	July 10	44	112
Radiator ornamentation.....	C. H. Hodges.....	18,311	May 15	43	760
Radiator ornamentation.....	C. H. Hodges.....	18,314	May 15	43	760
Railway-rail.....	W. Wharton, Jr., and E. Samuel.....	{ 18,324 } to 18,328	May 15	43	760
Range. Cooking.....	R. F. Schermerhorn and F. S. Weller.....	18,254	Apr. 10	43	120
Range or cooking stove.....	G. C. Bascom.....	18,472	July 17	44	236
Register front. Hot-air.....	E. Shenton.....	18,435	July 3	44	2
Rubber soles. Ornamentation of.....	G. Watkinson.....	18,593	Sept. 4	44	1072
Rug.....	G. B. Fox.....	18,011	Jan. 10	42	100
Rug.....	G. Marchetti.....	{ 18,678 } to 18,681	Oct. 9	45	130
Rug.....	J. Pegel.....	18,004	Jan. 3	42	2
Rug.....	J. Pegel.....	{ 18,431 } to 18,433	July 3	44	2
Rug.....	J. Pegel.....	{ 18,759 } to 18,761	Nov. 27	45	949
Rug.....	A. Petzold.....	{ 18,397 } to 18,399	June 19	43	1352
Rug.....	A. Petzold.....	{ 18,762 } 18,763	Nov. 27	45	949
Rug.....	W. T. Smith.....	18,703	Oct. 23	45	350
Rug.....	W. T. Smith.....	{ 18,711 } 18,712	Oct. 30	45	464
Rug.....	A. Weiss.....	{ 18,437 } to 18,439	July 3	44	2
Scarf.....	H. Rawak.....	18,454	July 10	41	112
Sheet metal. Ornamentation of.....	A. I. Griggs.....	18,391	June 19	43	1352
Shingle or roofing-plate.....	J. S. Thorn.....	{ 18,208 } to 18,212	Mar. 27	42	1294
Shingle or roofing-plate.....	J. S. Thorn.....	18,591	Sept. 4	44	1072
Shrine.....	J. A. McGee.....	18,181	Mar. 13	42	1066
Sidewalk dead-light frame.....	P. H. Jackson.....	18,286	May 1	43	514
Sign-box.....	G. E. Meyer.....	18,372	June 5	43	1120
Skirt.....	L. Roys.....	18,385	June 13	43	1242
Skirt. Lady's walking.....	J. Sheils.....	18,217	Mar. 27	42	1294
Skirt. Lady's walking.....	C. Swain.....	18,484	July 24	44	346
Skirt. Walking.....	L. Roys.....	18,320	May 15	43	760
Skirt. Walking.....	L. Roys.....	18,344	May 22	43	890
Skirts. Ornamentation of.....	A. Hildt.....	18,100	Feb. 21	42	727
Sleeve.....	E. L. Jenkins.....	18,478	July 24	44	346
Sleigh. Coupelet.....	J. Kingsbury.....	18,237	Apr. 7	44	572
Slipper.....	H. Nollner.....	18,507	Aug. 7	44	572
Slipper-case.....	J. F. Lockwood.....	18,677	Oct. 9	45	130
Slipper-vamp.....	H. L. Hiller.....	18,384	June 12	43	1242
Smoothing-iron.....	E. B. Cosby.....	18,694	Oct. 23	45	350
Spectacle-frame.....	C. B. Bishop.....	18,727	Nov. 13	45	714
Spool-cabinet.....	E. R. Bullock.....	18,388	June 19	43	1351

## Alphabetical list of designs—Continued.

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Spoon .....	G. I. Mix .....	18,290	May 1	43	514
Spoon .....	H. A. Pistorius .....	18,453	July 10	44	112
Spoon, fork, &c .....	R. H. Klingel .....	{ 18,315 } { 18,316 }	May 15	43	760
Spoon, fork, or knife handle. Ornamentation of a .....	J. H. Davis .....	18,459	July 17	41	236
Spoon-handles. Ornamentation of .....	E. T. Schoonmaker .....	{ 18,169 } { 18,170 }	Mar. 6	42	965
Spoon or fork handle .....	A. F. Jackson .....	18,490	July 31	44	452
Spoons and like articles. Handle for .....	J. M. Culver .....	18,458	July 17	44	236
Spur .....	A. Buermann .....	18,187	Mar. 20	42	1172
Stand. Ornamental .....	J. Rundecker .....	18,640	Sept. 25	44	1404
Statuary. Group of .....	J. Rogers .....	18,587	Sept. 4	44	1072
Statuary. Group of .....	J. Rogers .....	18,734	Nov. 13	45	714
Stool. Foot .....	M. Y. Ransom .....	18,827	Dec. 25	45	1464
Stove. Cooking .....	W. J. Andrews .....	18,263	Apr. 24	43	394
Stove. Cooking .....	J. L. Gobeille .....	18,332	May 22	43	890
Stove. Cooking .....	J. L. Gobeille .....	18,334	May 22	43	890
Stove. Cooking .....	W. J. Keep and C. Wipfler .....	18,101	Feb. 21	42	727
Stove. Cooking .....	W. J. Keep and C. Wipfler .....	18,251	Apr. 10	43	120
Stove. Cooking .....	W. J. Keep and C. Wipfler .....	18,445	July 10	41	112
Stove. Cooking .....	E. J. King .....	18,302	May 8	43	636
Stove. Cooking .....	J. A. Price .....	18,304	May 8	43	636
Stove. Cooking .....	W. H. Wilkinson .....	18,774	Nov. 27	45	950
Stove. Gas .....	A. J. Doty .....	18,007	Jan. 10	42	100
Stove. Gas .....	A. T. Henderson .....	18,795	Dec. 11	45	1196
Stove. Gas or vapor .....	C. A. and L. Stockstrom .....	{ 18,257 } { 18,258 }	Apr. 10	43	120
Stove. Heating .....	J. L. Gobeille .....	18,333	May 22	43	890
Stove. Heating .....	J. L. Gobeille .....	18,731	Nov. 13	45	714
Stove. Heating .....	C. T. Heisel .....	18,179	Mar. 13	42	1066
Stove. Heating .....	W. J. Keep and C. Wipfler .....	18,114	Feb. 28	42	832
Stove. Heating .....	W. J. Keep and C. Wipfler .....	{ 18,190 } { 18,191 }	Mar. 20	42	1172
Stove. Heating .....	W. J. Keep and C. Wipfler .....	18,700	Oct. 23	45	350
Stove. Heating .....	E. J. King and W. H. Wilkinson .....	18,422	July 3	44	2
Stove. Heating .....	C. W. McCutchen .....	18,616	Sept. 18	44	1296
Stove. Heating .....	J. K. McLaughlin .....	18,014	Jan. 10	42	100
Stove. Heating .....	F. A. Seifert and E. D. Nellis .....	18,737	Nov. 13	45	714
Stove. Heating .....	F. A. Seifert and E. D. Nellis .....	18,766	Nov. 27	45	950
Stove. Heating .....	H. Smith and F. A. Seifert .....	{ 18,767 } { 18,768 }	Nov. 27	45	950
Stove. Heating .....	J. S. Van Buren .....	18,773	Nov. 27	45	950
Stove. Heating .....	W. H. Wilkinson .....	18,377	June 5	43	1120
Stove. Lamp .....	J. De Mooy, Jr. .....	18,624	Sept. 25	44	1403
Stove or range. Cooking .....	J. L. Gobeille .....	18,012	Jan. 10	42	100
Stove. Parlor .....	T. I. Rankin .....	18,744	Nov. 20	45	838
Strap .....	E. B. Stimpson .....	{ 18,788 } { 18,789 }	Dec. 4	45	1072
Strap .....	E. B. Stimpson .....	{ 18,811 } { 18,812 }	Dec. 11	45	1196
Table-cover .....	D. B. Kerr .....	18,636	Sept. 25	44	1104
Table-cover .....	A. Moniot .....	18,690	Oct. 16	45	238
Table-cover .....	C. Wiesen .....	18,537	Aug. 14	44	702
Textile fabric .....	E. A. Fenner .....	{ 18,000 } { 18,001 }	Jan. 3	42	2
Thermometer-back .....	H. L. Weiland .....	18,405	June 19	43	1352
Thrashing-machine casing .....	W. W. Dingee .....	18,793	Dec. 11	45	1196
Tile .....	E. Whalley .....	18,375	June 5	43	1120
Time-piece characters .....	H. B. Carr .....	18,488	July 31	41	452
Toilet-case .....	J. F. Lockwood .....	18,676	Oct. 9	45	130
Toilet-case .....	G. C. Varwig .....	18,242	Apr. 3	43	2
Tooth-powder holder .....	C. L. Bartlett .....	18,018	Jan. 17	42	204
Torch. Campaign .....	L. C. Beardsley .....	18,611	Sept. 18	44	1296
Torch. Campaign .....	L. C. Beardsley .....	18,715	Nov. 6	45	594
Toy .....	D. Cooke .....	18,489	July 31	44	452
Toy bank .....	J. A. Graff .....	18,352	May 29	43	987
Toy. Building-block .....	S. A. D. Volk .....	18,592	Sept. 4	44	1072
Toy savings-bank .....	C. G. Shepard and P. Adams .....	18,618	Sept. 18	44	1296
Trace-carrier .....	F. Frazer .....	18,724	Nov. 6	45	594
Trimming .....	I. Goodman .....	18,033	Jan. 31	42	386
Trimming .....	B. Lipper .....	18,253	Apr. 10	43	120
Trimming .....	J. Maidhof .....	18,369	June 5	43	1120
Trimming .....	W. H. Maurer .....	18,527	Aug. 14	44	702
Trimming .....	E. B. Stimpson, Jr. ....	{ 18,769 } to { 18,771 }	Nov. 27	45	950
Trimming. Dress .....	J. Maidhof .....	18,586	Sept. 4	44	1072
Trimming. Dress .....	A. V. Schoonmaker .....	18,434	July 3	44	2
Truck frame. Car .....	J. Stephenson .....	18,551	Aug. 21	44	826
Tumbler or other glassware .....	S. Hopkins, Jr. ....	18,650	Oct. 2	45	2
Type .....	A. M. Barnhart .....	18,035	Feb. 7	42	494
Type .....	W. Barnhart .....	18,175	Mar. 13	42	1066
Type .....	L. B. Benton .....	18,775	Dec. 4	45	1072
Type .....	W. F. Capitain .....	18,508	Aug. 7	44	572
Type .....	W. F. Capitain .....	18,671	Oct. 9	45	130
Type .....	G. F. Giesecke .....	{ 18,751 } { 18,752 }	Nov. 27	45	949
Type .....	J. Guildenstine .....	18,013	Jan. 10	42	100
Type .....	C. E. Heyer .....	18,037	Feb. 7	42	494
Type .....	C. E. Heyer .....	18,250	Apr. 10	43	120
Type .....	E. Lauschke .....	18,239	Apr. 3	43	2
Type .....	E. Lauschke .....	18,271	Apr. 24	43	394
Type .....	A. Little .....	18,755	Nov. 27	45	949
Type .....	J. West .....	18,516	Aug. 7	44	572

*Alphabetical list of designs—Continued.*

Design.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Type	J. West	18,790	Dec. 4	45	1072
Type	J. West	18,829	Dec. 25	45	1464
Type. Font of	H. Brehmer	18,560	Aug. 28	44	948
Type. Font of	H. Brehmer	18,595	Sept. 11	44	1190
Type. Font of	J. Guildenstine	18,602	Sept. 11	44	1190
Type. Font of	E. C. Ruthven	18,617	Sept. 18	44	1296
Type. Font of printing	L. B. Benton	18,692	Oct. 23	45	350
Type. Font of printing	W. F. Captain	18,613	Sept. 18	44	1296
Type. Font of printing	F. C. Foster	{ 18,626 } { 18,627 }	Sept. 25	44	1403
Type. Font of printing	C. E. Heyer	18,024	Jan. 24	42	300
Type. Font of printing	C. E. Heyer	18,156	Mar. 6	42	965
Type. Font of printing	C. E. Heyer	18,603	Sept. 11	44	1190
Type. Font of printing	H. Ihlenberg	18,163	Mar. 6	42	965
Type. Font of printing	H. Ihlenburg	{ 18,735 } { 18,736 }	Nov. 13	45	714
Type. Font of printing	W. W. Jackson	18,164	Mar. 6	42	965
Type. Font of printing	W. W. Jackson	18,269	Apr. 24	43	394
Type. Font of printing	E. Lauschke	18,394	June 19	43	1352
Type. Font of printing	E. Lauschke	18,606	Sept. 11	44	1190
Type ornaments. Font of combination	C. E. Heyer	18,285	May 1	43	514
Type ornaments. Font of combination	C. E. Heyer	18,442	July 10	44	112
Underwear	G. E. Nye	18,496	July 31	44	452
Upholstery fabric	G. A. Crisson	{ 18,418 } { 18,419 }	July 3	44	2
Vessels. Top for incased	J. A. Frey	18,461	July 17	44	236
Wall-paper	W. B. Burgess	{ 18,647 } { 18,648 }	Oct. 2	45	2
Wall-paper	W. B. Burgess	18,633	Oct. 23	45	350
Wall-paper	D. D. Elder	18,742	Nov. 20	45	838
Walls. Surface ornamentation of	L. Clémencet	18,562	Aug. 28	44	948
Walls. Surface ornamentation of	F. Koskul	18,368	June 5	43	1120
Walls. Surface ornamentation of	F. Koskul	{ 18,423 } { 18,430 }	July 3	44	2
Walls. Surface ornamentation of	F. Koskul	{ 18,446 } { 18,447 }	July 10	44	112
Walls. Surface ornamentation of	F. Koskul	18,449	July 10	44	112
Walls. Surface ornamentation of	F. Koskul	18,467	July 17	44	236
Walls. Surface ornamentation of	F. Koskul	18,479	July 24	44	346
Walls. Surface ornamentation of	F. Koskul	{ 18,688 } { 18,689 }	Oct. 16	45	238
Watch-bridge	C. W. Ward	{ 18,722 } { 18,723 }	Nov. 6	45	594
Watch-bridge	C. W. Ward	{ 18,821 } { 18,822 }	Dec. 18	45	1324
Watch-case	F. Parker	18,608	Sept. 11	44	1190
Watch-case	F. and H. Parker	18,817	Dec. 18	45	1324
Watch-case	L. A. Parsons	18,733	Nov. 13	45	714
Watch-case or locket	H. S. Noyes	{ 18,532 } { 18,533 }	Aug. 14	44	702
Watch-cases. Ornamentation of	C. H. Pfeil	18,709	Oct. 30	45	464
Watch-charm	E. Terry	18,356	May 29	43	987
Water-closet	J. Slater	18,195	Mar. 20	42	1172
Water-closet bowl	O. J. McGann	18,192	Mar. 20	42	1172
Water-closet bowl and standard	W. R. Emerson	18,441	July 10	44	112
Water-closet. Washout	J. D. Abraham	18,504	Sept. 11	44	1190
Weighing-machine case	H. A. Schneekloth	18,818	Dec. 18	45	1324
Whisk-holder and match-safe	J. F. Lockwood	18,353	May 29	43	987
Window-guard	J. Pirk	18,293	May 1	43	514
Wrap. Lady's	E. Moran	18,292	May 1	43	514
Wrapper. Lady's	L. Roys	18,295	May 1	43	514



# ALPHABETICAL LIST OF TRADE-MARKS.

Title.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Alkaloid—to wit, oxytolnyltropein	E. Merck	15,990	Nov. 6	45	594
Alloy for jewelry	J. Mulhr	15,658	July 3	44	2
Alloys and articles made therefrom	Phosphor Bronze Smelting Company	15,226	Feb. 21	42	728
Alloys and articles made therefrom. Metallic	Phosphor Bronze Smelting Company	15,225	Feb. 21	42	728
Amalgam for dental and other purposes	W. B. Ames	16,008	Nov. 20	45	838
Anæsthetic compound. Certain	U. K. Mayo	15,438	May 8	43	636
Antiseptic chemical compound	Phénique Chemical Company	15,545	May 29	43	988
Antiseptics and medicines for all skin diseases	H. Trommsdorff	15,842	Sept. 4	44	1072
Aperient water. Natural	A. Saxlehner	15,395	Apr. 24	43	394
Articles of pharmacy, soap, dentifrice, and toilet vinegar which contain a certain odoriferous extract.	Rocke, Tomsitt & Co	15,079	Jan. 3	42	2
Atomizers	A. P. Lighthill	15,232	Feb. 28	42	832
Axes	E. F. Carpenter & Co	15,074	Jan. 3	42	2
Baking-powder	Gans & Miller	15,688	July 17	44	236
Baking-powder	W. F. McLaughlin	15,991	Nov. 6	45	594
Baking-powder	H. W. Mott	15,657	July 3	44	2
Baking-powder	Price Baking Powder Company	15,951	Oct. 16	45	238
Baking-powder and hop yeast	Churchill & Co.	15,741	Aug. 7	44	572
Bale-ties. Wire	Trenton Iron Company	15,343	Apr. 3	43	2
Ball goods and outfits. Base	R. F. Fenno	15,196	Feb. 21	42	728
Banjos	C. E. Dobson	15,277	Mar. 13	42	1066
Bats for tennis, racket, cricket, and other games	R. Slazenger	15,098	Jan. 10	42	100
Beds. Folding	J. H. Little & Co	16,087	Dec. 11	45	1196
Beef juice	W. T. Salter	15,580	June 5	43	1120
Beer	J. P. Bush Manufacturing Company	15,964	Oct. 23	45	350
Beer	V. Blatz	15,340	Apr. 10	43	130
Beer	Cramer & Kersten	15,634	June 26	43	1460
Beer	A. Guinness, Son & Company	15,464	May 15	43	760
Beer	J. Schlitz Brewing Company	15,646	June 26	43	1460
Beer	F. Seely	15,553	May 29	43	988
Beer	J. Wagner	15,327	Mar. 27	42	1294
Beer	J. Woolner	16,023	Nov. 20	45	838
Beer, ale, and porter	Her & Burgweger	15,919	Oct. 2	45	2
Beer, ale, and porter	J. L. Straus & Bro	15,632	June 19	43	1352
Beer, fluid malt, extract of malt, and a malt preparation.	G. Manz Brewing Company	15,816	Aug. 28	44	948
Lager-Beer. Lager	Beadleston & Woerz	15,912	Oct. 2	45	2
Beer. Lager	Gipps Brewing Company	15,570	June 5	43	1120
Beer. Lager	E. G. Schlieder	15,342	Apr. 3	43	2
Beer, soda, and mineral waters. Lager	Ludloff & Nacke	15,594	June 12	43	1242
Bells. Electric	J. F. Wollensak	15,664	July 3	44	2
Belting and hose. Rubber	Revere Rubber Company	16,066	Dec. 4	45	1072
Belting and hose. Second-grade rubber	New York Belting and Packing Company.	16,064	Dec. 4	45	1072
Belting and hose. Third-grade rubber	New York Belting and Packing Company.	16,065	Dec. 4	45	1072
Belting. Leather	W. S. Nott Company	15,510	May 22	43	890
Belting. Rubber	H. D. Edwards & Co	15,155	Jan. 31	42	386
Belting. Rubber	H. D. Edwards & Co	15,156	Jan. 31	42	386
Belting. Self-adjusting leather link	C. L. Ireson	15,279	Mar. 13	42	1066
Beverage containing fruit properties. Non-alcoholic	C. H. Sagar	15,820	Aug. 28	44	948
Beverage. Non-alcoholic	C. H. Sagar	15,215	Feb. 21	42	728
Beverages. Aerated	J. P. W. Von Laer	15,881	Sept. 18	44	1296
Beverages. Carbonated	S. A. Ludin	15,280	Mar. 13	42	1066
Beverages. Malt and carbonated	J. M. Donnelly	15,527	May 29	43	988
Beverages. Nutrient	Phillip Best Brewing Company	15,777	Aug. 14	44	702
Beverages. Nutrient	Phillip Best Brewing Company	15,778	Aug. 14	44	702
Bicycles and tricycles	St. George's Engineering Co	15,577	July 10	44	112
Biscuits, crackers, wafers, and similar articles	Holmes & Coutts	15,203	Feb. 21	42	728
Biscuits, crackers, wafers, and similar articles	Holmes & Coutts	15,204	Feb. 21	42	728
Biscuits for dogs, horses, cattle, and other animals	G. H. Bonnor & Co	15,362	Apr. 17	43	254
Bitters	W. F. Colby	16,101	Dec. 18	45	1324
Bitters	Durant & Co	15,423	May 8	43	636
Bitters	Meade-Van Bokkelen Company	16,077	Dec. 11	45	1196
Bitters and blood-tonic. Pulmonary	B. A. Scoote	15,356	Apr. 10	43	120
Bitters or tonic	Mayer Bros. & Co	15,730	July 31	44	432
Bitters. Stomach	Hostetter & Co	15,873	Sept. 18	44	1296
Blacking. Boot and shoe	C. T. Kenney, J. Donovan, and W. K. Rodway	15,466	May 15	43	760
Blacking or polish for stoves	Black Flag Stove Polish Company	15,135	Jan. 31	42	386
Blasting-machines, electric batteries, fuses, blasting caps and wires. Magneto	J. Macbeth	15,281	Mar. 13	42	1066
Bleaching-bluing	G. F. Soter	15,237	Feb. 28	42	832
Blood and liver and for rheumatism. Preparation of herbs used as a remedy for diseases of the	C. Marks	15,339	Apr. 3	43	2
Blood-renewer and alterative tonic	J. W. Cole & Co	16,011	Nov. 20	45	838
Boilers. Compound for preventing incrustation and for removing scale in	Lewis Manufacturing Company	15,406	May 1	43	514
Boilers. Safety fusible plugs for	G. Van Wagenen	15,623	June 19	43	1352
Boilers. Steam and hot-water	Pierce, Butler & Pierce Manufacturing Company.	15,410	May 1	43	514

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Books, papers, and envelopes used in the business of collecting debts.	G. W. Bristol	15,726	July 31	44	452
Boots and shoes	Belknap, Carpenter & Co	15,682	July 17	44	236
Boots and shoes	F. W. Blacker	15,968	Oct. 30	45	464
Boots and shoes	Hill & Greene	15,693	July 17	44	236
Boots and shoes	T. Miles' Sons	15,210	Feb. 21	42	728
Boots and shoes	S. Norwood & Co	15,836	Sept. 4	44	1072
Boots and shoes	Parker, Holmes & Co	15,285	Mar. 13	42	1066
Boots and shoes	M. Sam & Co	15,367	Apr. 17	43	254
Boots and shoes	T. A. Whichee & Co	15,157	Jan. 31	42	386
Boots and shoes. Leather	T. Rice & Co	15,550	May 29	43	988
Boots and shoes. Leather, cloth, and rubber	J. H. Hanan	15,571	June 5	43	1120
Boots and shoes. Men's	Chase, Merritt & Co	15,381	Apr. 24	43	394
Boots and shoes of all descriptions	A. J. Canmeyer	15,684	July 17	44	236
Boots and shoes. Oil grain-leather	A. F. & J. Wm. Horner	10,089	Jan. 10	42	100
Bottles	Bottlers Protective Association	15,844	Sept. 11	44	1190
Boxes adapted to contain prepared tobacco, candy, and similar articles.	V. Fountain	16,111	Dec. 25	45	1464
Brandy. Cognac	Gantier Frères	15,871	Sept. 18	44	1296
Brandy. Cognac	Gantier Frères	15,872	Sept. 18	44	1296
Broma	H. L. Pierce	15,265	Mar. 6	42	966
Brooms. Corn	R. R. and B. F. Carroll	15,158	Jan. 31	42	386
Brushes and polishers. Tooth	Horsey Manufacturing Co	15,574	June 5	43	1120
Brushes and polishers. Tooth	Horsey Manufacturing Co	15,575	June 5	43	1120
Butter	Phister & McKey	15,600	June 12	43	1242
Butter in prints	S. T. Edel, Sr	15,652	July 3	44	2
Button-fasteners. Metallic	American Shoe Tip Company	16,071	Dec. 11	45	1196
Button-fasteners. Two-pronged	Peninsular Novelty Company	15,838	Sept. 4	44	1072
Buttons. Pearl	Ostheimer Brothers	15,806	Aug. 21	44	826
Candies, cake, and pastry	J. Morton's Sons	16,078	Dec. 11	45	1196
Candles	Dearborn Manufacturing Company	15,791	Aug. 21	44	826
Candy	Hawley & Hoops	15,201	Feb. 21	42	728
Canned corn	H. C. Baxter	16,028	Nov. 27	45	950
Canned corn, beans, succotash, pumpkin, tomatoes, and green peas.	Merrell & Soule	15,949	Oct. 16	45	238
Canned fruits and vegetables.	Cartice Brothers Company	15,889	Sept. 25	44	1404
Canned fruits, vegetables, meats, poultry, and jellies	A. B. Fenton	15,915	Oct. 2	45	2
Canned green corn	B. Reiff	15,393	Apr. 24	43	394
Canned lobster and salmon	Delafield, Morgan, Kissel & Co	15,891	Sept. 25	44	1404
Canned oysters and vegetables	S. D. Warfield	15,378	Apr. 17	43	254
Canned salmon	Aleutian Islands Fishing and Mining Company	16,098	Dec. 18	45	1324
Canned tomatoes	Starr & Bro	15,358	Apr. 10	43	120
Canned vegetables	Merrell & Soule	15,992	Nov. 6	45	594
Canned vegetables, corn, tomatoes, and fruits	J. H. Preston & Sons	15,392	Apr. 24	43	394
Cans and glass vessels. Wood-incased	W. D. W. Miller	15,576	June 5	43	1120
Capsules for medicinal or other use	Betts & Company	16,009	Nov. 20	45	838
Carriages. Pleasure	Healey & Co	15,365	Apr. 17	43	254
Cars. Railway stock	G. D. Burton	15,683	July 17	44	236
Catarrh remedy	I. B. Cushing	15,332	Apr. 3	43	2
Catarrh. Remedy for	J. S. Brown	16,031	Nov. 27	45	950
Catarrh specific	Filkins Bros	15,686	July 17	44	236
Cement	H. Fleming	15,230	Feb. 28	42	832
Cement. Hydraulic	J. Robinson & Co	15,807	Aug. 21	44	826
Cement. Mineral	Kaw Valley Cement Company	15,815	Aug. 28	44	948
Cement. Portland	J. C. Gostling & Company	15,813	Aug. 28	44	948
Cereals. Steam-cooked	E. Elsworth	15,765	Aug. 14	44	702
Chains. Filled gold	W. H. Robinson & Co	15,579	June 5	43	1120
Champagne	E. Irroy	15,535	May 29	43	988
Charlotte-russe	R. V. Kane	16,074	Dec. 11	45	1196
Cheroots, cigars, and cigarettes	P. Whitlock	15,624	June 19	43	1352
Chicory, prunes, and raisins	F. Seggermann	15,097	Jan. 10	42	100
Chocolate	H. L. Pierce	15,270	Mar. 6	42	966
Chocolate. C. Alden's	H. L. Pierce	15,660	July 3	44	2
Chocolate for use in cooking and as a confection. Plain	Hawley & Hoops	15,163	Feb. 7	42	494
Chocolate. French sweet	H. L. Pierce	15,267	Mar. 6	42	966
Chocolate. French sweet	H. L. Pierce	15,272	Mar. 6	42	966
Chocolate. Josiah Webb & Co's premium	H. L. Pierce	15,271	Mar. 6	42	966
Chocolate. Manufactured	H. L. Pierce	15,266	Mar. 6	42	966
Chocolate. Sweet	H. L. Pierce	15,269	Mar. 6	42	966
Chocolate. Sweet vanilla	H. L. Pierce	15,273	Mar. 6	42	966
Chocolate. Webb's double vanilla	H. L. Pierce	15,262	Mar. 6	42	966
Cigarettes	Kinney Tobacco Company	15,336	Apr. 3	43	2
Cigarettes	Kinney Tobacco Company	15,337	Apr. 3	43	2
Cigarettes	Kinney Tobacco Company	15,338	Apr. 3	43	2
Cigars	E. Aschermann & Co	15,133	Jan. 31	42	386
Cigars	M. Barranco & Co	15,563	June 5	43	1120
Cigars	M. Barranco & Co	15,564	June 5	43	1120
Cigars	G. G. Cuervo	15,743	Aug. 7	44	572
Cigars	G. G. Cuervo	15,744	Aug. 7	44	572
Cigars	G. G. Cuervo	15,745	Aug. 7	44	572
Cigars	G. G. Cuervo	15,795	Aug. 21	44	826
Cigars	El Modelo Cigar Manufacturing Co	15,568	June 5	43	1120
Cigars	G. Fehl & Co	15,893	Sept. 25	44	1404
Cigars	H. R. Kelly & Co	15,465	May 15	43	760
Cigars	Reid, Murdoch & Fischer	15,547	May 29	43	988
Cigars	Reid, Murdoch & Fischer	15,548	May 29	43	988
Cigars	Reid, Murdoch & Fischer	15,549	May 29	43	988
Cigars	F. X. Smith	15,953	Oct. 16	45	238
Cigars	D. L. Trujillo & Sons	15,746	Aug. 7	44	572
Cigars and cigarettes	T. W. Harris	16,041	Nov. 27	45	950
Cigars and cigarettes	Waldauer & Baer	15,150	Jan. 31	42	386
Cigars and smoking and chewing or plug tobacco	J. Elwin	15,585	June 13	43	1242

## Alphabetical list of trade-marks—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Cigars, cigarettes, and chewing and smoking tobacco .....	Pemberton & Hill Tobacco Manufacturing Company.	15,111	Jan. 17	42	204
Cigars, cigarettes, and smoking and chewing tobacco .....	Irwin & Co.	15,536	May 29	43	988
Cigars, cigarettes, chewing and smoking tobacco, and snuff.	Pemberton & Hill Tobacco Manufacturing Company.	15,837	Sept. 4	44	1072
Cigars, cigarettes, smoking and chewing tobacco, and snuff.	M. D. Neumann.	15,578	June 5	43	1120
Cigars. Key West.	Grommes & Ullrich.	15,335	Apr. 3	43	2
Cloaks.	Siegel, Cooper & Co.	15,112	Jan. 17	42	204
Clothes-pins.	Tobyhanna and Lehigh Lumber Company.	15,648	June 26	43	1160
Clothing and furnishing goods. Gentlemen's.	M. Weil.	15,926	Oct. 2	45	2
Clothing and overcoats. Outer.	Bierman, Heidelberg & Co.	15,456	May 15	43	760
Cloths, cashmores, velvets, socks, stockings, and gloves. Dress.	Bloomington Brothers.	15,102	Jan. 17	42	204
Coal.	J. H. Leonard.	16,075	Dec. 11	45	1196
Coal and coke.	Jumbo Coal and Coke Co.	15,641	June 26	43	1160
Coal. Anthracite and bituminous.	North River Coal and Wharf Company.	15,409	May 1	43	514
Coat-linings.	Alburger, Stoer & Co.	15,276	Mar. 13	42	1066
Coat. Protector to prevent soiling the collar, necktie, and upper part of the	A. P. Langdon.	15,769	Aug. 14	44	702
Coats, pantaloons, vests, shirts, overalls, and men's furnishings.	Stanton, Sampson & Co.	16,096	Dec. 11	45	1196
Cocoa and chocolate. Preparation of.	Bensdorp & Co.	15,479	May 22	43	890
Cocoa. Cracked.	H. L. Pierce.	15,263	Mar. 6	42	966
Cocoa. Cracked.	H. L. Pierce.	15,261	Mar. 6	42	966
Cocoa paste.	H. L. Pierce.	15,286	Mar. 13	42	1066
Cocoa shells. Webb's.	H. L. Pierce.	15,261	Mar. 6	42	966
Cocoa. Soluble.	Bensdorp & Co.	15,629	June 26	43	1160
Cocoa. Webb's pure.	H. L. Pierce.	15,268	Mar. 6	42	966
Coffee.	Chase & Sanborn.	15,457	May 15	43	760
Coffee.	H. P. Webster.	15,702	July 17	44	236
Coffee and coffee compounds.	Chase & Sanborn.	15,869	Sept. 18	44	1296
Coffee and coffee compounds.	Chase & Sanborn.	16,034	Nov. 27	45	950
Coffee and coffee compounds.	Chase & Sanborn.	16,035	Nov. 27	45	950
Coffee. Compound for mixing with.	G. Dey.	16,102	Dec. 18	45	1324
Coffee. Extract of.	Weikel & Smith Spice Company.	15,938	Oct. 9	45	130
Coffee. Roasted.	J. H. Brown.	15,907	Sept. 25	44	1404
Coffee. Roasted.	Enterprise Coffee Company.	15,460	May 15	43	760
Coffee. Roasted.	Enterprise Coffee Company.	15,462	May 15	43	760
Coffee. Roasted.	Hayworth & Dewhurst.	16,669	July 10	41	112
Collars and cuffs.	J. Fowler.	15,687	July 17	44	236
Collars and cuffs.	Miller & Bingham.	15,282	Mar. 13	42	1066
Collars and cuffs.	Reversible Collar Company.	15,700	July 17	44	236
Collars. Sweat-pads for horse.	E. L. McClain.	15,900	Sept. 25	44	1404
Colors of all shades and tints. Mortar.	Nicketson Mineral Paint Works.	15,513	May 22	43	890
Complexion or face powder other than medicated.	J. A. Pozzoni Medicated Complexion Powder Company.	15,256	Sept. 11	44	1190
Compounds for cleansing, washing, and scouring.	Keystone Chemical Company.	15,672	July 10	44	112
Concrete gravel.	O. S. Burdett.	15,862	Sept. 11	44	1190
Confectionery and medicated confectionery.	Allen & Hanburys.	15,329	Apr. 3	43	2
Confectionery. Certain named.	M. D. Saxe.	15,551	May 29	43	988
Confectionery, including jams, jellies, marmalades, preserved and canned fruits, and sweets.	C. Southwell & Co.	15,308	Mar. 20	42	1172
Copper. Refined.	Orford Copper Company.	15,511	May 22	43	890
Copper. Refined.	Orford Copper Company.	15,617	June 19	43	1352
Copper. Refined.	Orford Copper Company.	15,618	June 19	43	1352
Cordial. Kidney.	Patton Bros.	15,902	Sept. 25	44	1404
Cordial. Liquid vegetable blood.	J. M. Buzzell.	15,821	Sept. 4	44	1072
Cordials.	E. Kane & Son.	16,113	Dec. 25	45	1464
Corks.	Dalman, Esteve & Co.	15,075	Jan. 3	42	2
Corks.	Whitall, Tatum & Co.	15,451	May 8	43	636
Corn and succotash. Preserved.	Tathill & Stoddard.	15,446	May 8	43	636
Corn-cure.	D. H. Aldrich.	15,115	Jan. 24	42	300
Corn. Ensilage.	D. H. Burrell & Co.	15,194	Feb. 21	42	728
Corn. Extract of green.	Forestville Canning Company.	16,120	Dec. 25	45	1464
Cornmeal.	L. K. Lovejoy & Co.	15,771	Aug. 14	44	702
Corsets.	W. T. Allen.	15,649	July 3	44	2
Corsets.	J. H. Clark.	15,291	Mar. 20	42	1172
Corsets.	Darlington, Runk & Co.	15,824	Sept. 4	44	1072
Corsets.	C. A. Griswold.	15,493	May 22	43	890
Corsets.	C. A. Griswold.	15,494	May 22	43	890
Corsets.	Jordan, Marsh & Co.	15,322	Mar. 27	42	1294
Corsets.	E. Pohl.	15,976	Oct. 30	45	461
Corsets.	Shepard, Norwell & Co.	15,619	June 19	43	1352
Corsets.	Worcester Corset Company.	15,704	July 17	44	236
Corsets and other white underwear.	Wormser, Felzheimer & Co.	15,843	Sept. 4	44	1072
Cotton and woolen fabrics. Woven.	Rosenthal, Fleischer & Co.	15,515	May 22	43	890
Cotton drills.	China and Japan Trading Company.	15,484	May 22	43	890
Cotton fabrics of all kinds.	Boott Cotton Mills.	15,913	Oct. 2	45	2
Cotton prints.	Lancaster Mills.	15,505	May 22	43	890
Cotton. Spool.	Freeman Manufacturing Company.	15,316	Mar. 27	42	1294
Cotton. Spool.	A. King & Co.	15,076	Jan. 3	42	2
Cotton. Spool.	A. King & Co.	15,077	Jan. 3	42	2
Cotton. Spool.	A. King & Co.	15,108	Jan. 17	42	204
Cotton. Spool.	A. King & Co.	15,109	Jan. 17	42	204
Cough cure and certain proprietary medicines in the form of tablets.	F. Hiller, Jr.	15,245	Feb. 28	42	832
Cough-drops.	G. W. Pepper.	15,371	Apr. 17	43	251
Crackers, biscuits, and kindred articles.	C. D. Boss & Son.	15,227	Feb. 28	42	832
Crackers. Oyster.	D. F. Stauffer.	15,719	July 24	44	316
Crash. Linen.	Stevens Linen Works.	15,925	Oct. 2	45	2
Cultivator.	A. Baldwin & Co.	15,455	May 15	43	760
Cure for certain named diseases.	P. J. Muilberger.	15,817	Aug. 28	44	948
Cure for seasickness.	F. B. Perdomo.	15,909	Sept. 25	44	1404

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Cutlery.....	A. Vom Dorp.....	16,024	Nov. 20	45	838
Cutlery.....	A. Vom Dorp.....	16,081	Dec. 11	45	1196
Cutlery and edge-tools.....	A. F. Shapleigh Hardware Company.....	15,905	Sept. 25	44	1404
Cutlery and edge-tools.....	Stacey Bros.....	15,859	Sept. 11	44	1190
Cutlery and edge-tools, including skates.....	Stacey Bros.....	15,860	Sept. 11	44	1190
Cutlery and shears or scissors. Table, pocket, and toilet.....	Union Cutlery Company.....	15,720	July 24	44	316
Cutlery. Pocket.....	Humason & Beckley Manufacturing Company.....	15,695	July 17	44	236
Cutlery, scissors, hunting and butcher knives, and razors. Pocket and table.....	Hubbell & Randall.....	15,320	Mar. 27	42	1294
Cutlery, scissors, razors, and table-cutlery. Pocket.....	Schmachtenberg Bros.....	15,145	Jan. 31	42	356
Dental goods and materials of all kinds.....	S. S. White Dental Manufacturing Company.....	15,474	May 15	43	760
Dentifrices.....	Bruton & Deaderick.....	15,845	Sept. 11	44	1190
Dentifrices.....	J. C. Moore.....	15,506	May 22	43	890
Dentifrices.....	A. Rowland & Sons.....	15,094	Jan. 10	42	100
Detergent or cleansing powders.....	N. K. Fairbank & Company.....	15,161	Feb. 7	42	494
Diamonds. Genuine or imitation.....	H. E. Oppenheimer & Co.....	15,715	July 24	44	346
Disinfectant. Liquid and powder.....	W. Pearson & Co.....	15,598	June 12	43	1242
Disinfecting-powder composed of lime, carbolic acid, and borax.....	W. L. Weller, Jr.....	15,760	Aug. 7	44	572
Dolls.....	E. Juneau.....	16,044	Nov. 27	45	950
Dowle or finely divided portions of feathers resembling down.....	C. M. Hawkins & Co.....	15,532	May 29	43	988
Draftsmen and engineers. Certain supplies and instruments for.....	E. G. Soltmann.....	15,220	Feb. 21	42	728
Draftsmen and engineers. Certain supplies and instruments for.....	E. G. Soltmann.....	15,555	May 29	43	988
Draftsmen's and engineers' supplies and instruments.....	E. G. Soltmann.....	15,326	Mar. 27	42	1294
Drawers. Men's.....	J. Stiefel and B. M. Cohen.....	15,129	Jan. 24	42	300
Dress-shields.....	A. H. Brinkmann.....	15,610	June 19	43	1352
Dress-shields.....	I. B. Kleiwert.....	15,386	Apr. 24	43	394
Dress-shields.....	I. B. Kleiwert.....	15,387	Apr. 24	43	394
Dress-shields.....	I. B. Kleiwert.....	15,388	Apr. 24	43	394
Dress-shields.....	I. B. Kleiwert.....	15,436	May 8	43	636
Dress-shields.....	I. B. Kleiwert.....	16,017	Nov. 20	45	838
Drinks. Acidulated.....	G. G. Wchnner.....	15,955	Oct. 16	45	238
Drugs capable of trituration and of being formed into pills or pellets.....	A. S. Newcomb.....	15,110	Jan. 17	42	204
Dusters. Imitation-leather cloth.....	J. Hethersall & Co.....	15,319	Mar. 27	42	1294
Dyes.....	C. S. Burroughs.....	16,032	Nov. 27	45	950
Dyspepsia and indigestion. Preparation for the cure of.....	Bowance Medicine Co.....	16,072	Dec. 11	45	1186
Earthenware, and glazed tiles. Printed, white granite, general.....	T. & R. Boote.....	15,191	Feb. 21	42	728
Ejectors. Steam water.....	W. J. Sherriff.....	15,146	Jan. 31	42	366
Elixir against glairs.....	P. Gage, Fils.....	15,828	Sept. 4	44	1072
Elixir against glairs.....	P. Gage, Fils.....	15,829	Sept. 4	44	1072
Elixir against glairs.....	P. Gage, Fils.....	15,830	Sept. 4	44	1072
Embalming-fluid.....	E. F. Hill.....	15,613	June 19	43	1352
Embroideries. Hamburg.....	L. Lévy & Bros.....	15,206	Feb. 21	42	728
Emollient.....	W. W. Scott.....	15,217	Feb. 21	42	728
Emollient compound.....	J. Olcovich.....	15,471	May 15	43	710
Enamel.....	H. E. Aspinwall.....	15,940	Oct. 16	45	238
Enameling preparations.....	Dawsonamel Company.....	15,969	Oct. 30	45	464
Engravers' plates, dies, and tools.....	J. Sellers & Sons.....	15,675	July 10	44	112
Engraving on metal. Tools used in.....	A. Glardon.....	15,896	Sept. 25	44	1401
Envelope-paper and envelopes.....	Holyoke Envelope Company.....	15,122	Jan. 24	42	300
Envelope-paper and envelopes.....	Holyoke Envelope Company.....	15,123	Jan. 24	42	300
Envelope-paper and envelopes.....	Holyoke Envelope Company.....	15,124	Jan. 24	42	300
Envelopes.....	P. Arata.....	15,360	Apr. 17	43	254
Erysipelas. Cure for.....	H. Matthews.....	15,753	Aug. 7	44	572
Extract of beef.....	Liebig Extract of Beef Company.....	15,770	Aug. 14	44	702
Extract of sarsaparilla compound, extract of Jamaica ginger, liver and kidney pills, and cough-syrup.....	Kilgore & Wilson.....	15,588	June 12	43	1242
Extracts and other perfumes.....	W. H. Riker.....	15,307	Mar. 20	42	1172
Extracts for food. Flavoring.....	J. B. Clark.....	16,100	Dec. 18	45	1324
Extracts of meats.....	J. Maggi & Co.....	15,772	Aug. 14	44	702
Extracts of meats.....	J. Maggi & Co.....	15,799	Aug. 21	44	896
Extracts or sirups for making a beverage.....	Coffin & Wood Chemical Company.....	15,650	July 3	44	2
Extracts, perfumes, oils, and soaps.....	Bloomington & Levy.....	15,631	June 26	43	1460
Extracts, perfumes, oils, and soaps.....	Bloomington & Levy.....	15,632	June 26	43	1460
Extracts, perfumes, oils, and soaps.....	Bloomington & Levy.....	15,633	June 26	43	1460
Eye-water.....	E. Billsland.....	15,630	June 26	43	1460
Face-powder, hair-dye, and cologne. Medicated.....	J. A. Pozzoni Medicated Complexion Powder Company.....	15,855	Sept. 11	44	1190
Farinaceous compound with fruit flavorings.....	W. P. Clotworthy.....	15,742	Aug. 7	44	572
Fancets for barrels, &c. Wooden.....	J. Sommer, Jr.....	15,287	Mar. 13	42	1066
Feather pillows and bags of feathers.....	Ely, Collins & Hale.....	15,847	Sept. 11	44	1190
Feed-water purifiers and heaters.....	W. Webster & Co.....	15,735	July 31	44	452
Fence-cable. Barbed.....	Baker Wire Company.....	15,361	Apr. 17	43	254
Fertilizer.....	Cincinnati Deseccating Company.....	15,330	Apr. 3	43	2
Fertilizers.....	Bowker Fertilizer Company.....	15,103	Jan. 17	42	204
Fertilizers. Bone.....	Farmers Fertilizer Company.....	16,110	Dec. 25	45	1464
Fertilizers. Commercial.....	Bowker Fertilizer Company.....	15,761	Aug. 14	44	702
Fertilizers. Ground-bone.....	H. S. Miller & Co.....	15,209	Feb. 21	42	728
Fertilizers. Phosphates for.....	H. S. Miller & Co.....	15,181	Feb. 14	42	618
Fertilizers. Phosphates for.....	H. S. Miller & Co.....	15,183	Feb. 14	42	618
Fire-extinguishing powder.....	L. Buchbinder.....	15,887	Sept. 25	44	1404
Fireproofing. Compound for.....	Griffith's Pyrodene Fireproofing Company.....	15,119	Jan. 24	42	300
Fish. Boneless.....	Shute & Merchant.....	15,374	Apr. 17	43	254
Fish-lines, fish-hooks, fishing-reels and fishing-flies.....	United States Net and Twine Company.....	15,963	Oct. 23	45	350
Floor-gloss.....	F. Duttlinger.....	16,015	Nov. 20	45	838
Flour.....	Barbour & Hamilton.....	15,051	Jan. 10	42	100
Flour.....	Co-Operative Wholesale Society.....	15,846	Sept. 11	44	1190

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Flour.....	E. N. Gardner.....	15,667	July 10	44	112
Flour.....	D. M. Gedge.....	15,800	Aug. 21	44	826
Flour.....	D. M. Gedge.....	15,864	Sept. 11	44	1190
Flour.....	Hinkle, Greenleaf & Co.....	16,039	Dec. 4	45	1073
Flour.....	T. C. Jenkins.....	16,062	Dec. 4	45	1072
Flour.....	Marshall, Kennedy & Co.....	15,258	Mar. 6	42	966
Flour.....	Marshall, Kennedy & Co.....	15,390	Apr. 24	43	374
Flour.....	Marshall, Kennedy & Co.....	15,407	May 1	43	511
Flour.....	Marshall, Kennedy & Co.....	15,468	May 15	43	760
Flour.....	P. A. & S. Small.....	15,952	Oct. 16	45	245
Flour.....	E. Steinbrügge.....	15,238	Feb. 28	42	832
Flour.....	S. W. Weidler.....	15,224	Feb. 21	42	728
Flour and meal containing leavening properties.....	T. M. Holmes.....	15,298	Mar. 20	42	1172
Flour. Fancy winter-wheat patent.....	Gilbert, Waugh & Co.....	15,317	Mar. 27	42	1294
Flour, oatmeal, cornmeal, hominy, and grits.....	Newell Bros.....	15,184	Feb. 14	42	618
Flour. Roller-process.....	Gilbert, Waugh & Co.....	15,297	Mar. 20	42	1172
Flour. Self-raising.....	A. H. Staiger & Co.....	15,445	May 8	43	636
Flour. Wheat.....	Bliss & Co.....	16,029	Nov. 27	45	950
Flour. Wheat.....	Bliss & Co.....	16,030	Nov. 27	45	950
Flour. Wheat.....	Bourne, Graham & Fell.....	15,363	Apr. 17	43	254
Flour. Wheat.....	Crown Mills Company.....	16,014	Nov. 20	45	838
Flour. Wheat.....	Farwell & Rhines.....	15,314	Mar. 27	42	1294
Flour. Wheat.....	Farwell & Rhines.....	15,315	Mar. 27	42	1294
Flour. Wheat.....	C. A. Gambrill Manufacturing Company.....	16,121	Dec. 25	45	1464
Flour. Wheat.....	G. V. Hecker & Co.....	15,573	June 5	43	1120
Flour. Wheat.....	Smith & Frantz.....	16,107	Dec. 18	45	1324
Flour. Wheat.....	Winona Mill Company.....	15,309	Mar. 20	42	1172
Flour. Wheat.....	Winona Mill Company.....	15,310	Mar. 20	42	1172
Flour. Wheat.....	Marshall, Kennedy & Co.....	16,046	Nov. 27	45	950
Fodder-cutters and their attachments.....	Smalley Manufacturing Company.....	15,733	July 31	44	452
Food. Antiseptics for preserving perishable articles of.....	J. H. Bani, W. Maegerlein, and A. Bruee.....	15,737	Aug. 7	44	572
Food. Cattle.....	G. Fraser.....	15,255	Mar. 6	42	966
Food. Concentrated stock.....	J. H. Pollard.....	15,141	Jan. 31	42	386
Food. Condiment for animal.....	Woodrich & Co.....	15,328	Apr. 3	43	2
Food for infants.....	V. Dietrich.....	15,295	Mar. 20	42	1172
Fruits. Dried or preserved.....	DeLafield, Morgan, Kissel & Co.....	15,890	Sept. 25	44	1404
Fruits. Dried or preserved.....	DeLafield, Morgan, Kissel & Co.....	15,892	Sept. 25	44	1404
Fuel. Artificial.....	United States Fuel Company.....	16,117	Dec. 25	45	1464
Garters.....	G. Frost & Co.....	15,198	Feb. 21	42	728
Gas-burners.....	C. S. Upton.....	15,967	Oct. 23	45	350
Gin.....	P. Loopyt & Co.....	15,697	July 17	44	236
Gin.....	P. Loopyt & Co.....	15,698	July 17	44	236
Gin.....	Schade & Buysing.....	15,186	Feb. 11	42	618
Gin, wine, whisky, rum, liqueurs, brandy, and other similar liquors.....	Bode & Son.....	15,521	May 29	43	928
Ginghams.....	Berkshire Manufacturing Company.....	15,584	June 12	43	1212
Ginghams, tickings, and all cotton goods.....	J. Farnum & Co.....	15,529	May 29	43	928
Ginghams, tickings, and cotton goods.....	J. Farnum & Co.....	15,793	Aug. 21	44	826
Glassware. Hollow.....	La Compagnie des Cristalleries de Baccarat.....	15,293	Mar. 20	42	1172
Gloves.....	F. Maggioni.....	15,938	Oct. 23	45	350
Gloves.....	F. Maggioni.....	15,987	Nov. 6	45	524
Gloves.....	F. Maggioni.....	16,004	Nov. 13	45	714
Gloves. Kid or lamb skin leather.....	T. W. Stemmeler.....	16,067	Dec. 4	45	1072
Glucose, grape-sugar, and corn-sirup.....	American Glucose Company.....	15,627	June 26	43	1460
Gold, silver, and plated wares for household use.....	W. Rogers Manufacturing Company.....	16,128	Dec. 25	45	1461
Goods. Dress.....	L. Grehier.....	16,039	Nov. 27	45	950
Goods. Dress.....	R. B. MacLea & Co.....	15,655	July 3	44	2
Goods. Dress.....	J. Meyer & Co.....	15,874	Sept. 18	44	1296
Goods, including plush, velvet, and other pile fabrics. Textile piece.....	Sir Titus Salt, Bart., Sons & Company.....	15,877	Sept. 18	44	1296
Goods of cotton, wool, cotton and wool, cotton and silk, or wool and silk. Piece.....	Brigg, Neumann & Co.....	15,914	Oct. 2	45	2
Gum. Chewing.....	Adams & Sons.....	15,189	Feb. 21	42	728
Gum. Chewing.....	W. D. Chase.....	15,685	July 17	44	236
Gum. Chewing.....	C. T. Heisel.....	15,121	Jan. 24	42	300
Gum. Chewing.....	C. T. Heisel.....	15,533	May 29	43	988
Gum. Chewing.....	C. T. Heisel.....	15,748	Aug. 7	44	572
Gum. Chewing.....	C. T. Heisel.....	15,768	Aug. 14	44	702
Gunpowder.....	C. W. Curtis.....	15,727	July 31	44	452
Gunpowder, ammunition, and explosives.....	C. W. Curtis.....	15,811	Aug. 28	44	948
Hair-cleanser.....	Smith Brothers.....	15,219	Feb. 21	42	728
Hair clippers or cutters.....	McCoy & Sanders.....	15,303	Mar. 20	42	1172
Hair dressings or tonics.....	P. H. McMahon.....	15,774	Aug. 14	44	702
Hair. Preparation for the human.....	A. Rowland & Sons.....	15,093	Jan. 10	42	100
Hair-restorer.....	W. J. Thompson.....	15,954	Oct. 16	45	238
Hair-tonic.....	M. M. Harper.....	15,572	June 5	43	1120
Hammers.....	Simmons Hardware Company.....	16,094	Dec. 11	45	1196
Hammers.....	Simmons Hardware Company.....	16,095	Dec. 11	45	1196
Hams, shoulders, and bacon.....	Los Angeles Cold Storage Company.....	16,076	Dec. 11	45	1196
Hands and lips. Preparation for chapped.....	W. J. Pechin.....	15,305	Mar. 20	42	1172
Harvesting-machines and parts thereof.....	Aultman, Miller & Company.....	15,705	July 24	44	346
Hats.....	Triest & Co.....	15,314	Apr. 3	43	2
Hats and bonnets and millinery materials. Ladies'.....	L. G. Thompson.....	15,131	Jan. 21	42	300
Hats and caps.....	Friedlander & Koch.....	15,091	Jan. 10	42	100
Hats and caps.....	Société Anonyme Manufacture de Feutres et Chapeaux.....	16,019	Nov. 20	45	838
Hats, caps, and helmets.....	L. Bennett & Co.....	15,137	Jan. 31	42	386
Hats, caps, and helmets.....	L. Bennett & Co.....	15,153	Jan. 31	42	386
Hats, caps, and helmets.....	L. Bennett & Co.....	15,154	Jan. 31	42	386
Hats. Men's and boys'.....	C. H. Garden & Co.....	15,689	July 17	44	236
Hats. Men's soft and stiff fur and wool.....	Cook, Lyman, Smith & Company.....	15,331	Apr. 3	43	2

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Headache and neuralgia. Liquid preparation to be applied externally to relieve	P. Baldwin	15,982	Nov. 6	45	594
Headache-cure	D. Herring	16,002	Nov. 13	45	714
Hepatic compound	J. F. Neal	15,597	June 12	43	1242
Herb compound for certain diseases, a liniment, and a worm medicine.	A. S. Palmer	15,247	Feb. 28	42	832
Herbs to be used as a tea. Composition of	Quaker Remedies Co.	15,373	Apr. 17	43	254
Hog meats and lard	Co-Operative Wholesale Society	15,892	Sept. 4	44	1072
Hoof-stimulant	O. J. Murphy	15,139	Jan. 31	42	386
Horse and mule shoes	Greenwood Horse Shoe Company	15,463	May 15	43	760
Horse-blankets	W. Ayres & Sons	15,101	Jan. 17	42	204
Horse-blankets	W. Ayres & Sons	15,117	Jan. 24	42	300
Horse-blankets	W. Ayres & Sons	15,134	Jan. 31	42	386
Horse-blankets, covers, and nets, saddle-housings, lap-ropes, and lap-dusters.	W. Ayres & Sons	15,100	Jan. 17	42	204
Horseshoe-nails	Simmons Hardware Company	15,620	June 19	43	1352
Horseshoe-nails	S. G. Winternitz & Bro	16,025	Nov. 20	45	838
Hose. Hydraulic	Eureka Fire Hose Company	15,528	May 29	43	988
Hose. Rubber	Harper & Reynolds Company	15,496	May 22	43	890
Hose-supporters.	Warren Hose Supporter Co	15,188	Feb. 14	42	618
Hosiery	O. Heinze & Co	15,351	Apr. 10	43	120
Hosiery	E. Scheitlin & Co	15,412	May 1	43	514
Hosiery	E. B. Sudbury	15,221	Feb. 21	42	728
Hosiery	Wex & Söhne	15,379	Apr. 17	43	254
Hosiery and gloves	E. B. Sudbury	15,222	Feb. 21	42	728
Hot-air furnaces.	R. Wheeler, Son & Co	15,717	July 24	41	346
Hyoscyamin known as duboisin. Preparation of	E. Merck	15,989	Nov. 6	45	594
Ice-cream and water-ices	R. V. Kane	16,073	Dec. 11	45	1196
Incrustation preventive and remover. Boiler.	Imperial Chemical Co.	15,385	Apr. 24	43	394
Injection of milkweed	Roy Drug Co.	15,248	Feb. 28	42	832
Inks.	T. Davids Company	15,706	July 24	44	346
Inks. Lithographic and printing	J. Hendricks	16,057	Dec. 4	45	1072
Inks. Writing	J. W. Popham & Co	15,957	Oct. 9	45	130
Insects and for disinfecting purposes. Articles manufactured with naphthaline for destroying	White Tar Co.	15,993	Nov. 6	45	594
Iron and bituminous coal. Pig.	Ohio and Western Coal and Iron Company.	15,284	Mar. 13	42	1066
Iron. Tincture of	Athenstaedt & Redeker	16,027	Nov. 27	45	950
Isinglass, gelatine, and gelatinous substances.	G. P. Swinborne & Co	15,447	May 8	43	636
Isinglass, gelatine, and gelatinous substances.	G. P. Swinborne & Co	15,448	May 8	43	636
Jewelry. Certain ornamental	H. C. Luther	15,834	Sept. 4	44	1072
Jewelry. Wash for cleaning and polishing	A. W. Isaacs	15,107	Feb. 7	42	494
Kerosene	Empire Refining Company	15,848	Sept. 11	44	1190
Knit wearing-apparel	Lackawana Mills	15,501	May 22	43	890
Knives, razors, shears, and scissors	J. Sellers & Sons	15,676	July 10	44	112
Lamp chimneys	Minneapolis Glass Company	15,391	Apr. 24	43	394
Lamp chimneys and wicks for certain lamps	C. S. Upton	15,398	Apr. 24	43	394
Lard	Rohe & Brother	15,341	Apr. 3	43	2
Lard	Rohe & Brother	15,645	June 26	43	1460
Laundry-blue	R. F. S. Heath	15,202	Feb. 21	42	728
Laundry-blue	H. W. Weeks	15,703	July 17	44	236
Laundry preparations	J. Ascough	15,583	June 12	43	1242
Laundry purposes. Solid polishing compound for	R. F. S. Heath	15,088	Jan. 10	42	100
Leather. Goat and sheep skin	J. Helburn	15,692	July 17	44	236
Linon and hemp goods of all descriptions	R. T. Webb	15,678	July 10	44	112
Liniment	L. H. Goldberg	15,916	Oct. 2	45	2
Liniment	W. J. Hughes	15,434	May 8	43	636
Liniment	J. D. James	15,974	Oct. 30	45	464
Liniment and blister and hoof-salve. Spavin	G. Tonnar	15,841	Sept. 4	44	1072
Liniment for internal and external use	L. Fisher	15,106	Jan. 17	42	204
Liniment. Horse and cattle	J. G. Love	15,325	Mar. 27	42	1294
Liniment, ointment, and condition powders	T. Veazie	15,604	June 12	43	1242
Liniments	F. H. Reed	15,442	May 8	43	636
Linoleum	German Linoleum Manufacturing Company.	15,767	Aug. 14	41	702
Liquors or cordials	Rocher Frères	15,673	July 10	44	112
Liquid-driers	Southern Company	16,020	Nov. 20	45	838
Lotion for the skin	L. S. Brigham	15,252	Mar. 6	42	966
Macaroui	C. Rivoire and T. Carrot	15,144	Jan. 31	42	386
Mainsprings for time-pieces	L. Hammel & Co.	15,200	Feb. 21	42	728
Malaria cure, cough and lung balsam, bitters, nerve and bone liniment, rose ointment, worm-medicine, and pills	H. I. Hough	15,973	Oct. 30	45	464
Malarial compound. Anti-	Dr. J. G. Wannamaker Manufacturing Company.	15,785	Aug. 14	41	702
Malt extract.	J. Hoff	15,164	Feb. 7	42	494
Malt liquors	S. Allsopp & Sons	16,053	Dec. 4	45	1072
Meats. Preserved	Cunningham & De Fourier Company	16,083	Dec. 11	45	1196
Meats. Preserved	Cunningham & De Fourier Company	16,084	Dec. 11	45	1196
Medical compound for aiding digestion and curing dyspepsia.	New York Pharmacal Association	15,368	Apr. 17	43	254
Medical compound for external and internal use	Patton Bros.	15,876	Sept. 18	44	1296
Medical compound for the cure of certain named diseases.	C. F. Kittredge	15,538	May 29	43	988
Medical compound of a granular effervescent nature, being a brain and nerve food and a sedative.	Reed & Carrick	15,732	July 31	41	452
Medical compounds. Certain named	W. B. Riker & Son	15,661	July 3	44	2
Medical compounds for curing skin diseases.	B. Jaffé & Darmstaedter	15,478	May 22	43	890
Medical compounds named. Various	S. Colcord	15,311	Mar. 27	42	1294
Medical compounds. Vegetable	C. Mendenhall	15,754	Aug. 7	44	572
Medical cordials	A. G. Franklin	15,894	Sept. 25	44	1404
Medical powders	C. F. Cleveland	15,485	May 22	43	890
Medical preparations for use in various fevers	W. A. Walling	16,022	Nov. 20	45	838
Medical remedies. Certain named	F. Eberlein	15,812	Aug. 28	44	948
Medical remedies. Certain named	F. A. Richter	15,143	Jan. 31	42	286
Medical tea	D. Back & Co.	15,348	Apr. 10	43	120



*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Medicated food for animals .....	F. E. Sanborn .....	15,639	June 26	43	1460
Medicated foods .....	A. Horlick .....	15,587	June 12	43	1242
Medicated foods for men and animals, and sirups, balsams, and ointments. ....	A. Horlick .....	15,708	July 24	44	346
Medicated troches .....	L. B. Jones .....	15,920	Oct. 2	45	2
Medicated wafers .....	M. Gessler .....	15,895	Sept. 25	44	1404
Medicinal extracts, pills, elixirs, and chemicals .....	Hanco Brothers & White .....	15,364	Apr. 17	43	254
Medicinal herbs. Certain preparations of .....	G. W. Wright .....	15,680	July 10	44	112
Medicinal lotion for the skin .....	J. A. and D. F. Davenport .....	15,244	Feb. 23	42	832
Medicinal lotions for removing blemishes from the skin .....	M. Burdick .....	15,863	Sept. 11	44	1190
Medicinal oil or liniment .....	Acumian & Son .....	15,418	May 8	43	636
Medicinal powder .....	L. Redmond .....	16,127	Dec. 25	45	1464
Medicinal preparation for the cure of diseases of the blood and skin. ....	E. Lilly & Company .....	15,593	June 12	43	1242
Medicinal preparation for use in certain named diseases. ....	J. T. Davenport .....	15,104	Jan. 17	42	204
Medicinal preparation for uterine diseases .....	Dios Chemical Company .....	15,638	June 26	43	1460
Medicinal preparation to be used either as a potion or a lotion. ....	G. F. Hutchison & Co. ....	15,796	Aug. 21	44	826
Medicinal preparations generally .....	H. M. O'Neil .....	15,369	Apr. 17	43	254
Medicinal remedies. Certain .....	Standard Medicine Company .....	15,251	Feb. 23	42	832
Medicinal salts .....	C. H. Zahn .....	15,953	Oct. 16	45	238
Medicinal spring-water. ....	Missisquoi Mineral Springs Company. ....	15,901	Sept. 23	44	1404
Medicinal tinctures and fluid extracts .....	Weeks & Potter .....	15,679	July 10	44	112
Medicinal wash for the month, throat, and gums .....	C. R. Thiers .....	15,840	Sept. 4	44	1072
Medicine .....	D. Kennedy .....	15,323	Mar. 27	42	1294
Medicine and lung-healer. Pulmonary. ....	D. F. Powell .....	15,355	Apr. 10	43	120
Medicine. Antiseptic or blood-purifying .....	H. G. Grisbaugh .....	15,586	June 12	43	1242
Medicine. Blood-purifying .....	J. A. Callahan .....	15,740	Aug. 7	44	572
Medicine. Blood-purifying .....	Moore Manufacturing Company .....	15,212	Feb. 21	42	728
Medicine. Capsules containing .....	J. W. Gedney .....	15,176	Feb. 14	42	618
Medicine composed of iron and sarsaparilla. Tonic .....	C. H. Schmidt and W. B. Starbird .....	15,718	July 24	44	316
Medicine. Cough .....	M. L. Keyes .....	15,537	May 29	43	988
Medicine. Cough .....	J. McLeish .....	15,541	May 29	43	988
Medicine. Cough .....	S. D. Vansickle .....	15,906	Sept. 25	44	1404
Medicine. Expectorant .....	W. H. Riker .....	15,514	May 22	43	890
Medicine for blood, liver, and kidney diseases .....	J. H. Schnaf .....	16,116	Dec. 25	45	1464
Medicine for certain named diseases .....	A. Wilson & Co. ....	15,151	Jan. 31	42	386
Medicine for certain named diseases .....	B. M. Woolley & Co .....	15,152	Jan. 31	42	386
Medicine for diphtheria and croup .....	F. Horst & Co .....	15,972	Oct. 30	45	464
Medicine for diseases of the blood, nerves, and digestive organs. ....	Rothschild Bros. & Co .....	15,904	Sept. 25	44	1404
Medicine for diseases of the liver and kidneys .....	Sparks Medicine Company .....	15,147	Jan. 31	42	386
Medicine for diseases of the liver and stomach. Fluid. ....	N. B. Gates and E. T. Smith .....	15,946	Oct. 16	45	238
Medicine for dyspepsia and pulmonary diseases .....	Hunt Kiddie Company .....	15,366	Apr. 17	43	254
Medicine for female diseases .....	J. H. Schaefer .....	15,250	Feb. 28	42	832
Medicine for horses and cattle .....	Fl. J. Leimer .....	15,592	June 12	43	1242
Medicine for internal use and for certain diseases. Liquid .....	B. Fragner .....	15,569	June 5	43	1120
Medicine for relieving epileptic fits and other nervous diseases. ....	Dr. S. A. Richmond Nervine Company. ....	15,274	Mar. 6	42	966
Medicine for rheumatism and kidney diseases .....	Buckeye Medicine Co. ....	15,739	Aug. 7	44	572
Medicine for rheumatism, cholera, dyspepsia, sprains, wounds, and lung-diseases. ....	J. A. Soule .....	16,000	Nov. 13	45	714
Medicine for the brain, nerves, and muscles. Tonic .....	E. E. Matthews .....	15,752	Aug. 7	44	572
Medicine for the cure of all throat and lung diseases .....	G. M. Brown and J. M. Hunnicutt .....	15,178	Feb. 14	42	618
Medicine for the cure of certain named diseases .....	W. W. Neal and H. W. Todd .....	15,092	Jan. 10	42	100
Medicine for the cure of coughs and colds .....	G. Kneuper .....	15,125	Jan. 24	42	300
Medicine for the cure of headache, sea-sickness, epilepsy, and nervous debility. ....	F. Newbery & Sons .....	15,246	Feb. 28	42	832
Medicine for the cure of malaria and liver troubles. ....	J. Kerr .....	15,833	Sept. 4	44	1072
Medicine for the cure of rheumatism and chronic blood diseases. ....	C. F. Kirkendall .....	15,589	June 12	43	1242
Medicine for the cure of scrofula, syphilis, and malaria .....	A. B. Daniel .....	15,823	Sept. 4	44	1072
Medicine for the cure of the tobacco habit .....	Universal Remedy Company .....	15,187	Feb. 14	42	618
Medicine for the cure of throat diseases .....	W. D. Neel .....	16,048	Nov. 27	45	950
Medicine for the ear. Liquid .....	J. D. Howe & Co. ....	15,433	May 8	43	636
Medicine for the treatment of gonorrhea and gleet .....	J. S. Broas .....	15,789	Aug. 21	44	826
Medicine. Proprietary invigorant .....	S. B. Murray .....	15,259	Mar. 6	42	966
Medicine to aid digestion. Liquid .....	C. Ludlow & Co. ....	15,750	Aug. 7	44	572
Medicine to be applied to the nostrils and throat .....	F. M. Blodgett .....	15,136	Jan. 31	42	386
Medicine. Tonic .....	J. M. Alloways .....	15,626	June 26	43	1460
Medicine. Tonic .....	H. Ballantine .....	15,628	June 26	43	1460
Medicine. Tonic proprietary .....	W. C. McPike and J. C. Fox .....	15,934	Oct. 9	45	130
Medicines. Certain named .....	Bloomington Bros .....	15,943	Oct. 16	45	238
Medicines for coughs and colds and lung difficulties .....	W. H. Horne and W. H. Abel .....	15,971	Oct. 30	45	464
Medicines in the form of liquids, pills, and powders. Proprietary .....	J. R. Isbell and H. P. Sanls .....	15,138	Jan. 31	42	386
Medicines named. Certain proprietary .....	Tyler & Embree .....	15,879	Sept. 18	44	1296
Medicines. Rheumatic and gout .....	G. W. Brooks .....	15,931	Oct. 9	45	130
Metal. Anti-friction .....	American Improved Anti-Friction Metal Company. ....	15,399	May 1	43	514
Metal articles for decoration and for toilet and table use .....	W. J. Miller and H. Berry .....	15,642	June 26	43	1460
Metal. Babbitt .....	J. Bostwick .....	15,289	Mar. 20	42	1172
Metal-polishing preparation .....	Savage Bros .....	15,725	July 24	44	346
Metals. Compounds for cleaning and polishing .....	Matchless Metal Polish Company. ....	15,988	Nov. 6	45	594
Milk. Condensed .....	J. Babillon .....	15,736	Aug. 7	44	572
Milk. Condensed .....	H. Y. Canfield .....	15,764	Aug. 14	44	702
Milk. Condensed .....	New York Condensed Milk Company. ....	15,801	Aug. 21	44	826
Mince-meat for pies .....	Henderson, Adams & Co. ....	15,107	Jan. 17	42	204
Mineral water and mineral salts and pastils and troches made from the salts. ....	Koenig Wilhelm's-Felsenquellen. ....	15,590	June 12	43	1242
Mineral water and salt. Natural .....	Eisner & Mendelson Company .....	15,175	Feb. 14	42	618
Mineral water. Carbonized and natural .....	J. P. C. Schmit .....	15,981	Oct. 30	45	464

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page
Mineral water, lozenges, mineral salts and powders, being the products, natural and prepared, of the Soden mineral springs.	P. H. Fay	16,016	Nov. 20	45	838
Mineral water. Natural	Apollinaris Company	15,132	Jan. 31	42	386
Mineral water. Natural	Apollinaris Company	15,868	Sept. 18	44	1296
Mineral waters	Regnaris Company	15,999	Nov. 13	45	714
Molasses and sirup	R. H. Chaffe	16,010	Nov. 20	45	838
Mowers. Lawn	Lloyd & Snpplee Hardware Co	15,852	Sept. 11	44	1190
Mowers. Lawn	Lloyd & Snpplee Hardware Co	15,853	Sept. 11	44	1190
Music-boxes	M. J. Paillard & Co.	16,089	Dec. 11	45	1196
Musical instruments. Stringed	Lyon & Healy	15,180	Feb. 14	42	618
Nails. Horse	Livingston Nail Co.	15,502	May 22	43	890
Nails. Horse	C. M. McClung & Co.	15,542	May 29	43	988
Nails. Wire	Pittsburgh Wire Nail Company	15,372	Apr. 17	43	254
Needles	H. Milward & Sons	15,656	July 3	44	2
Needles	H. Milward & Sons	15,731	July 31	44	452
Needles and needles for hand-sewing. Machine	C. M. Boland	15,944	Oct. 16	45	238
Nets. Leather fly	D. Fishbeck & Son	15,612	June 19	43	1352
Newspapers	J. S. Conroy	15,382	Apr. 24	43	394
Newspapers	Housewife Publishing Co	15,165	Feb. 7	42	491
Oil. Beef	J. Stern	15,701	July 17	44	236
Oil. California olive	Merriman Manufacturing Company	15,439	May 8	43	636
Oil-cloths, &c. Metallic binding for	O. Tuttle and C. Fineran	15,878	Sept. 18	44	1296
Oil. Cylinder	F. B. Hower	16,104	Dec. 18	45	1324
Oil. Illuminating and lubricating	Kosmic Oil Co	15,500	May 22	43	890
Oil. Kerosene	W. Briscoe & Son	15,192	Feb. 21	42	728
Oil. Kerosene	H. W. Peabody & Co	16,126	Dec. 25	45	1464
Oil. Lubricating	W. P. Feeney	15,254	Mar. 6	42	966
Oil. Olive	Cusimano Bros.	15,459	May 15	43	760
Oil. Olive	P. Mottet & Cie	15,126	Jan. 24	42	300
Ointment or salve	S. R. Payne	15,819	Aug. 28	44	948
Ointment. Veterinary	S. Heiser	15,670	July 10	44	112
Optical instruments	Spencer Optical Manufacturing Company	15,979	Oct. 30	45	464
Oxide of zinc, dry and in oil, spelter, and sheet-zinc	La Soci�� de la Vieille Montagne	15,275	Mar. 6	42	966
Oysters, fruits, and vegetables in contradistinction to canned or preserved goods. Fresh	C. H. Pearson & Co.	15,512	May 22	43	890
Oysters, lobsters, and fish. Fresh	J. H. Brookmire & Co	15,762	Aug. 14	44	702
Oysters. Shucked raw and hermetically-sealed	J. Lindington & Co.	15,798	Aug. 21	44	826
Packing constructed wholly of flax fiber with a red-cord center	W. T. Y. Schenck	15,674	July 10	44	112
Packings. Piston	B. W. Goodsell	16,038	Nov. 27	45	950
Packings for machinery	A. Montgomery	15,169	Feb. 7	42	494
Paint manufactured from the red oxide of iron. Metallic	Clinton Metallic Paint Company	15,790	Aug. 21	44	826
Paint. Metallic	Prince's Metallic Paint Company	15,546	May 29	43	988
Paint. White-lead	Davidson & Knowles Company	15,995	Nov. 13	45	714
Paints and pigments	T. Hubback & Son	15,694	July 17	44	236
Paints. Fire-proof	S. Cabot	15,763	Aug. 14	44	702
Paints used on fabrics and rendering them washable. Chemical fluid mixed with oil	P. Blackman	15,738	Aug. 7	44	572
Paints, varnishes, dry colors, and paint ingredients	Farrand, Williams & Co.	15,313	Mar. 27	42	1294
Painters' use. Liquid-drier for	Southern Company of New York	16,051	Nov. 27	45	950
Pantaloon	Improved Newburgher Pantaloon Manufacturers	15,696	July 17	44	236
Pantaloon	D. Marks	15,921	Oct. 2	45	2
Pantaloon, coats, and vests	Marx & Haas	15,233	Feb. 28	42	832
Paper and paper-fiber lint. Blotting, matrix, book, and colored cover	J. Parker & Son	15,996	Nov. 13	45	714
Paper bags	Union Bag and Paper Company	15,558	May 29	43	988
Paper bags	Union Bag and Paper Company	15,559	May 29	43	988
Paper bags	Union Bag and Paper Company	15,560	May 29	43	988
Paper. Blotting	J. Parker & Son	15,997	Nov. 13	45	714
Paper. Blotting	J. Parker & Son	15,998	Nov. 13	45	714
Paper. Copying and white and colored tissue	R. R. Vernon	16,068	Dec. 4	45	1072
Paper. Copying and white and colored tissue	R. R. Vernon	16,069	Dec. 4	45	1072
Paper in sheets and pads. Blotting	H. S. Crocker & Co	15,636	June 26	43	1460
Paper. Note	H. S. Crocker & Co	15,994	Nov. 13	45	714
Paper. Toilet	J. T. Moore	15,577	June 5	43	1120
Paper. Toilet and wrapping	Albany Perforated Wrapping Paper Company	15,347	Apr. 10	43	120
Paper. Water-closet	H. S. Crocker & Co	15,635	June 26	43	1460
Paper. Water-closet	H. S. Crocker & Co	15,637	June 26	43	1460
Pastes for skin diseases and for purifying the complexion	N. N. Bickford	16,082	Dec. 11	45	1196
Pavements. Artificial stone and cement and concrete	W. Krause & Son	15,539	May 29	43	988
Pens, except those made of precious metals or in imitation of the same. Metallic	D. Leonardt & Co.	15,369	Apr. 24	43	394
Pens. Gold	J. Foley	15,530	May 29	43	988
Pens, inks, and nibs	Consolidated Agency Company	16,012	Nov. 20	45	838
Pens. Steel	Ormiston & Glass	15,805	Aug. 21	44	826
Perfume. Toilet	P. M. Lorenz	15,302	Mar. 20	42	1172
Perfumery	Donssan French Perfumery Company	15,487	May 22	43	890
Perfumery	C. E. Foote and C. C. Jenks	16,103	Dec. 18	45	1324
Perfumery	Ladd & Coffin	15,305	Feb. 21	42	728
Perfumery	Lazell, Dalley & Co	15,361	Mar. 20	42	1172
Perfumery, sachet-powder, and other toilet preparations	Lazell, Dalley & Co	15,360	Mar. 20	42	1172
Perfumery soaps, cosmetics, hair-oils, perfumes, tooth-paste, &c.	Crown Perfumery Co	15,965	Oct. 23	45	350
Perfumes and odoriferous and flavoring extracts	Nonantum Worsted Company	15,802	Aug. 21	44	826
Perfumes and odoriferous and flavoring extracts	Nonantum Worsted Company	15,803	Aug. 21	44	826
Perfumes and perfumed articles for the toilet	J. & E. Atkinson	15,681	July 17	44	236
Perfumes, both liquid and dry	W. D. Freeman	15,945	Oct. 16	45	238
Pharmaceutical and medical preparations generally	B. Fragner	15,356	Apr. 10	43	120
Pharmaceutical preparations	A. Paradis	15,370	Apr. 17	43	254
Phosphate. Ammoniated dissolved-bone	H. S. Miller & Co	15,182	Feb. 14	42	618

## Alphabetical list of trade-marks—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Photographic cameras and sensitized plates and films therefor.	Eastman Dry Plate and Film Company.	15,825	Sept. 4	44	1072
Photographic flash-light material.	T. H. McCollin & Co.	15,699	July 17	44	236
Photographic paper for making prints.	E. & H. T. Anthony & Company.	15,400	May 1	43	514
Photographic purposes. Albumen paper for.	J. A. Kuorr.	15,437	May 8	43	636
Photographic use. Albumenized paper for.	Buchanan, Bromley & Co.	15,193	Feb. 21	42	728
Piano-forti and pianinos.	C. Bechstein.	16,099	Dec. 18	45	1324
Picture supports or hangers. Certain.	Brinkerhoff Company.	15,073	Jan. 3	42	2
Pies.	H. Copperthite & Co.	16,037	Nov. 27	45	950
Pills.	G. Hahn.	16,040	Nov. 27	45	950
Pills.	G. Higgins.	15,231	Feb. 28	42	832
Pills.	C. W. Palmer.	15,235	Feb. 28	42	832
Pills.	Scotch Oats Essence Company.	15,443	May 8	43	636
Pills and baby-sirup. Liver.	R. E. Townsends.	15,149	Jan. 31	42	386
Pills. Anodyne.	J. Garst.	16,112	Dec. 25	45	1464
Pills. Cod-liver-oil.	Rigard & Chapoteaut.	15,306	Mar. 20	42	1172
Pills, liniment, tonic, cough-sirup, and female regulator.	D. R. Fly & Co.	15,489	May 22	43	890
Pills. Purgative.	Acuman & Son.	15,417	May 8	43	636
Pipe and couplings for the same. Metallic.	Spiral Weld Tube Company.	15,171	Feb. 7	42	494
Plaster bas-reliefs, statuary, statuettes, moldings, and signs.	Bas-Relief Manufacturing Company.	15,380	Apr. 21	43	894
Plaster composition for architectural purposes.	Adamant Manufacturing Company.	15,476	May 22	43	390
Plastic composition. Articles made of a.	W. M. Welling.	15,960	Oct. 30	45	464
Plows and plow-castings.	Wrenn, Whitehurst & Co.	15,928	Oct. 2	45	2
Plows and plow-castings.	Wrenn, Whitehurst & Co.	15,929	Oct. 2	45	2
Plows. Furrow.	Universal Plow Company.	15,223	Feb. 21	42	728
Plumbers' earthenware.	Colwell Lead Company.	15,087	Jan. 10	42	100
Poison. Bedbug.	H. Taylor, Sr.	15,288	Mar. 13	42	1066
Polish. Leather-oil.	H. J. Max Stosch.	15,603	June 12	43	1242
Polish or dressing. Shoe.	Eclipse Cement Company.	15,424	May 8	43	636
Pomades for toilet use.	J. E. Brearey.	15,666	July 10	44	112
Pork and beef products and lard.	J. H. Brown.	15,886	Sept. 25	44	1404
Porous plaster, throat-tablets, infant medicine, tonic, and balsam.	Southern Company of New York.	16,080	Dec. 11	45	1196
Porter, ale, stout, lager-beer and soda and mineral waters.	W. F. Hollwedel.	15,654	July 3	44	2
Potato-flour and potato-starch and all potato-starch products, including dextrine.	Norddeutsche Kartoffelmehl Fabrik.	15,260	Mar. 6	42	966
Potato-flour and potato-starch and all potato-starch products, including dextrine.	Norddeutsche Kartoffelmehl Fabrik.	15,509	May 22	43	890
Powder, soap, and compounds for cleaning and polishing metals.	Coffin, Redington & Co.	15,292	Mar. 20	42	1172
Powders and pills.	O. L. Harries.	16,042	Nov. 27	45	950
Powders. Condition.	J. C. Gage.	15,333	Apr. 3	43	2
Powders. Horse and cattle.	Spencer & Brown.	15,444	May 8	43	636
Preparation for assimilating food, promoting digestion, and regulating the bowels. Vegetable.	J. H. Vadakin.	15,475	May 15	43	760
Preparation used as an emmenagogue.	N. A. and C. G. Lloyd.	15,114	July 24	44	316
Preparations for use in throat and lung diseases. Certain.	Morrison & Deprez.	15,950	Oct. 16	45	238
Printed periodical publication.	Seeger & Guernsey Company.	15,552	May 29	43	988
Printers' inking-rollers. Composition for.	A. Van Bibber.	15,172	Feb. 7	42	494
Printing. Gage-pins, feed-guides, and other registering apparatus, tools, and machinery used in.	E. L. Megill.	15,234	Feb. 28	42	832
Printing-presses, types, type ornaments, and printers' tools.	Union Type Foundry.	15,861	Sept. 11	44	1190
Prints and cotton piece-goods.	Arnold Print Works.	15,786	Aug. 21	44	826
Prints and cotton piece-goods.	Arnold Print Works.	15,787	Aug. 21	44	826
Prune-juice.	J. Barrett.	15,942	Oct. 16	45	238
Pulmonary sirup for human use.	W. R. Ashurst.	15,809	Aug. 28	44	948
Quinine. Preparation of.	L. B. Weld.	15,449	May 8	43	636
Quinine. Preparation of.	L. B. Weld.	15,450	May 8	43	636
Radiators.	A. A. Griffing Iron Company.	15,278	Mar. 13	42	1066
Radiators.	A. A. Griffing Iron Company.	15,404	May 1	43	514
Radiators.	T. H. Williams and S. D. Tompkins.	15,414	May 1	43	514
Radiators.	T. H. Williams and S. D. Tompkins.	15,520	May 22	43	890
Radiators. Steam or hot-water.	Pierce Steam Heating Co.	15,441	May 8	43	636
Razor-strops.	Union Cutlery Company.	15,721	July 24	44	346
Razors.	W. H. Hambleton and R. Vom Cleff.	15,747	Aug. 7	44	572
Razors. Safety.	Son Brothers & Co.	15,663	July 3	44	2
Refrigerators and water-coolers.	H. B. Leach.	15,591	June 12	43	1242
Remedies for consumption, rheumatism, and all diseases arising from impure blood. Vegetable.	J. W. Wamaker.	15,758	Aug. 7	44	572
Remedies for promoting the growth of the teeth and bones.	M. J. Anderson & Co.	15,911	Oct. 2	45	2
Remedies for rheumatism, gout, &c.	Reynolds Manufacturing Company.	15,602	June 12	43	1242
Remedies or liniments. Topical.	W. H. Griffith.	15,948	Oct. 16	45	238
Remedies. Tonic and expectorant.	A. B. and O. M. Whitaker and H. Suow.	15,927	Oct. 2	45	2
Remedy. Catarrh.	J. R. Miller.	15,935	Oct. 9	45	130
Remedy. Croup.	F. Wortz, Jr.	15,561	May 29	43	988
Remedy for blood impurities.	H. C. Peckham.	15,599	June 12	43	1212
Remedy for catarrh and kindred diseases.	King Manufacturing Co.	15,080	Jan. 3	42	2
Remedy for chicken-cholera.	F. T. Montague & Co.	15,168	Feb. 7	42	494
Remedy for diphtheria.	A. T. McKittrick.	15,470	May 15	43	760
Remedy for diseases of the urinary system.	A. Lagmann.	15,540	May 29	43	988
Remedy for dyspepsia.	W. T. Lindley.	15,467	May 15	43	760
Remedy for dyspepsia.	G. Groder & Co.	15,668	July 10	44	112
Remedy for dyspepsia, liver complaint, and consumption.	Dr. J. G. Wannamaker Manufacturing Company.	15,784	Aug. 14	44	702
Remedy for external and internal use and for certain diseases. Certain.	J. L. Connelly.	15,651	July 3	44	2
Remedy for gout and rheumatism.	C. H. Rogers.	15,780	Aug. 14	44	702
Remedy for phthisis, neurasthenia, constipation, and intestinal indigestion.	P. Litchfield.	15,713	July 24	44	346
Remedy for rheumatism.	Reed & Carnrick.	15,601	June 12	43	1212
Remedy for the cure of pulmonary diseases.	Schwarz & Goemmel.	16,018	Nov. 20	45	838
Remedy. Indian blood.	J. M. Allison.	16,003	Nov. 13	45	714
	H. H. Hopkins.	15,640	June 26	43	1460

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Ribbons .....	Johnson, Cowdin & Co. ....	15,498	May 22	43	890
Ribbons .....	Johnson, Cowdin & Co. ....	15,499	May 22	43	890
Ribbons .....	Johnson, Cowdin & Co. ....	15,615	June 19	43	1352
Ribbons and broad silks .....	J. Nightingale .....	16,050	Nov. 27	45	910
Ribbons and piece silks .....	Murphy, Grant & Co. ....	15,170	Feb. 7	42	494
Ribbons and piece silks .....	Murphy, Grant & Co. ....	15,408	May 1	43	514
Roofing fabric .....	Druid Felt Company .....	15,728	July 31	44	452
Rope for transmission of power over pulleys and for hoisting purposes.	Dodge Manufacturing Company .....	15,105	Jan. 17	42	204
Rope for transmitting power over pulleys and for hoisting purposes.	Dodge Manufacturing Company .....	15,118	Jan. 24	42	300
Rubber boots and shoes .....	Hamilton Brown Shoe Company .....	15,851	Sept. 11	44	1190
Rubber boots and shoes .....	Hamilton Brown Shoe Company .....	15,897	Sept. 25	44	1404
Rubber boots, shoes, umbrellas, and conducting-hose .....	Dunlap, Lawton & Hall .....	15,488	May 22	43	890
Rubber goods. Soft .....	India Rubber Comb Company .....	15,166	Feb. 7	42	494
Rubber mats .....	New York Belting and Packing Company.	15,353	Apr. 10	43	120
Rubber shoes .....	W. S. Nott Company .....	15,854	Sept. 11	44	1190
Ruchings. Ladies' .....	E. Slayton .....	15,218	Feb. 21	42	723
Safe .....	Alpine Safe Co. ....	15,190	Feb. 21	42	723
Salt .....	J. Corbett .....	15,420	May 8	43	636
Salt .....	J. Corbett .....	15,421	May 8	43	636
Salt .....	J. Corbett .....	15,888	Sept. 25	44	1104
Salt .....	J. Corbett .....	16,001	Nov. 13	45	714
Salt. Blocks of natural .....	Chicago Sawed Salt-Block Company .....	15,174	Feb. 14	42	18
Salt. Table and dairy .....	Diamond Crystal Salt Company .....	15,422	May 8	43	636
Salts. Smelling .....	W. S. Thomson .....	16,021	Nov. 20	45	818
Salt-peter .....	Preservalline Manufacturing Company.	15,185	Feb. 14	42	618
Salve .....	A. Berthold .....	15,460	May 22	43	890
Salve .....	A. Berthold .....	15,481	May 22	43	890
Salve .....	L. A. Canterbury .....	15,195	Feb. 21	42	723
Salve .....	C. S. Phelps .....	15,544	May 20	43	988
Salve .....	W. L. Sharrer and W. J. Murphy .....	16,079	Dec. 11	45	1196
Salve or ointment .....	M. Sulz-Bacher .....	15,724	July 24	44	346
Salve. Toilet .....	F. M. Towne .....	15,556	May 20	43	988
Sardines .....	F. Reiset .....	16,106	Dec. 18	45	1324
Sardines .....	J. Violetti, Bird & Guy-Moyat .....	15,880	Sept. 18	44	1206
Sash chains. Window .....	Smith & Egge Manufacturing Company.	15,354	May 29	43	988
Sauce and mustard .....	M. Ams. ....	16,118	Dec. 25	45	1464
Sauce. Table .....	W. Halford .....	16,124	Dec. 25	45	1464
Sauce. Table .....	W. Halford .....	16,125	Dec. 25	45	1464
Sauces. Table .....	D. Warren .....	15,359	Apr. 10	43	120
Schnapps .....	J. B. Wolfo .....	15,939	Oct. 9	45	130
Screws, bolts, rivets, tacks, and similar metallic fastenings .....	Shelton Company .....	15,473	May 15	43	760
Seed. Annatto .....	A. S. Lacelles & Co. ....	15,711	July 24	44	346
Sewing-machines .....	Williams Manufacturing Company .....	15,114	Jan. 17	42	204
Shade fabrics .....	H. B. Wiggin's Sons .....	15,930	Oct. 2	45	2
Shade-rollers. Spring .....	S. Hartshorn .....	15,865	Sept. 11	44	1190
Shade-rollers. Spring .....	Saginaw Manufacturing Company .....	16,093	Dec. 11	45	1199
Shawl-straps .....	S. Scheuer & Son .....	15,858	Sept. 11	44	1190
Shingles. Cypress .....	Clark, Fairhead & Co. ....	15,523	May 29	43	988
Shingles. Cypress .....	Clark, Fairhead & Co. ....	15,524	May 29	43	988
Shirt-bosoms .....	J. Schloss .....	15,517	May 22	43	890
Shirt-bosoms .....	J. Schloss .....	15,518	May 22	43	890
Shirts .....	V. H. Rothschild & Co. ....	15,516	May 22	43	890
Shirts and drawers .....	Havens, Geddes & Co. ....	15,691	July 17	44	236
Shirts, coats, jackets, and overalls .....	Gallt & Branch .....	15,199	Feb. 21	42	723
Shirtings .....	Wamsutta Mills .....	15,874	Sept. 18	44	1206
Shirtings and sheetings .....	Wamsutta Mills .....	15,783	Aug. 14	44	702
Shoe-dressing. Liquid .....	R. F. S. Heath .....	15,430	May 8	43	636
Shoe-dressing. Liquid .....	R. F. S. Heath .....	15,653	July 3	44	2
Shoes .....	O. Finnigan & Son .....	16,086	Dec. 11	45	1196
Shoes for men. Heavy .....	Packard & Grover .....	15,818	Aug. 28	44	948
Shoes for men, misses, ladies, and children .....	C. Gotzian & Company .....	15,429	May 8	43	636
Shoes. Ladies' .....	J. Faust & Son .....	15,296	Mar. 20	42	1172
Silesia .....	Hyde & Burton .....	15,917	Oct. 2	45	2
Silesia .....	Hyde & Burton .....	15,918	Oct. 2	45	2
Silk dress-goods .....	Commission de Surveillance et de Contrôle de la Marque Municipale pour les Soieries Tissées à Lyon	16,109	Dec. 25	45	1464
Silk fabrics .....	R. B. MacLica & Co. ....	16,088	Dec. 11	45	1196
Silk piece-goods .....	Sharpless Brothers .....	15,977	Oct. 30	45	464
Silks, velvets, plushes, and other fabrics .....	J. Morgan .....	16,063	Dec. 4	45	1072
Silver. Useful or ornamental articles made of solid .....	Howard & Son .....	15,614	June 19	43	1352
Sirup for effervescing and other drinks. Flavoring .....	J. H. Barker & Co. ....	15,609	June 19	43	1352
Sirup. Fruit .....	H. M. Beecher .....	16,055	Dec. 4	45	1072
Sirups for coughs and colds .....	Marvelous Cough Syrup Company .....	15,595	June 12	43	1242
Skates .....	C. L. Poire .....	15,659	July 3	44	2
Skin diseases. Remedy for .....	J. and A. Giering .....	15,334	Apr. 3	43	2
Skin. Preparation for the .....	A. Rowland & Sons .....	15,095	Jan. 10	42	100
Skirts. Ladies' .....	L. Dryfoos & Co. ....	16,085	Dec. 11	45	1196
"Skyogen." Flexible material analogous to leather, called.	J. Hofmeier .....	16,043	Nov. 27	45	950
Slate. Pulverized .....	Highland Slate Manufacturing Company.	15,384	Apr. 24	43	394
Soap .....	Ammonia Soap and Chemical Company.	15,116	Jan. 24	42	300
Soap .....	Colgate & Co. ....	15,086	Jan. 10	42	100
Soap .....	J. C. Davis & Son .....	15,253	Mar. 6	42	966
Soap .....	A. Marsh .....	16,105	Dec. 18	45	1324
Soap .....	Mexican Amole Soap Company .....	15,775	Aug. 14	44	702
Soap .....	Mexican Amolia Soap Company .....	15,616	June 19	43	1352
Soap .....	Praetor & Gamble .....	15,755	Aug. 7	44	572

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Soap.....	Procter & Gamble.....	15,857	Sept. 11	44	1190
Soap. Barbers' shaving.....	T. A. Kochs.....	15,749	Aug. 7	44	572
Soap. Compound for soft.....	G. H. Magee.....	15,866	Sept. 11	44	1190
Soap. Family.....	N. K. Fairbank & Company.....	15,849	Sept. 11	44	1190
Soap for laundry and general purposes.....	Procter & Gamble.....	15,924	Oct. 2	45	2
Soap for laundry and general purposes. Hard.....	Columbia Manufacturing Company.....	15,325	May 29	43	988
Soap for laundry and toilet purposes.....	L. & J. Oakley.....	15,140	Jan. 31	42	386
Soap. Hard.....	Butler Brothers.....	15,483	May 22	43	890
Soap. Harness.....	J. Reardon & Sons.....	16,091	Dec. 11	45	1196
Soap in bars.....	J. M. Gwinnell.....	15,495	May 22	43	890
Soap in bars.....	H. Finn & Sons.....	15,729	July 31	44	452
Soap in bars.....	Rutherford & Barnes.....	15,756	Aug. 7	44	572
Soap in bars.....	Rutherford & Barnes.....	15,757	Aug. 7	44	572
Soap in bars. Brown.....	Procter & Gamble.....	15,779	Aug. 14	44	702
Soap. Laundry.....	J. S. Kirk & Co.....	15,257	Mar. 6	42	966
Soap. Laundry and toilet.....	J. S. Kirk & Co.....	15,709	July 24	44	346
Soap. Laundry and toilet.....	J. W. Popham & Co.....	15,903	Sept. 25	44	1404
Soap or compound of an abrasive character. Cleansing.....	Electron Manufacturing Company.....	15,792	Aug. 21	44	826
Soap. Paste.....	C. A. Breyer.....	15,984	Nov. 6	45	594
Soap. Polishing and scouring.....	Waters & Wrigley Manufacturing Company.....	15,759	Aug. 7	44	572
Soap-powder.....	J. R. Gentleman.....	15,162	Feb. 7	42	494
Soap-powders.....	Strassheim & Jaeger.....	15,621	June 19	43	1352
Soap. Toilet.....	Maine Balsam Fir Co.....	15,503	May 22	43	890
Soap. Toilet and household.....	J. S. Kirk & Co.....	15,710	July 24	44	346
Soap. Toilet and laundry.....	Beaver & Co.....	15,565	June 5	43	1120
Soap. Toilet, medicated, and commercial.....	R. H. McDonald Drug Company.....	15,543	May 29	43	988
Soaps.....	Mexican Amole Soap Company.....	15,776	Aug. 14	44	702
Soaps and perfumeries.....	F. R. Arnold & Co.....	15,072	Jan. 3	42	2
Soaps, cosmetics, hair-oils, and perfumes. Perfumed.....	W. S. Thomson.....	15,519	May 22	43	890
Soaps. Laundry.....	J. P. Davies.....	15,985	Nov. 6	45	594
Socks.....	Western Knitting Company.....	15,239	Feb. 28	42	832
Soporific preparation containing carbon, hydrogen, and oxygen.....	Farbenfabriken, vormals Fr. Bayer & Co.....	15,986	Nov. 6	45	594
Soporific. Preparation for use as a.....	Dr. J. G. Wannamaker Manufacturing Company.....	15,885	Sept. 18	44	1296
Spades, shovels, and agricultural implements.....	T. Drysdale & Co.....	15,383	Apr. 24	43	394
Spectacles and eyeglasses.....	E. S. Fowler.....	15,766	Aug. 14	44	702
Spectacles or eyeglasses.....	Ottumwa Optical Co.....	15,936	Oct. 9	45	130
Spices.....	W. F. Andrus.....	16,026	Nov. 27	45	950
Spool-cotton.....	A. King & Co.....	15,090	Jan. 10	42	100
Spoons, forks, ladles, &c.....	G. I. Mix & Co.....	15,440	May 8	43	636
Stains for mortars and cements.....	S. Bowen's Sons.....	15,482	May 22	43	890
Staples and goods united by such staples. Metallic.....	Acme Staple and Machine Company.....	15,346	Apr. 10	43	120
Staples and goods united by such staples. Metallic.....	Acme Staple and Machine Company.....	16,130	Dec. 25	45	1464
Starch, blue, and other laundry preparations.....	J. Ascoug.....	15,477	May 22	43	890
Starch for laundry and culinary purposes.....	T. Kingsford.....	15,078	Jan. 3	42	2
Starch. Laundry.....	Johnson & Jefferson.....	15,435	May 8	43	636
Starch. Laundry.....	Miller & King.....	16,123	Dec. 25	45	1464
Starch. Laundry.....	Sleeper Starch Company.....	15,978	Oct. 30	45	464
Steam-gages.....	Star Brass Manufacturing Company.....	15,099	Jan. 10	42	100
Stereotype-making machines.....	J. R. Rogers.....	15,959	Oct. 23	45	330
Stockings.....	W. Stärker.....	15,413	May 1	43	514
Stout.....	B. J. Semmes & Co.....	15,781	Aug. 14	44	702
Stove-boards. Embossed sheet-metal.....	A. I. Griggs.....	15,814	Aug. 28	44	948
Stoves. Gas.....	Gem City Stove Company.....	15,531	May 29	43	988
Stoves. Liquid polish for.....	I. H. Reddic.....	15,644	June 26	43	1460
Stoves. Oil.....	C. Riessner & Company.....	15,124	Jan. 24	42	300
Sulphate of quinine, sulphuric and salicylic acids, alcohol, and cochineal. Compound of.....	T. Blank.....	15,810	Aug. 28	44	948
Superphosphates or fertilizing materials.....	Crocker Fertilizer and Chemical Company.....	15,294	Mar. 20	42	1172
Suspenders.....	Swanton Suspender Company.....	15,377	Apr. 17	43	254
Table-ware, both hollow and flat. Metallic.....	Holmes & Edwards Silver Company.....	15,431	May 8	43	636
Table-ware, both hollow and flat. Metallic.....	Holmes & Edwards Silver Company.....	15,432	May 8	43	636
Table-ware constructed of silver or of other metals and then plated or tinned.....	G. I. Mix & Co.....	15,211	Feb. 21	42	728
Table-ware. Metal.....	Holmes & Edwards Silver Company.....	15,490	May 22	43	890
Table-ware. Metal.....	Holmes & Edwards Silver Company.....	15,898	Sept. 25	44	1404
Table-ware. Silver or silver-plated.....	W. H. Rogers.....	16,007	Nov. 13	45	714
Tacks. Carpet.....	J. H. Parks.....	16,090	Dec. 11	45	1196
Tea.....	H. W. Banks & Co.....	16,054	Dec. 4	45	1072
Tea.....	F. A. Cauchois.....	15,085	Jan. 10	42	100
Tea.....	J. Friess.....	15,794	Aug. 21	44	826
Tea.....	C. K. Hammitt & Co.....	15,120	Jan. 24	42	300
Tea.....	C. D. Lathrop & Co.....	15,179	Feb. 14	42	618
Tea.....	Merritt & Ronaldson.....	15,835	Sept. 4	44	1072
Tea.....	Mutual Benefit Tea Company.....	15,908	Sept. 25	44	1404
Tea.....	D. T. Stevens & Son.....	15,839	Sept. 4	44	1072
Tea and coffee.....	Jones Brothers.....	16,061	Dec. 4	45	1072
Tea and coffee in packages.....	Jones Brothers.....	15,932	Oct. 9	45	130
Tea. Japan and Oolong.....	Cobb, Wight & Co.....	15,458	May 15	43	760
Tea. Mixed.....	Enterprise Coffee Company.....	15,461	May 15	43	760
Teas. Black.....	Ridgway & Co.....	15,716	July 24	44	316
Teas from China.....	C. D. Lathrop & Co.....	15,324	Mar. 27	42	1294
Teas. Mixed.....	J. P. Boone.....	15,083	Jan. 10	42	100
Therapeutic preparation for outward application.....	G. & N. Poppin, Jr.....	16,006	Nov. 13	45	714
Thread. Gilling.....	Demarest & Joralemon.....	15,312	Mar. 27	42	1294
Thread. Linen.....	P. Vran & Co.....	15,882	Sept. 18	44	1296
Thread. Linen.....	P. Vran & Co.....	15,883	Sept. 18	44	1296
Throat and lung balsam, liver-pills, pain-plasters, and nervative.....	C. H. Haentze.....	15,957	Oct. 23	45	350
Tin andterne plates.....	Merchant & Co.....	15,207	Feb. 21	42	728
Tin plates.....	Merchant & Co.....	15,208	Feb. 21	42	728

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Tin plates and terne plates.....	Merchant & Co.....	15,504	May 22	43	890
Tobacco, cigars, and cigarettes. Manufactured.....	J. A. Patterson.....	15,472	May 15	43	760
Tobacco. Flue-cured smoking and chewing.....	B. F. Gravely & Sons.....	15,947	Oct. 16	45	238
Tobacco for chewing. Plug.....	J. H. Hargrave & Son.....	15,405	May 1	43	514
Tobacco. Long-cut smoking and chewing.....	W. Duke, Sons & Company.....	15,970	Oct. 30	45	464
Tobacco. Manufactured plug chewing.....	Bitting & Hay.....	15,160	Feb. 7	42	494
Tobacco, or tobacco in bulk. Plug or twist.....	Arnd & Bell.....	15,401	May 1	43	514
Tobacco. Plug.....	S. Reid Tobacco Company.....	15,142	Jan. 31	42	326
Tobacco. Plug or chewing.....	R. H. Herndon & Co.....	16,058	Dec. 4	45	1072
Tobacco. Plug, twist, and fancy.....	P. H. Hanes & Co.....	16,056	Dec. 4	45	1072
Tobacco. Smoking.....	Fawcett Durham Tobacco and Snuff Co.....	15,870	Sept. 18	44	1296
Tobacco. Smoking.....	Marburg Brothers.....	15,084	Jan. 10	42	100
Tobacco. Smoking and chewing.....	Fishburne Bros.....	15,403	May 1	43	514
Tobacco. Smoking and chewing.....	Fishburne Bros.....	15,428	May 8	43	636
Tobacco. Smoking and chewing.....	Gradle & Strotz.....	15,492	May 22	43	890
Tobacco. Smoking and chewing.....	Gradle & Strotz.....	15,831	Sept. 4	44	1072
Tobacco. Smoking and chewing.....	B. F. Weyman.....	16,070	Dec. 4	45	1072
Tobacco. Smoking, chewing, or plug.....	Kentucky R. R. Tobacco Company.....	15,832	Sept. 4	44	1072
Tobacco, smoking-tobacco, cigars, and snuff. Plug chewing.....	Bitting & Hay.....	15,566	June 5	43	1120
Toilet application for the skin.....	L. H. Gordon.....	15,491	May 22	43	890
Toilet articles or preparations. Certain.....	L. Sommer.....	15,734	July 31	44	452
Toilet cream.....	M. F. Fisk and F. H. Leavitt.....	15,850	Sept. 11	44	1190
Toilet powder.....	G. Lorenz.....	15,797	Aug. 21	44	826
Toilet-powders.....	A. N. Bourjois.....	15,973	Nov. 6	45	594
Toilet preparations.....	J. Ascoug.....	15,419	May 8	43	636
Toilet preparations and articles. Certain named.....	G. F. Lewis.....	15,712	July 24	44	346
Toilet preparations. Certain named.....	Hall & Ruckel.....	15,707	July 24	44	346
Toilet. Preparations for the.....	J. Ascoug.....	15,562	June 5	43	1120
Toilet-water sachet-powder.....	R. H. McDonald Drug Company.....	15,469	May 15	43	760
Tonic beverage.....	Phillip Best Brewing Company.....	15,213	Feb. 21	42	728
Tonic for women. Liquid.....	E. W. Austen.....	15,454	May 15	43	760
Tonic nutrient beverage.....	Phillip Best Brewing Company.....	15,354	Apr. 10	43	120
Tools and hammers. Edge, agricultural, and mining.....	A. W. Wills & Son.....	15,722	July 24	44	346
Tools and hammers. Edge, agricultural, and mining.....	A. W. Wills & Son.....	15,723	July 24	44	346
Tools. Edge.....	A. W. Wills & Son.....	15,625	June 19	43	1352
Tooth powder or preparation.....	Horsey Manufacturing Co.....	15,497	May 22	43	890
Towels. Ladies'.....	J. Hotherhall & Co.....	15,318	Mar. 27	42	1294
Toy musical instrument.....	A. Schoenhut & Co.....	15,216	Feb. 21	42	728
Tracing-cloth.....	A. Winterbottom & Sons.....	15,240	Feb. 28	42	832
Tracing-cloth.....	A. Winterbottom & Sons.....	15,241	Feb. 28	42	832
Tracing-cloth.....	A. Winterbottom & Sons.....	15,242	Feb. 28	42	832
Tracing-cloth.....	A. Winterbottom & Sons.....	15,243	Feb. 28	42	832
Transom-lifters.....	J. F. Wollensak.....	15,665	July 3	44	2
Transom-lifters.....	J. F. Wollensak.....	16,097	Dec. 11	45	1199
Trees. Peach.....	T. T. Lovett Company.....	16,045	Nov. 27	45	950
Trunks, bags, and valises.....	O. F. Sage.....	16,092	Dec. 11	45	1196
Twine. Cotton.....	A. J. Chace and S. L. Wood.....	16,033	Nov. 27	45	950
Twine for binding sheaves of grain, usually known as binder-twine.....	J. Lyall.....	15,933	Oct. 9	45	130
Type-writing machines.....	Standard Typewriter Manufacturing Company.....	15,357	Apr. 10	43	120
Type-writing machines.....	Standard Typewriter Manufacturing Company.....	15,375	Apr. 17	43	254
Type-writing machines.....	Standard Typewriter Manufacturing Company.....	15,376	Apr. 17	43	254
Type-writing machines.....	Standard Typewriter Manufacturing Company.....	15,960	Oct. 23	45	350
Type-writing machines.....	Standard Typewriter Manufacturing Company.....	15,961	Oct. 23	45	350
Type-writing machines.....	Standard Typewriter Manufacturing Company.....	15,962	Oct. 23	45	350
Type-writing machines. Ribbons for.....	J. Underwood & Co.....	16,108	Dec. 18	45	1324
Ultramarine.....	Deschamps Frères.....	15,402	May 1	43	514
Umbrella-frames and parts thereof.....	S. Fox & Company.....	15,826	Sept. 4	44	1072
Umbrella-frames and parts thereof.....	S. Fox & Company.....	15,827	Sept. 4	44	1072
Umbrellas.....	A. Hall & Co.....	15,690	July 17	44	236
Umbrellas.....	Siegel, Cooper & Co.....	15,966	Oct. 23	45	350
Under-clothing and outside suits for men and boys.....	B. W. Adler & Co.....	15,159	Feb. 7	42	494
Underwear.....	Jaros Hygienic Underwear Company.....	16,060	Dec. 4	45	1072
Underwear and hosiery.....	I. & R. Morley.....	15,922	Oct. 2	45	2
Underwear and hosiery for both sexes and for children.....	I. & R. Morley.....	15,875	Sept. 18	44	1296
Underwear and hosiery for both sexes and for children.....	I. & R. Morley.....	16,005	Nov. 13	45	714
Underwear. Cotton.....	A. Cohen.....	15,476	May 22	43	890
Underwear. Cotton.....	A. Zerban.....	15,415	May 1	43	514
Underwear. Woolen.....	A. Zerban.....	15,416	May 1	43	514
Valves, cocks, and similar devices. Valves and packing for.....	Jenkins Bros.....	15,321	Mar. 27	42	1294
Valves. Gate.....	Arthur Company.....	15,453	May 15	43	760
Valves. Rubber.....	Revere Rubber Company.....	15,214	Feb. 21	42	728
Varnishes. Flattening.....	L. Valentine Company.....	15,782	Aug. 14	44	702
Veneral diseases. Cure for and preventive of.....	Sackett & Neat.....	15,249	Feb. 28	42	832
Ventilators.....	J. H. Reynolds.....	15,411	May 1	43	514
Vinegar.....	Thal & Howe.....	15,047	June 26	43	1460
Wagons. Freight or farm.....	Turnbull Wagon Company.....	15,557	May 29	43	988
Wall-paper.....	G. K. Birge.....	15,052	Jan. 10	42	100
Walls, ceilings, &c. Embossed or stamped material for covering.....	T. J. Patner.....	16,114	Dec. 25	45	1464
Walls. Powder to be mixed with linseed-oil, &c., for coating.....	B. F. Ruth & Co.....	15,096	Jan. 10	42	100
Washing and cleaning fluid. Compound.....	M. D. Thompson.....	15,148	Jan. 31	42	326
Washing compound or mixture.....	American Soap and Washoline Company.....	15,667	Sept. 18	44	1296
Washing-machines.....	Recknagel & Co.....	15,643	June 26	43	1460
Washing-machines.....	C. E. Ross.....	15,236	Feb. 28	42	832
Washing-powder.....	Hodgson & Co.....	15,671	July 10	44	112



*Alphabetical list of trade-marks—Continued.*


Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Washing-powder. Granulated.....	Riverside Soap Company.....	15,394	Apr. 24	43	394
Watch-cases.....	Brooklyn Watch Case Company.....	15,290	Mar. 20	42	1172
Watch-cases.....	Brooklyn Watch Case Company.....	15,522	May 29	43	988
Watches.....	Elgin National Watch Company.....	15,425	May 8	43	636
Watches.....	Elgin National Watch Company.....	15,426	May 8	43	636
Watches.....	Elgin National Watch Company.....	15,427	May 6	43	636
Watches.....	Elgin National Watch Company.....	15,452	May 8	43	636
Watches.....	Non-Magnetic Watch Company.....	15,923	Oct. 2	45	2
Watches, clocks, jewelry, and silverware.....	S. F. Myers & Co.....	15,304	Mar. 20	42	1172
Water. Apparatus for collecting, filtering, and storing.....	R. C. Sayer.....	15,396	Apr. 24	43	394
Whetstones.....	A. F. Pike Manufacturing Company.....	15,127	Jan. 24	42	360
Whips.....	S. Baker.....	15,941	Oct. 16	45	238
Whisky.....	Aurora Distilling Company.....	15,608	June 19	43	1352
Whisky.....	Belmont Distillery Company.....	16,119	Dec. 25	45	1464
Whisky.....	Blake, Bruce & Co.....	15,567	June 5	43	1120
Whisky.....	Blake, Bruce & Co.....	15,788	Aug. 21	44	826
Whisky.....	H. Corby.....	15,611	June 19	43	1352
Whisky.....	G. G. Cornwell & Son.....	16,013	Nov. 20	45	838
Whisky.....	J. E. Davis.....	15,526	May 29	43	988
Whisky.....	Dublin Whisky Distillery Company.....	15,229	Feb. 28	42	832
Whisky.....	G. & J. G. Smith.....	15,397	Apr. 24	43	394
Whisky.....	F. J. Kiesel & Company.....	16,122	Dec. 25	45	1464
Whisky.....	J. H. Magruder.....	15,751	Aug. 7	44	572
Whisky.....	Redmond Brothers.....	16,115	Dec. 25	45	1464
Whisky.....	M. Shaughnessy & Co.....	15,662	July 3	44	2
Whisky.....	E. Taniere & Co.....	15,130	Jan. 24	42	300
Whisky. Rye.....	Martin & M. Andrews.....	15,773	Aug. 14	44	702
Wine. Champagne.....	G. H. Mummi & Co.....	15,696	June 12	43	1242
Wine. Champagne.....	Veuve Pommery Fils & Co.....	15,581	June 5	43	1120
Wine. Champagne.....	Veuve Pommery Fils & Co.....	15,582	June 5	43	1120
Wine. Champagne.....	Veuve Pommery Fils & Co.....	15,605	June 12	43	1242
Wine. Champagne.....	Veuve Pommery Fils & Co.....	15,606	June 12	43	1242
Wine. Champagne.....	Veuve Pommery Fils & Co.....	15,607	June 12	43	1242
Wines.....	A. Kreiser.....	15,352	Apr. 10	43	120
Wines. Champagne and other.....	H. Abelé.....	15,173	Feb. 14	42	618
Wines. Sparkling.....	Hoehl Gebrüder.....	15,177	Feb. 14	42	618
Wines, whiskies, brandies, and bitters.....	Meade-Van Bokkelen Company.....	15,975	Oct. 30	45	464
Wines, whiskies, brandies, and other distilled spirits.....	Fischer & Heinrichs.....	15,197	Feb. 21	42	728
Wire netting and fencing, wire-cloth, and wire lathing. Galvanized.....	New Jersey Wire Cloth Company.....	16,049	Nov. 27	45	950
Wire rope.....	A. Leschens & Sons Rope Company.....	15,899	Sept. 25	44	1404
Wood. Preparation for preserving.....	Southern Company of New York.....	16,052	Nov. 27	45	950
Wood pulp. Household articles made of.....	Amoskeag Indurated Fibre Ware Company.....	15,910	Oct. 2	45	2
Wood-wool and wood-wool wadding.....	P. Hartmann.....	15,256	Mar. 6	42	966
Wool. Zephyr-finish Germantown.....	I. D. Allen & Co.....	15,808	Aug. 28	44	948
Woolen and cotton fabrics for linings and outer clothing.....	T. Illingworth.....	15,534	May 29	43	988
Woolen wearing-apparel. Certain.....	R. Slazenger.....	15,113	Jan. 17	42	204
Woolens, jeans, and like goods.....	Old Kentucky Woolen Mills Company.....	15,804	Aug. 21	44	826
Worsted and mixed worsted goods. Bolted.....	G. M. B. Mudge.....	16,047	Nov. 27	45	950
Worsted and woolen goods for wearing-apparel.....	J. W. and A. T. Clay.....	16,036	Nov. 27	45	950
Writing and copying fluids and inks.....	C. E. Ogden.....	15,283	Mar. 13	42	1066
Yarns. Worsted and woolen.....	A. J. Cameron & Co.....	15,228	Feb. 28	42	832
Yarns. Worsted and woolen.....	Nonantum Worsted Company.....	15,340	Apr. 3	43	2
Yarns. Worsted, woolen, and silk.....	Nonantum Worsted Company.....	15,508	May 22	43	890
Yarns. Worsted, woolen, silk, and cotton.....	Nonantum Worsted Company.....	15,507	May 22	43	890
Yeast.....	H. H. Warner.....	15,345	Apr. 3	43	2
Yeast-powder.....	Sherman Bros. & Co.....	16,129	Dec. 25	45	1464



# ALPHABETICAL LIST OF LABELS.

Title.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
"Absolutely Pure Canada Sap Maple Syrup".....	S. Bliss .....	5,665	July 31	44	452
"Alexr. King & Co. Machine Sewing Spool Cotton"	A. King & Co. ....	5,471	Jan. 17	42	204
"Alexr. King & Co. Machine Sewing Spool Cotton"	A. King & Co. ....	5,472	Jan. 17	42	204
"American Furniture Polish"	T. W. Brennan .....	5,644	July 3	44	2
"Anti-Friction Grease"	E. H. Kellogg & Co. ....	5,771	Dec. 11	45	1196
"Anti-Friction Oil"	E. H. Kellogg & Co. ....	5,769	Dec. 11	45	1196
"Anti-Rust Oil"	E. H. Kellogg & Co. ....	5,770	Dec. 11	45	1196
"Antiseptic Pastilles"	F. Brown .....	5,761	Dec. 11	45	1196
"Arnold's Chemical Blue Black Copying Fluid"	C. E. Ogden .....	5,534	Mar. 27	42	1294
"Arnold's Chemical Writing Fluid"	C. E. Ogden .....	5,532	Mar. 27	42	1294
"Arnold's Office & Steel Pen Writing Ink"	C. E. Ogden .....	5,479	Jan. 31	42	386
"Arnold's Scarlet Writing Ink"	C. E. Ogden .....	5,535	Mar. 27	42	1294
"Art Flowers." (For Artificial Flowers)	A. W. Maas .....	5,613	May 29	43	988
"Asthma Specific"	T. Popham & Co. ....	5,721	Oct. 23	45	350
"Atchison Cornice Works." (For Metal Cornices, &c.)	J. W. McKelvey .....	5,614	May 29	43	988
"Baby Cough Syrup"	Milburn & Williamson .....	5,562	May 1	43	514
"Bailey's Rubber Toilet Brush"	C. J. Bailey & Co. ....	5,557	Apr. 17	43	254
"Baltimore Brand Crab-Meat"	M. V. Smith .....	5,590	May 8	43	636
"Belt Stud." (For Studs for Leather and Rubber Belts)	Greene, Tweed & Co. ....	5,492	Feb. 21	42	728
"Bennett's Healing Dust for Horses"	R. R. Bennett .....	5,565	Apr. 24	43	394
"Black Neats Foot Oil" (For Harness Oil)	J. T. Brennan .....	5,774	Dec. 25	45	1464
"Blackberry and Peppermint Cordial"	J. Jacobs .....	5,636	June 26	43	1460
"Blume's Tokayer Grape and Fruit Wine"	W. M. Blume .....	5,592	May 15	43	760
"Blume's Tokayer Grape and Fruit Wine"	W. M. Blume .....	5,593	May 15	43	760
"Bonham's Calendula Oil Compound"	J. C. Bonham .....	5,572	May 1	43	514
"Boston Oat Meal" (For Soap)	J. S. Kirk & Co. ....	5,518	Mar. 13	42	1066
"Brann's Tar and Jamaica Rum Compound"	S. Brann .....	5,743	Nov. 27	45	950
"Brilliant Coffee." (For Roasted Coffee)	Yehling & Coenen .....	5,563	Apr. 17	43	254
"Buck's Method of Packing Granular Material"	F. R. Buck .....	5,775	Dec. 25	45	1464
"California Grape Juice"	H. Bishop .....	5,707	Sept. 25	44	1404
"Cambria." (For Laundry Soap)	J. S. Kirk & Co. ....	5,521	Mar. 13	42	1066
"Carbolic-Camphor." (For Laundry Soap)	J. S. Kirk & Co. ....	5,514	Mar. 13	42	1066
"Carey's German Dyspepsia Remedy"	J. Carey .....	5,601	May 22	43	890
"Carson's Celebrated Remedy for Purifying the Blood"	W. K. Vandergrift .....	5,598	May 15	43	760
"Carter's Fancy." (For Flour)	J. C. Carter .....	5,680	Aug. 21	44	826
"Celery Phosphate" (for a Sirup for Soda Fountains)	Sedgwick & Smith .....	5,779	Dec. 25	45	1464
"Ceratum Labiale"	F. F. Franceschini .....	5,727	Nov. 6	45	594
"Ceres." (For Laundry Soap)	J. S. Kirk & Co. ....	5,522	Mar. 13	42	1066
"Chalybeate Saline"	W. R. Warner .....	5,562	Apr. 17	43	254
"Choctham's Cream Balsam." (For a Medicine.)	A. B. Richards and M. V. Cheatham .....	5,632	June 12	43	1242
"Chinese Corn Salve"	G. L. Mansfield .....	5,580	May 1	43	514
"Clifford's Punched Feather and Flower Tag"	J. B. Clifford .....	5,717	Oct. 16	45	238
"Closson's Celebrated Pain Relief." (For a Medicine)	W. E. Closson .....	5,666	July 31	44	452
"Closson's German Dyspepsia Panacea"	W. E. Closson .....	5,635	June 26	43	1460
"Clover Blossom Compound" (For a Blood Purifying Medicine.)	W. H. Solleck .....	5,642	June 26	43	1460
"Coca Tobacco and Cigarettes"	G. Schwenzner .....	5,648	July 10	44	112
"Cole's Rheumatic Pain Annihilator"	C. F. Kittredge .....	5,612	May 29	43	988
"Colorado Sticky Fly Paper"	J. T. Billings .....	5,664	July 31	44	452
"Comfort Corn Plaster"	National Plaster Company .....	5,710	Sept. 25	44	1404
"Commonwealth." (For Toilet Soap)	J. S. Kirk & Co. ....	5,508	Mar. 6	42	966
"Compound Extract of Ginger with Camomile"	H. S. Bagnall .....	5,643	July 3	44	2
"Corn Starch Substitute Wood Filler"	S. Bowen's Sons .....	5,558	Apr. 17	43	254
"Cranberry Horse Shoes"	B. L. Dulaney .....	5,530	Mar. 27	42	1294
"Crompton Velvetene"	Crompton Company .....	5,453	Jan. 3	42	2
"Crown Lavender Salts"	W. S. Thomson .....	5,742	Nov. 20	45	838
"Crystola." (For Soap.)	J. S. Kirk & Co. ....	5,660	July 24	44	346
"D. H. Jones' Anti-Bilious Cathartic Pills"	D. H. Jones .....	5,483	Feb. 7	42	494
"Davies' Balm of Gilead or Pectoral Balsam"	E. G. Davies .....	5,627	June 12	43	1242
"Day's Specific"	W. L. Day .....	5,475	Jan. 24	42	300
"Delaware White Lead"	Davidson & Knowles Company .....	5,698	Sept. 25	44	1404
"Dentifrice Odorata"	D. Genese .....	5,628	June 12	43	1242
"Denver Benzoin Lotion." (For a Toilet Preparation)	O. Laue .....	5,746	Nov. 27	45	950
"Des Moines Mixed Paint"	Hurlbut, Ward & Co. ....	5,724	Oct. 30	45	464
"Diffusible Tonic"	Diffusible Tonic Company .....	5,603	May 22	43	890
"Directions for Use." (For Stove Polish)	C. A. Shaw .....	5,465	Jan. 10	42	100
"Dole's Perfect Horse & Cattle Invigorator"	W. H. Dole .....	5,653	July 17	44	236
"Dr. Button's Coffee"	J. H. Myers .....	5,640	June 26	43	1460
"Dr. C. N. Campbell's Cough Cure"	Wilkinson, Roberts & Co. ....	5,739	Nov. 13	45	714
"Dr. E. R. Jebbs Permanent Pile Cure"	J. D. Strachan .....	5,722	Oct. 23	45	350
"Dr. H. M. Betts' Liver Capsules"	H. M. Betts .....	5,626	June 12	43	1242
"Dr. Hall's Sanitary Knitting Yarn"	Nonantum Worsted Company .....	5,545	Apr. 10	43	120
"Dr. Hartshorne's Harmless Bowel Corrector for Offensive Diarrhoea."	G. W. H. Calver .....	5,600	May 22	43	890
"Dr. Heintze's Sarsaparilla"	F. Horlacher .....	5,765	Dec. 11	45	1196
"Dr. Henley's Dandelion Tonic"	Snell, Heitsch & Woodard .....	5,553	Apr. 10	43	120
"Dr. Hoffmann's Swedish Herbal Elixir"	E. J. Liebetrut .....	5,655	July 17	44	236
"Dr. J. H. Barber's Liniment"	J. E. Barber .....	5,652	July 17	44	236
"Dr. Martin's Health Restorer and Blood Purifier"	H. J. Martin .....	5,639	June 26	43	1460

*Alphabetical list of labels—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
"Dr. McAllister's Compound Spirits of Juniper and Extract of Buchu, A Sure and Positive Cure for all Kidney and Genito-Urinary Diseases."	J. McAllister .....	5,462	Jan. 10	42	100
"Dr. Partridge's Ointment"	A. P. Partridge & Co .....	5,704	Sept. 25	44	1404
"Dr. Partridge's Pain Queller." (For a Medicine).	A. P. Partridge & Co .....	5,623	June 5	43	1120
"Dr. Philip Thorpe's Compounded Fruit Juices, A Delicious Morning Laxative."	P. Thorpe.....	5,738	Nov. 13	45	714
"Dr. Price's Black Liniment"	R. C. Price.....	5,550	Apr. 10	43	120
"Dr. Price's Heart Regulator." (For a Medicine)	R. C. Price.....	5,548	Apr. 10	43	120
"Dr. Price's Red Liniment"	R. C. Price.....	5,549	Apr. 10	43	120
"Dr. Price's Stomachic Powders"	R. C. Price.....	5,547	Apr. 10	43	120
"Dr. R. W. Whittington's Blood and Liver Pills"	R. W. Whittington .....	5,663	July 24	44	346
"Dr. Roy's White Injection of Milk-Weed"	Roy Drug Co .....	5,502	Feb. 28	42	892
"Dr. S. E. Morgau's Inhaler and Universal Cure for Catarrh, Asthma, Sore Throat, Neuralgia in the Head."	S. E. Morgan .....	5,736	Nov. 13	45	714
"Dr. T. Erskine Todd's Stimulating Bouquets"	T. E. Todd.....	5,669	July 31	44	452
"Dr. White's Pulmonic Balsam"	A. Paradis.....	5,493	Feb. 21	42	728
"Dr. White's Pulmonic Balsam"	A. Paradis.....	5,494	Feb. 21	42	728
"Dr. White's Sarsaparilla"	A. Paradis.....	5,487	Feb. 14	42	618
"Dr. White's Sarsaparilla"	A. Paradis.....	5,488	Feb. 14	42	618
"Dutard's Specific." (For a Remedy for Skin Diseases)	Snell, Heitsch & Woodard .....	5,539	Apr. 3	43	2
"Dyspepsia Remedy"	W. W. Fithian .....	5,566	Apr. 24	43	394
"El Modelo Cigar Man'g Comp"	El Modelo Cigar Manufacturing Co .....	5,619	June 5	43	1120
"El Modelo Cigar Man'g Company"	El Modelo Cigar Manufacturing Co .....	5,618	June 5	43	1120
"Electro Chemical." (For Ink)	T. Davids Company .....	5,681	Aug. 21	44	826
"Eli Liver Pills"	D. R. Fly & Co .....	5,690	Sept. 11	44	1190
"Elixir of Peptonate of Iron"	Rothschild Bros. & Co .....	5,705	Sept. 25	44	1404
"Estberg's Headache Capsules"	Estberg & Lonstorf .....	5,689	Sept. 11	44	1 90
"Extra Black Bird Gin"	J. de Fremery & Co .....	5,559	Apr. 17	43	251
"F. E. Johnson's Anodyne Liniment"	F. E. Johnson .....	5,678	Aug. 14	44	702
"F. S. Peacock's Aromatic Extract of Blackberry and Ginger"	W. C. Peacock .....	5,560	Apr. 17	43	251
"Farmer's Coal"	J. H. Leonard & Co .....	5,772	Dec. 11	45	1196
"Fire Extinguisher"	G. Corbion, Jr .....	5,480	Feb. 7	42	494
"Floraplexion, A Positive Cure for Dyspepsia, Liver Complaint, and Consumption."	J. L. Connelly .....	5,697	Sept. 25	44	1404
"Florida Syrup of Tamarinds and Prunes"	H. J. Heister.....	5,542	Apr. 10	43	120
"Fly-paper"	H. S. Winship .....	5,608	May 22	43	890
"Forged Steel." (For Curry-Combs)	W. P. Kellogg .....	5,768	Dec. 11	45	1196
"Fragrant Cologne"	J. Jacobs .....	5,638	June 26	43	1460
"Frank's German Elderberry Balsam"	L. Frank .....	5,720	Oct. 23	45	350
"Fresh Cold Drops." (For a Medical Compound)	W. M. L. Fiske .....	5,511	Mar. 13	42	1066
"Fruit Phosphates." (For a Syrup)	Hance Brothers & White .....	5,605	May 22	43	890
"G. L. McGreevy's Compound Tonic"	G. L. McGreevy .....	5,606	May 22	43	890
"Genuine Perfect Fitting Chilled Edge Share." (For Plows)	Gibbs & Ball Plow Company.....	5,620	June 5	43	1120
"Germ Exterminating Medicine"	A. H. and C. Tiers and H. H. McAllister.....	5,490	Feb. 14	42	618
"German Cocoa Powder"	Hawley & Hoops .....	5,611	May 29	43	988
"German Cocoa Powder"	Hawley & Hoops .....	5,622	June 5	43	1120
"German Electro-Medicated Battery or Electrified and Medicated Inhaler."	M. S. Greco.....	5,740	Nov. 20	45	838
"German Knitting Worsted"	A. J. Cameron & Co .....	5,499	Feb. 28	42	832
"German Knitting Worsted"	A. J. Cameron & Co .....	5,500	Feb. 28	42	832
"German Knitting Worsted"	A. J. Cameron & Co .....	5,501	Feb. 28	42	832
"German Tonic and Nerve Pills and Pastilles"	M. S. Greene .....	5,729	Nov. 6	45	594
"German Vegetable Laxative Pills"	M. S. Greene.....	5,728	Nov. 6	45	594
"German Vermilion." (For Paint).	O. Wigand .....	5,695	Sept. 11	44	1190
"Ginger Wine and Pepsin," (For a Medicinal Preparation)	C. Cook, E. S. Everett, and H. B. Pennell.....	5,677	Aug. 14	44	702
"Glycerine Bay Rum"	S. M. Binder .....	5,571	May 1	43	514
"Goff's Box-Plaited Braid"	D. Goff & Sons .....	5,470	Jan. 17	42	204
"Gold Dust." (For Washing Powder)	N. K. Fairbank & Company .....	5,481	Feb. 7	42	494
"Gold Medal Whiskey"	F. J. Kiesel & Co .....	5,734	Nov. 13	45	714
"Golden Ridge Apple Wine"	B. Atwater .....	5,625	June 12	43	1242
"Golden Seal and Sandal Wood Combination." (For a Medicine.)	Milburn & Williamson.....	5,581	May 1	43	514
"Golden-Steel Gauge Pins." (For Printers' Feed Gages)	E. L. McGill .....	5,531	Mar. 27	42	1294
"Hepatic Extract." (For a Medicinal Preparation)	Hunt Kiddie Company.....	5,512	Mar. 13	42	1066
"Hiller's Hydrastine Restorative"	F. Hiller, Jr .....	5,454	Jan. 3	42	2
"Hinton's Hygienic Pulmonary Preserver," (For a Remedy for Coughs, &c.)	H. Douglas .....	5,466	Feb. 14	42	618
"Horton's Popular Price Liver Pills"	E. F. Horton .....	5,730	Nov. 6	45	594
"Hot Springs Blood Purifier." (For a Medicine)	A. J. Seguin .....	5,657	July 17	44	236
"Hunt's Cure for Skin Diseases and Eruptions"	A. B. Richards and M. V. Cheatham.....	5,631	June 12	43	1242
"Ideal Felt Tooth Polisher"	Horsey Manufacturing Co .....	5,699	Sept. 25	44	1404
"Improved Liquid Glue"	Le Page Glue and Cement Company.....	5,679	Aug. 14	44	702
"Improved Stencils"	J. Trischka .....	5,561	Apr. 17	43	254
"Indelible." (For a Chemical to be Mingled with Oil Paint)	P. Blackman .....	5,670	Aug. 7	44	572
"Indestructible School Shoe"	S. Norwood & Co .....	5,687	Sept. 4	44	1072
"Indurated Fibre." (For Ware Made of Indurated Wood Fibre)	Union Indurated Fibre Company .....	5,496	Feb. 21	42	728
"Japanese Brand." (For Sheathing Paper)	M. E. Manahan .....	5,750	Nov. 27	45	950
"Jewelry Wash"	A. W. Isaacs .....	5,435	Jan. 3	42	2
"Joy's Vegetable (The California Remedy) Sarsaparilla"	E. W. Joy Company .....	5,725	Oct. 30	45	464
"Kangaroo." (For Paper Bags)	Union Bag and Paper Company.....	5,616	May 29	43	988
"Kaskine." (For Proprietary Medicine)	Kaskine Company .....	5,461	Jan. 10	42	100
"Kickapoo Cough Cure"	Healy & Bigelow .....	5,478	Jan. 31	42	386
"Kickapoo Springs Mineral Water"	C. H. Schmidt and W. B. Starbird.....	5,570	Apr. 24	43	394
"King's Purely Vegetable Cough Medicine."	S. H. King .....	5,537	Apr. 3	43	2
"Kleinert's Celebrated Indestructible." (For Dress Shields)	I. B. Kleinert .....	5,5-9	May 8	43	636
"  (Kosher)." (For Soap)	L. Goldenberg & Co .....	5,709	Sept. 25	44	1404
"La Bonta's French Shampoo Cream"	R. R. Westcott .....	5,633	June 12	43	1242
"La Sogna." (For Cigars and Cigarettes)	H. R. Kelly & Co .....	5,594	May 15	43	760
"Labels for Lenses"	Johnson Optical Co .....	5,766	Dec. 11	45	1196
"Lactic Acid"	Nelson Chemical Company.....	5,756	Nov. 27	45	950
"Lavender Cream." (For the Toilet)	J. A. Beebe .....	5,564	Apr. 24	43	394

*Alphabetical list of labels—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
"Le Page's Improved Process Family Glue. It sticks everything, Ornaments, Leather Glass, Marble, etc."	Le Page Glue and Cement Company.	5,701	Sept. 25	44	1404
"Le Page's Improved Process Family Glue Mfd by the Le Page Glue & Cement Co."	Le Page Glue and Cement Company.	5,703	Sept. 25	44	1404
"Le Suro's Spavin Cure"	J. G. Le Suro & Co.	5,543	Apr. 10	43	130
"Lemon and Orange Elixir"	Pemberton Medicine Co.	5,516	Apr. 10	43	130
"Lemon Honey," (For a Pulmonary Remedy).	J. F. Seaman.	5,551	Apr. 10	43	130
"Leroy's Mexican Egg Shampoo Cream"	Smith Brothers.	5,503	Feb. 28	42	832
"Lessor Gardner Liniment"	L. Gardner.	5,764	Dec. 11	45	1196
"Lincoln's Kino Balm," (For a Medicine.)	W. H. Haigh.	5,659	July 24	44	546
"Lion," (For Paper Bags).	Union Bag and Paper Company.	5,617	May 29	43	988
"Locker's Renowned Rheumatic Remedy"	C. A. Locker.	5,579	May 1	43	511
"Lock Clasp," (For Corsets)	Worcester Corset Co.	5,460	Jan. 3	42	2
"Lotion"	M. H. Taintor.	5,714	Oct. 2	45	2
"Luncheon Beef"	Armour Packing Co.	5,733	Nov. 13	45	714
"Lutz's Advertising Cards," (For Playing Cards).	J. G. Lutz.	5,673	Aug. 7	44	572
"Machine Copying Ink"	C. E. Ogden.	5,533	Mar. 27	42	1294
"Maddin's Mosquito Mixture"	T. M. Maddin.	5,529	Mar. 20	42	1172
"Malone Pants"	Whitlsey & Company.	5,682	Aug. 21	44	826
"Malt Mead," (For a Beverage).	Phillip Best Brewing Company.	5,675	Aug. 14	44	702
"Malt Mead," (For a Beverage).	Phillip Best Brewing Company.	5,676	Aug. 14	44	702
"Manahan's Air-Tight Japanese Parchment Sheathing"	M. E. Manahan.	5,751	Nov. 27	45	950
"Manahan's Air-Tight Sanitary Parchment Sheathing"	M. E. Manahan.	5,674	Aug. 7	44	572
"Manahan's Black Walnut Brand," (For Sheathing Paper).	M. E. Manahan.	5,752	Nov. 27	45	950
"Manahan's Cherry Wood Brand," (For Sheathing Paper).	M. E. Manahan.	5,747	Nov. 27	45	950
"Manahan's Chinese Parchment Sheathing"	M. E. Manahan.	5,748	Nov. 27	45	950
"Manahan's Glycerine-Tar Health Paper," (For Toilet Paper.)	M. E. Manahan.	5,685	Sept. 4	44	1072
"Manganese and Iron," (For a Medical Preparation).	A. Day.	5,602	May 22	43	890
"Manitou Natural Mineral Table Water"	Manitou Mineral Water Company.	5,544	Apr. 10	43	130
"Marcher's Effervescent Tablets"	G. B. Marcher.	5,686	Sept. 4	44	1072
"Marvelous," (For Cough Syrups).	Marvelous Cough Syrup Co.	5,773	Dec. 18	45	1324
"Marvelous Cough Syrup"	Marvelous Cough Syrup Company.	5,630	June 12	43	1242
"Mascaro Tonic for the Hair"	M. M. Harper.	5,621	June 5	43	1130
"Medical Absorbing and Healing Powder"	T. R. Burgtorf.	5,712	Oct. 2	45	2
"Morwin's Old Reliable Remedy"	P. J. Merwin.	5,777	Dec. 25	45	1464
"Mexican Cereus Pollen"	F. S. Newby and G. E. Rockwell.	5,484	Feb. 7	42	494
"Microbe Destroyer"	J. J. Tobin.	5,474	Jan. 17	42	204
"Moore's Balsam," (For a Remedy for Colds).	C. Moore.	5,732	Nov. 6	45	594
"Mrs. C. Dorman's Ointment"	C. Dorman.	5,587	May 8	43	636
"Mrs. Hunting's Baby Cordial"	E. C. Marshall.	5,456	Jan. 3	42	2
"Mrs. M. A. Kerr's Cough Syrup"	M. A. Kerr.	5,567	Apr. 24	43	394
"Mrs. Sutherland's Salve"	C. V. Sutherland.	5,713	Oct. 2	45	2
"Mrs. Thompson's Washing and Cleaning Compound"	M. D. Thompson.	5,489	Feb. 14	42	618
"Musk Toilet Soap"	J. S. Kirk & Co.	5,519	Mar. 13	42	1066
"Nail Guide Lines," (For Sheathing Paper)	M. E. Manahan.	5,749	Nov. 27	45	950
"National Democratic Badge 1888 Presidential Campaign"	Reynolds Jewelry Co.	5,641	June 26	43	1460
"National Horse, Cattle, Poultry and Swine Food"	National Food Company.	5,715	Oct. 9	45	130
"National Republican Badge 1888 Presidential Campaign"	Reynolds Jewelry Co.	5,668	July 31	44	452
"Nelson's Acid Lactate"	Nelson Chemical Company.	5,753	Nov. 27	45	950
"Nelson's Acid Lactate"	Nelson Chemical Company.	5,754	Nov. 27	45	950
"Nelson's Acid Lactate"	Nelson Chemical Company.	5,755	Nov. 27	45	950
"New Discovery for Rheumatism"	J. A. Whittington.	5,624	June 5	43	1120
"No Nails in this Shoe to Hurt the Feet, Soles Attached by Process of Boot and Shoe Sole Laying Co. Boston."	Boot and Shoe Sole Laying Company.	5,477	Jan. 31	42	386
"Norwegian Pile Cure."	W. E. Dement.	5,536	Apr. 3	43	2
"Note to Pharmacists and Special Note to Physicians," (For Mixture of Guaiac, Stillingia, &c.)	W. H. Griffith.	5,629	June 12	43	1212
"Novelty Glove Fitting Jersey"	G. Schwab & Bros.	5,457	Jan. 3	42	2
"Oliphant's American Liver Pills"	L. Oliphant.	5,741	Nov. 20	45	838
"Orange Phosphate"	Wolff-Wilson Drug Company.	5,650	July 10	44	112
"Our School Shoe"	Chase, Merritt & Co.	5,523	Mar. 13	42	1066
"Our School Shoe"	Chase, Merritt & Co.	5,524	Mar. 13	42	1066
"Our Western Choice" (for Whisky)	F. J. Kiesel & Co.	5,735	Nov. 13	45	714
"Pateboul Toilet Soap"	J. S. Kirk & Co.	5,516	Mar. 13	42	1066
"Pâté Foie Gras"	Cunningham & De Fourier Company.	5,763	Dec. 11	45	1196
"Patton's Chill Tonic Syrup"	E. G. and T. Patton.	5,525	Mar. 13	42	1066
"Peptic," (For a remedy for Indigestion)	Standard Medicine Company.	5,504	Feb. 28	42	832
"Philadelphia Extra Weight & Color," (For Gingham, Tickings, and other Cotton Goods.)	J. Farrium & Co.	5,645	July 3	44	2
"Pimlico Toilet Soap"	J. S. Kirk & Co.	5,517	Mar. 13	42	1066
"Planet," (For Laundry Soap)	J. S. Kirk & Co.	5,520	Mar. 13	42	1066
"Platt's Cold in the Head Cure"	C. C. Platt.	5,757	Nov. 27	45	950
"Points of Rubbing Varnish"	Lawson Valentine Company.	5,568	Apr. 24	43	394
"Pomeroy's Celery Candy for the Brain, Nerves and Breath"	H. R. Pomeroy.	5,758	Nov. 27	45	950
"Power's Asthma Specific"	E. C. Powers.	5,711	Sept. 25	44	1404
"Premium Stock Lager"	Haberle Brewing Company.	5,462	Feb. 7	42	494
"Puchta's Instantaneous Flash-Light-Tablets"	C. Puchta.	5,656	July 17	44	236
"Quarter Hour Headache Cure"	H. Wise & Co.	5,759	Nov. 27	45	950
"Rano's Dandelion Liver Pills"	F. Seisser and C. O. Rano.	5,634	June 19	43	1352
"Ready," (For Fuel Blocks and Fire Kindlers)	W. R. Myers.	5,667	July 31	44	452
"Ready Glue"	S. M. Bixby.	5,609	May 29	43	988
"Rev. J. M. Coley's Regulator," (For a Medical Compound)	G. M. French.	5,671	Aug. 7	44	572
"Rheumatic Cure"	L. J., and F. I. Abbott.	5,591	May 15	43	760
"Rochester Gas Burner"	C. S. Upton.	5,649	July 10	44	112
"Rogers' Inhalant an Inhaling Preparation"	M. J. Rogers & Co.	5,662	July 24	44	346
"Roman Cement"	L. Crowther.	5,544	May 8	43	636
"Root-Tea-Na," (For a Vegetable Medical Compound).	G. W. Wright.	5,651	July 10	44	112
"Rudolph's Phosphorized Elixir of Oats"	Hegeman & Company.	5,541	Apr. 10	43	120
"Russell's Natural Remedy," (For a Medicine for Diseases of the Liver, &c.)	P. J. Russell.	5,526	Mar. 13	42	1066
"Russian Oil Stove Blacking"	C. A. Shaw.	5,464	Jan. 10	42	100
"Sanns' Rheumatic Specific"	P. A. Sanns & Son.	5,607	May 22	43	890
"Sarsaparilla Chewing Gum"	Green & Blackwell.	5,708	Sept. 25	44	1404

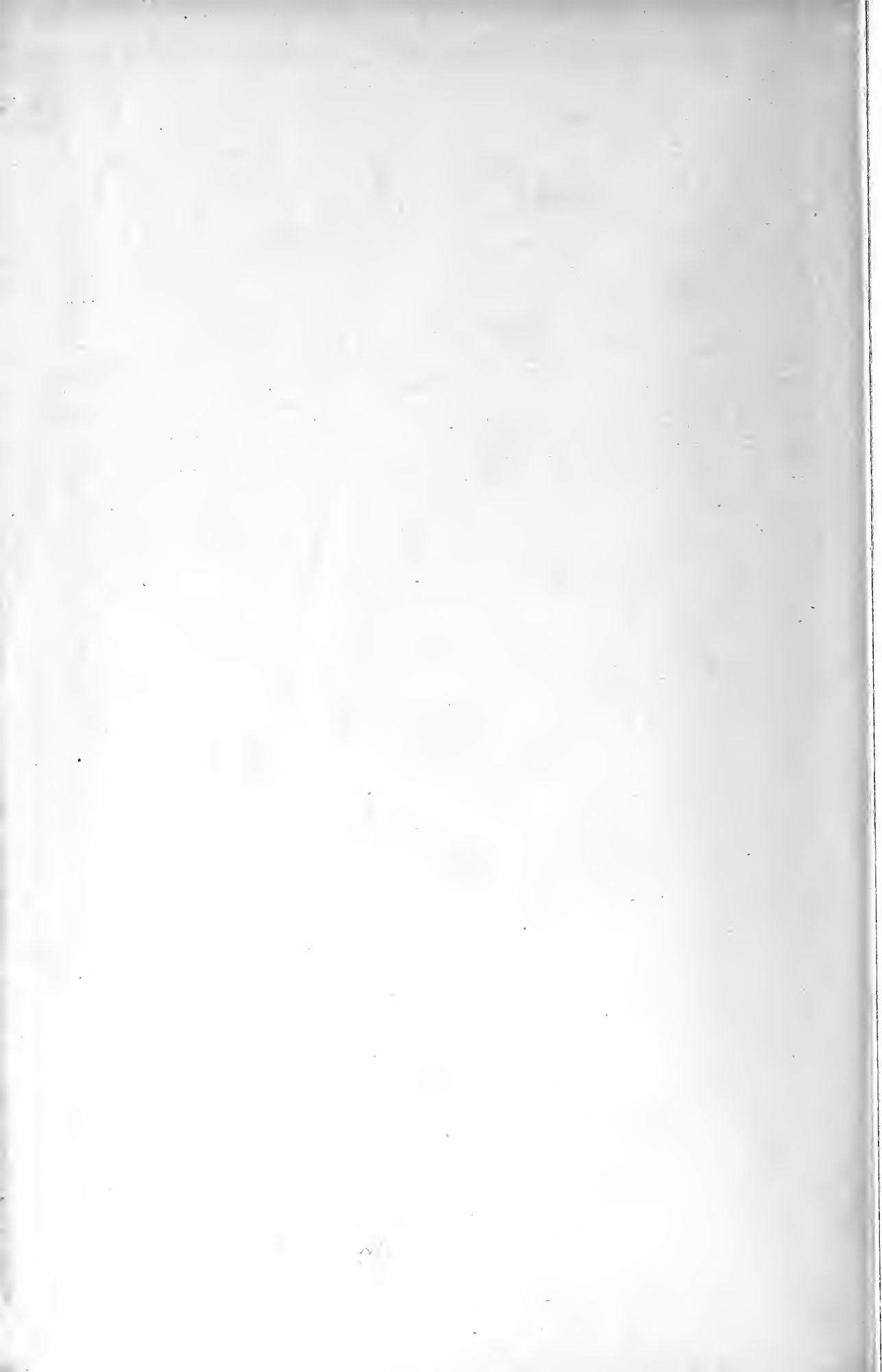
## Alphabetical list of labels—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
"Schaer Brothers & Company, Hog and Chicken Cholera Cure and Preventative."	J. and C. Schaer and J. C. Schüelzkey.	5,688	Sept. 4	44	1072
"Searching Syrup." (For a Cough)	W. Shafer.	5,596	May 15	43	760
"Shively's Celebrated Catarrh Remedy"	S. A. Shively	5,473	Jan. 17	42	204
"Sing Sing Lime"	W. J. Gilmore	5,744	Nov. 27	45	950
"Slavin's Infallible Female Tonic"	M. Slavin, J. T. Huntington, and W. H. Kelley.	5,737	Nov. 13	45	714
"Special." (For Ointment)	E. B. Bunting	5,573	May 1	43	514
"Special Favours." (For Cigarettes)	Kinney Tobacco Company	5,538	Apr. 3	43	2
"Specially Prepared for —" (For Preserves, Confectionery, &c.)	C. Southwell & Co	5,527	Mar. 13	42	1066
"Spencer's Fumigating Diphtheritic Pastilles. A Fumar Antiseptic for the Prophylactic and Specific Treatment of Diphtheria."	T. D. Spencer	5,466	Jan. 10	42	100
"Standard Stock Liniment"	F. E. Sauborn.	5,583	May 1	43	514
"Steel." (For Curry-Combs)	W. P. Kellogg	5,767	Dec. 11	45	1196
"Stein, Bloch & Co., Wholesale Tailors"	Stein, Bloch & Co.	5,458	Jan. 3	42	2
"Stonaker's Cement"	W. Stonaker	5,658	July 17	44	226
"Sure Venereal Cure"	Wright, Heilig & Co.	5,599	May 15	43	760
"Sweet Gum and Honey"	J. Jacobs	5,637	June 26	43	1400
"Taylor's Rheumatic Cordial"	W. S. Taylor	5,723	Oct. 23	45	350
"Temporary Enameling Cream"	E. J. Daniels	5,528	Mar. 20	42	1172
"The Balm of Zanthorea." (For a Medicine)	F. Ives.	5,578	May 1	43	514
"The Best Tonic"	P. Best Brewing Company	5,495	Feb. 21	42	728
"The 'Best' Tonic"	Phillip Best Brewing Company	5,569	Apr. 24	43	391
"The Boston Feeder." (For Nursing Bottles)	Dean, Foster & Co.	5,586	May 8	43	636
"The Celebrated South of England Sauce"	E. F. Smith	5,718	Oct. 16	45	238
"The Famous Lunch Milk Biscuit"	C. D. Boss & Son	5,498	Feb. 28	42	832
"The Feather Weight." (For Dress Shields)	I. B. Kleinert.	5,588	May 8	43	636
"The Five Cent Tea"	J. C. Barkley	5,716	Oct. 16	45	238
"The Greatest on Earth. Dr. Karl's Bronchitis Balsam"	E. W. Chellis	5,762	Dec. 11	45	1196
"The Handy Adjustable Combination for Wash Tray Wastes"	F. Adee & Co.	5,726	Nov. 6	45	594
"The High Arm Philadelphia Singer." (For Sewing Machines)	H. K. Flint and I. K. Hipple.	5,760	Dec. 4	45	1072
"The Hip-Jointa Corset"	C. A. Griswold.	5,672	Aug. 7	44	572
"The Howard Album Interchangeable Cards"	I. H. Brown.	5,491	Feb. 21	42	728
"The Niagara White Grape Company"	The Niagara White Grape Company	5,595	May 15	43	760
"The Sioux Indian Antidote." (For a Medicine)	E. G. Davies.	5,585	May 8	43	636
"The U. S. Checker-Diamond Problem." (For a Game or Puzzle.)	L. Nance.	5,661	July 24	44	346
"The Von Graef Brain and Nerve Troches"	L. B. Jones	5,694	Sept. 11	44	1190
"The Von Graef Hepatic Troches"	L. B. Jones	5,693	Sept. 11	44	1190
"The Von Graef Neuro-Renal Troches"	L. B. Jones	5,691	Sept. 11	44	1190
"The Von Graef Pulmonary Troches"	L. B. Jones	5,692	Sept. 11	44	1190
"The Wonderful Spanish Herb Cure"	C. B. Russell	5,778	Dec. 25	45	1464
"Thuja Soap"	C. F. Lord	5,683	Aug. 28	44	948
"Tip Top Smoking and Chewing Tobacco"	Gradle & Strotz.	5,604	May 22	43	890
"Tonic Alternative Bloodbuilder and Blood Renewer"	J. W. Cole & Co.	5,776	Dec. 25	45	1464
"Triangular." (For Biscuits)	Van Derveer & Holmes Biscuit Company.	5,555	Apr. 10	43	120
"Trimble's Ozark Mountain Herb Salve"	R. P. P. Trimble.	5,615	May 29	43	988
"Truesdale's Healing Salve, 'Boro' Thymol Compound"	J. T. Woodhull.	5,510	Mar. 6	42	966
"Turner's Hair Tint"	Finlay & Brunswick	5,610	May 29	43	988
"Tyre's Southern Carmalative"	W. R. Tyre.	5,485	Feb. 7	42	494
"Underwood's Copying Ink Ribbon"	J. Underwood & Co.	5,467	Jan. 10	42	100
"Underwood's Indelible Copyable Ribbon"	J. Underwood & Co.	5,468	Jan. 10	42	100
"Underwood's Record Ink Ribbon"	J. Underwood & Co.	5,469	Jan. 10	42	100
"Union Print Works." (For Textiles)	W. H. Locke, Jr.	5,476	Jan. 24	42	300
"Vacuum." (For Feed Water Purifiers and Heaters.)	W. Webster & Co.	5,646	July 3	44	2
"W. C. Allen's Nerve Balm"	L. J. Bailey, G. W. Willis, and W. C. Allen.	5,540	Apr. 10	43	120
"W. N. Le Page's Improved Process Family Glue"	Le Page Glue and Cement Company.	5,700	Sept. 25	44	1404
"W. N. Le Page's Improved Process Family Glue"	Le Page Glue and Cement Company.	5,702	Sept. 25	44	1404
"Wadleigh's Little Vegetable Pills"	F. R. Wadleigh	5,664	Aug. 28	44	948
"Wadleigh's Rheumatic Cure"	F. R. Wadleigh	5,696	Sept. 18	44	1296
"Walker's Rheumatic Cure"	W. N. Seaton.	5,552	Apr. 10	43	120
"Wanamaker's Shoe Dressing"	J. Wanamaker.	5,556	Apr. 10	43	120
"Washboard Soap"	J. S. Kirk & Co.	5,513	Mar. 13	42	1066
"Wash tub Soap." (For Laundry Soap)	J. S. Kirk & Co.	5,507	Mar. 6	42	966
"Weigle's Malaria and Ague Exterminator"	G. H. Weigle	5,706	Sept. 25	44	1404
"Welch's Ægopodium, A Positive Cure for Rheumatism and Gout."	W. C. Welch, Jr.	5,459	Jan. 3	42	2
"West India Balsam of Horehound and Coltsfoot"	I. W. Earnest.	5,577	May 1	43	514
"West India Hair Tonic and Dandrifuge"	I. W. Earnest.	5,574	May 1	43	514
"West India Liver Elixir"	I. W. Earnest.	5,575	May 1	43	514
"West India Skin Cream"	I. W. Earnest.	5,654	July 17	44	236
"West India Tonic Elixir of Sarsaparilla"	I. W. Earnest.	5,576	May 1	43	514
"White Cap." (For Laundry Soap)	J. S. Kirk & Co.	5,745	Nov. 27	45	950
"White Filtered Stainless Sewing Machine Oil"	N. D. Stoops	5,719	Oct. 16	45	238
"White Lavolite." (For a Washing Compound)	J. S. Kirk & Co.	5,509	Mar. 6	42	966
"White Russian Bath." (For Soap)	J. S. Kirk & Co.	5,515	Mar. 13	42	1066
"White's Worm Powders." (For a Medicine)	Stockton & Willis.	5,554	Apr. 10	43	120
"Whitney's Spring Tonic and Alterative Compound"	W. Whitney.	5,497	Feb. 21	42	728
"Williams Sure Cure." (For Salve.)	G. H. A. Williams	5,647	July 3	44	2
"Wm. Radam's Microbe Killer"	W. Radam	5,463	Jan. 10	42	100
"Woodbridge's Wonderful Cure"	Stiner, Heumber & Co.	5,597	May 15	43	760
"Yards in Detail." (For Bleached Goods)	N. H. Baker	5,505	Mar. 6	42	966
"You Can Fill Your Own Teeth"	E. J. King	5,731	Nov. 6	45	594
"Zinitha Soap"	J. S. Kirk & Co.	5,506	Mar. 6	42	966

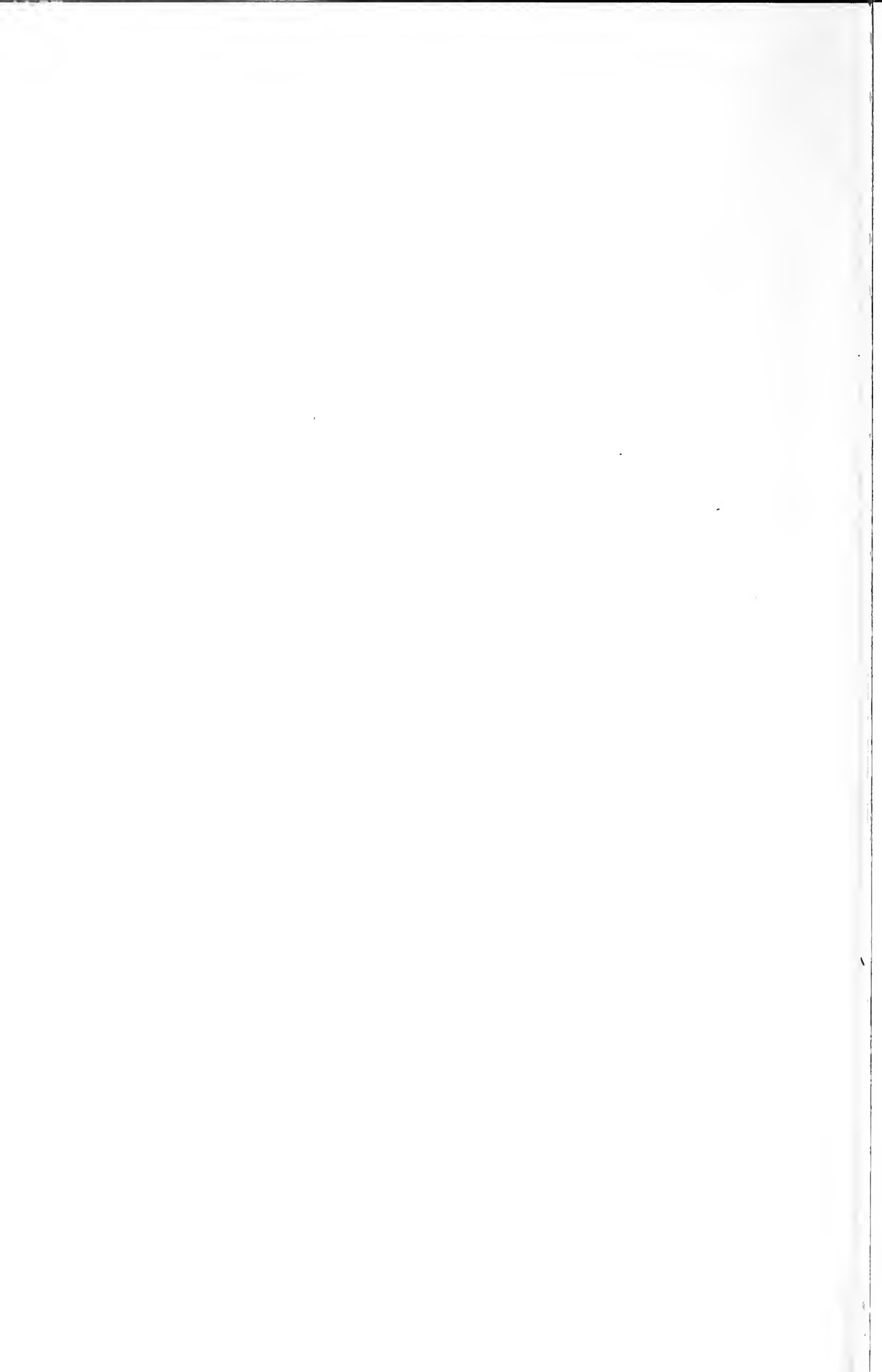


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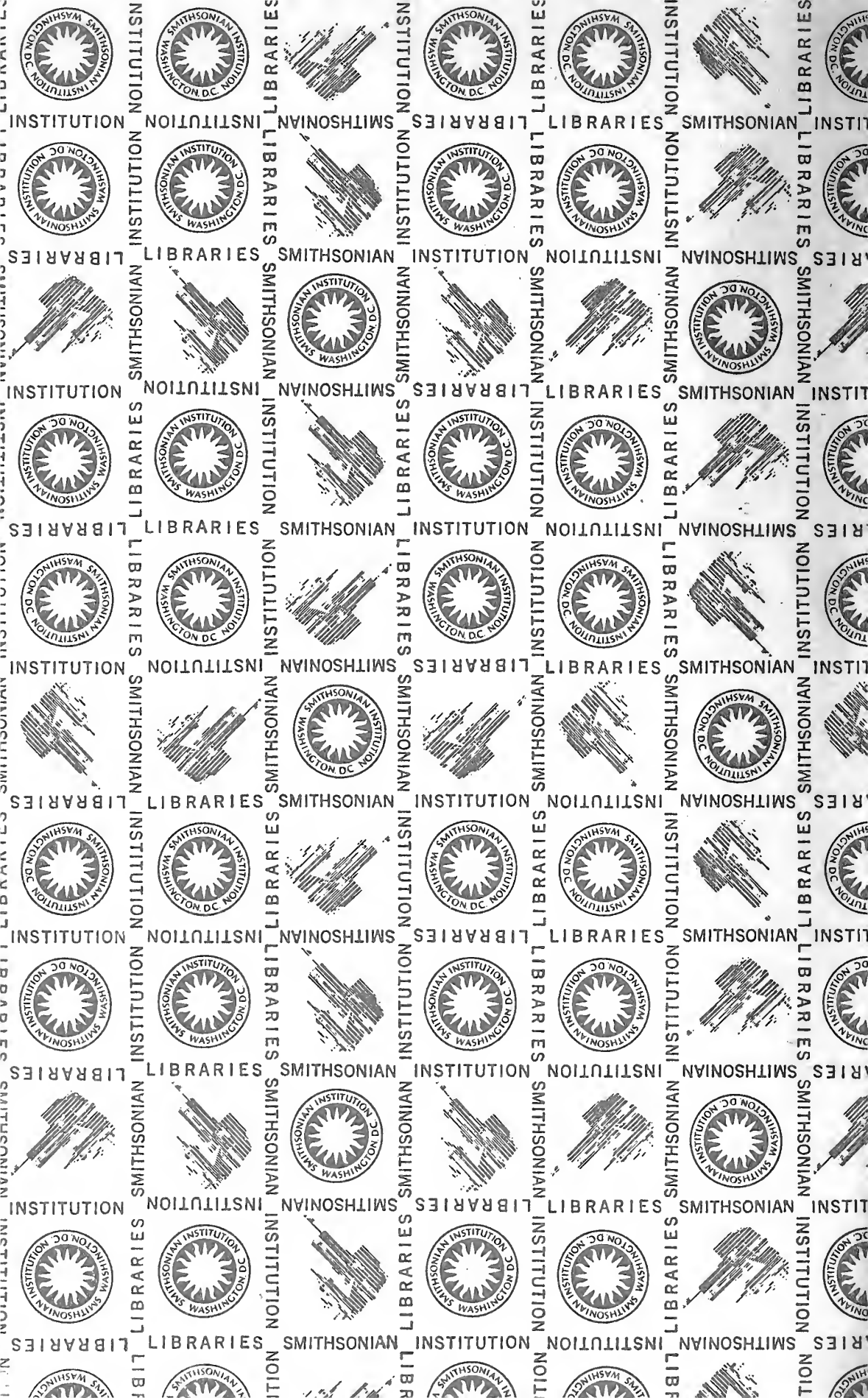
Invention.	Patentee.	No. of patent.	Date of patent.	Disclaimer filed.	Official Gazette.	
					Vol.	Page.
Boiler coverings.....	Henry W. Johns .....	262,429	Aug. 8, 1882	May 1, 1888	43	636
Car-door hanger.....	Dennis F. Van Liew.....	245,035	Aug. 2, 1881	Mar. 21, 1888	42	1294
Cement for steam-joints.....	Samuel Otley .....	191,249	May 29, 1877	Nov. 26, 1888	45	1872
Combined carriage and chair.....	Charles F. Fenny and Thomas J. Hobbs. (Reissue.)	8,166	Apr. 9, 1878	June 9, 1888	43	1352
Corrugated-metal rolling-shutters.....	James G. Wilson .....	296,373	Apr. 8, 1884	May 8, 1888	43	760
Dies for securing heel-plates to rubber shoes...	Frederick Richardson .....	296,623	Apr. 8, 1884	Sept. 26, 1888	45	130
Embossing upon plastered walls and other surfaces.	John H. Harding .....	278,238	May 22, 1883	Jan. 19, 1888	42	396
Hoisting apparatus and safety-hatches.....	James W. Osgood .....	124,614	Mar. 12, 1872	Feb. 8, 1888	42	618
Paper-bag machine.....	Frederick E. Porter .....	205,133	June 18, 1878	Mar. 22, 1888	42	1294



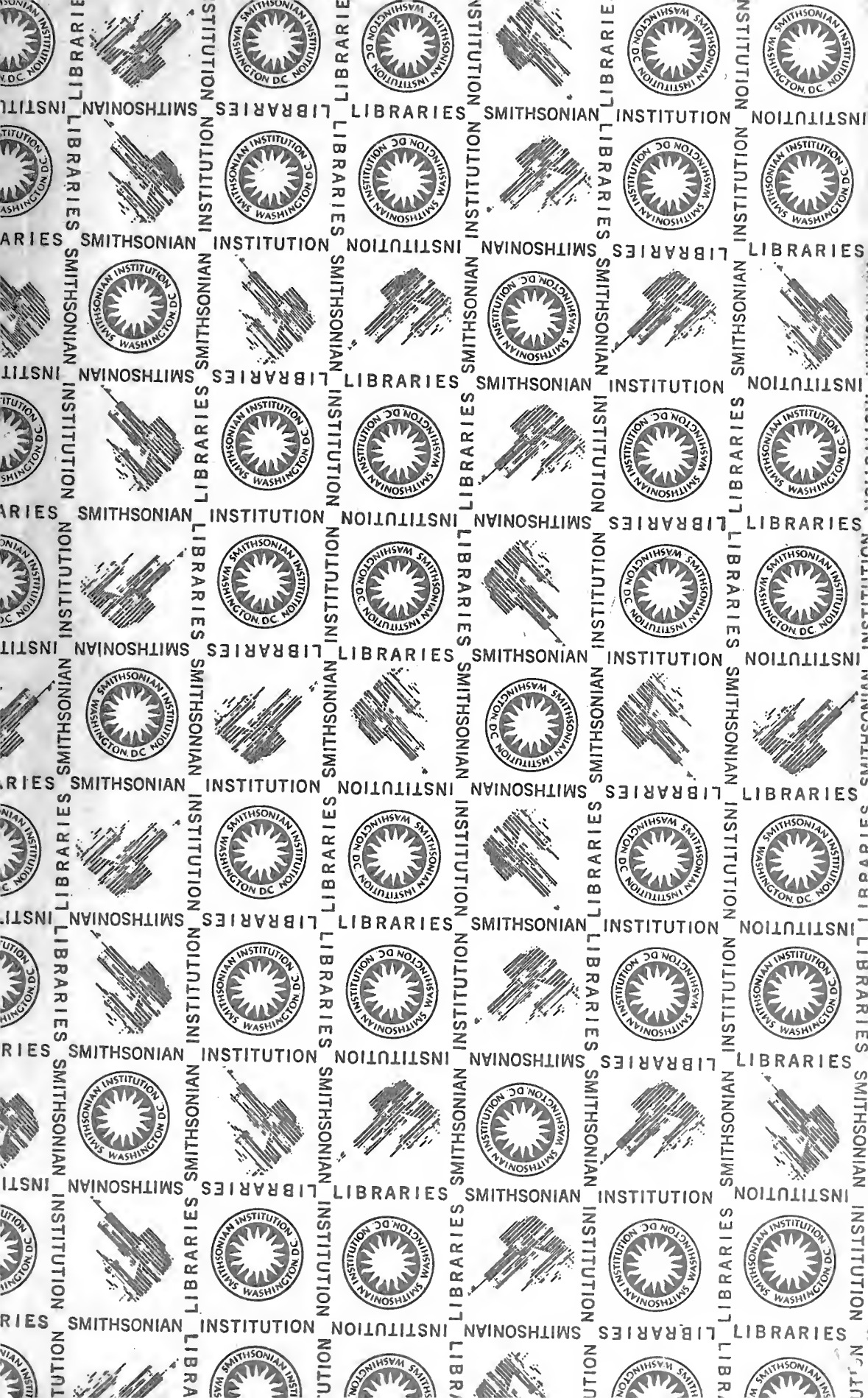




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